THINKING OUTSIDE THE BOX

Edited by

Keith G. Banting

Richard P. Chaykowski

Steven F. Lehrer

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INNOVATION IN POLICY IDEAS

Essays in Honour of
Thomas J. Courchene

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Thomas J. Courchene was born in Wakaw, Saskatchewan, and educated at the universities of Saskatchewan, Princeton, and Chicago. Tom is a Fellow of the Royal Society of Canada and an Officer of the Order of Canada, holds honorary degrees from the universities of Western, Saskatchewan, and Regina, and is the recipient of numerous awards. In 2000 he was awarded the Canada Council Molson Prize for lifetime achievement in the social sciences. On this occasion, the jury noted:

> Thomas Courchene's cross-disciplinary approach to issues ranging from economics to federal-provincial relations to law and health has often been controversial though seminal in shaping Canadian public policy. He is a prolific writer whose sharp and versatile intellect has influenced a whole generation of students and stimulated lively and constructive public debate. Thomas Courchene is one of Canada's visionaries and is known as a man of infinite capacity and integrity.

Currently Professor Emeritus at Queen's University and Senior Scholar at the Institute for Research on Public Policy, when not golfing or curling, Tom continues to spend time on teaching and research.

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A CELEBRATING TOM COURCHENE

TOM COURCHENE: INNOVATIVE THINKING IN CANADIAN POLICY

KEITH G. BANTING, RICHARD P. CHAYKOWSKI, AND STEVEN F. LEHRER

This volume celebrates the career and work of Thomas Courchene, and its title perfectly captures the inventiveness and creativity of his policy research. In addition, the diverse set of contributors who have come together in this project and the range of topics they tackle in their chapters reflect the breadth and themes of Tom's own scholarship. In a career that has spanned a half century, Tom has continually challenged conventional thinking about the leading economic and social policy issues of the day, even as his own thinking has evolved and taken him in new and inventive directions. In what follows, we survey a number of the major signposts of Tom's career, various attributes of Tom that have made him so successful as a policy scholar, his philosophical approach, and some of the main themes of his policy scholarship. We conclude with a brief overview of the content and contributions of the policy papers in this volume, which have been drawn together in honour of Tom Courchene.

TOM'S CAREER

Tom's roots lie deep in Saskatchewan. Born in the tiny town of Wakaw, Tom completed his bachelor of arts at the University of Saskatchewan. He went on to Princeton University for his PhD, which was supervised by Professor Ed Kane, and then to the University of Chicago for a post-doctoral year. From 1965 to 1988, Tom was a professor of economics at the University of Western Ontario, after which he moved to Queen's University to become the founding director of the School of Policy Studies.

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From 1992 until his retirement in 2012, Tom held the Jarislowsky-Deutsch Professorship in Economics and Financial Policy at Queen's, where he was a member of the Department of Economics, the School of Policy Studies, and the Faculty of Law.

Tom also found a home in a succession of research institutes, both inside and outside the university world. He was chair of the Ontario Economic Council from 1982 to 1985, and a member of the Economic Council of Canada for three years. He was a Senior Fellow of the C.D. Howe Institute from 1980 to 1999, at which point he became a Senior Scholar at the Institute for Research on Public Policy in Montreal, a position he continues to hold. Within Queen's, he served as director of the John Deutsch Institute for the Study of Economic Policy, as well as the Institute of Intergovernmental Relations.

Tom's scholarly achievements have been recognized in many ways. He was elected as Fellow of the Royal Society of Canada in 1981, at a relatively early stage of his career. More recently, he has received honorary doctorates from the University of Western Ontario, the University of Saskatchewan, and the University of Regina. On the occasion of the 100th anniversary of the University of Saskatchewan in 2007, Tom was selected as one of the 100 Alumni of Influence. He is a recipient of both the Doug Purvis Memorial Prize and the Donner Prize, both of which recognize excellence in policy analysis, as well as the Molson Prize for lifetime achievement in the Social Sciences and Humanities. In 1999, he was invested as an Officer in the Order of Canada.

TOM AS POLICY SCHOLAR

The citation accompanying Tom's election to the Order of Canada recognized him as "one of the most influential economists in Canada." What has made Tom Courchene so successful as a policy scholar and analyst? His impact does not flow from the sheer volume of his publications. To be sure, the total number is stunning: Tom is the author or editor of some 60 books and has published some 300 academic papers. But numbers alone do not guarantee influence. Nor is it the breadth of Tom's research contributions, although there have been very few economic policy debates in Canada over the last generation to which Tom has not contributed. Yet breadth can sometimes lead to superficiality and being ignored. Nor can Tom's influence be measured by the number of his policy proposals that were directly adopted by the governments of Canada. Such a count would radically understate his contributions.

The real secret to Tom's success lies in four, more distinctive characteristics of his scholarship. First, Tom is a public intellectual as well as a member of the academy. He has been driven less by a desire to advance the theoretical frontiers of his discipline than by a commitment to understand real-world problems and to help craft policy responses to them. As

Gilles Paquet notes in his chapter, quoting Dewey, "in the beginning was the issue." This approach has been sharpened by Tom's amazing instinct for anticipating issues that are still just over the horizon. One of Tom's favourite quotations is from Wayne Gretzky, who explained his success in hockey by observing: "I skate to where the puck is going to be, not to where it is." Tom has a similarly uncanny ability to anticipate where the policy puck will be tomorrow.

Second, Tom is instinctively multidisciplinary. Gilles Paquet describes Tom as a "prudent heretic" who has operated outside the mainstream of economics without fully surrendering his credentials within it. Despite his heretic nature, Tom served as president of both the Canadian Economics Association and the North American Economics and Finance Association. Nonetheless, as Michael Prince observes in his chapter, Tom has been addicted to seeing policy issues from diverse perspectives, blending new ideas from multiple disciplines. Citations in a Courchene paper are as likely to be to the works of political scientists and sociologists as to economists. Unconstrained by disciplinary boundaries, he has let his imagination roam.

Third, Tom writes in a manner accessible to the wider policy community, without technical language and complex methodology. Moreover, many of his most important contributions have been published by policy research institutes that work hard to get their products into the hands of policy-makers and journalists. Tom's work has gained wider exposure as a result. And his titles are great. Who can forget a title like *Forever Amber* or "Mon Pays, C'est L'hiver"? Admittedly, for the uninitiated, a talk by Tom is a bit like drinking from a fire hose, as the ideas pour out of him at an incredible pace. But listening to Tom is always worthwhile, and people come back for more.

Fourth, and most importantly of all, Tom is influential because he thinks outside the box. He has been fearless in suggesting policy ideas that are beyond the boundaries of current debate. Many of his ideas were regarded as "off the wall" when he first proposed them, but over time they seeped into policy discourse. A classic case was his early work on transfer dependency in Atlantic Canada, which was highly controversial when published in 1981. But over time, the paper contributed to a sea change in government thinking about regional development, as Donald Savoie recounts in his chapter: "I can think of no other article that had such a seminal impact on policy-makers, and its influence is still being felt to this day."

Thinking outside the box matters even when policy recommendations are not adopted. Some of Tom's apparent "failures" have left a lasting imprint, expanding the range of options actively debated. In 1996, at a key moment in the shifting intergovernmental balance of power over social programs, Tom advanced his proposal known as ACCESS, suggesting that provinces assume greater responsibility for key programs.

The premiers discussed the proposal during a train ride taking them to an interprovincial conference, and one premier gleefully told the press that he and his fellow premiers from other have-not provinces "threw Courchene from the train." Yet decentralization did become a reality, and the country is still struggling with the coordination issues Tom highlighted. Similarly, his proposal for adopting a "North American euro" or, failing that, pegging the Canadian dollar to the US currency has faced implacable opposition. Nonetheless, thinking outside the box has expanded the range of ideas in the debate.

Thus, the Courchene recipe is to engage seriously in policy debates, anticipate the issues of tomorrow, be multidisciplinary without losing one's disciplinary standing, communicate accessibly, and think outside the box. No wonder Tom Courchene is such a rare treasure.

TOM'S PHILOSOPHICAL APPROACH: MARKET POPULISM

Tom Courchene does not fit neatly into any of the conventional ideological boxes that normally frame policy debates in Canada. Too often, one knows what commentators will say before they start. Not so with Tom Courchene. There is an element of unpredictability in his work, and he can often surprise people who think they know his views.

This does not mean that Tom's scholarship is without philosophical underpinnings. Tom himself calls his perspective "market populism," which in his version has two components: faith in the efficiency and importance of markets; and a concern for social equity, citizen rights, and the capacity of Canadians to chart their own course in North America.[1]

The importance of efficient markets shone through clearly in Tom's early policy work. In his Innis Lecture to the Canadian Economics Association in 1980, Tom warned about what he saw as the politicization of economic life. He worried about a broad movement toward a "protected society" in which special interests – individuals, businesses, and provinces – pressed for increased regulatory protection and, where possible, quasi-property rights in the status quo. The cumulative weight of such protections steadily sapped the capacity of markets to allocate resources efficiently (Courchene 1980). Later in the decade, as globalization and technological change increasingly restructured the Canadian economy, Tom was convinced that all countries, especially countries like Canada with small, open economies, simply had to adapt, and to devise new policy architectures to accommodate the new economy. This emphasis on the

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[1] Tom Courchene's version of "market populism" differs in important ways from the version advanced in the United States by Thomas Frank, who defines it as the belief that markets are a democratic institution, "a far more democratic form of organization than (democratically elected) governments" (Frank 2000).

weight of economic structures has been called economic determinism, including by Michael Prince in his contribution in this volume. But as Michael himself notes, market forces are not the only drivers of policy change in Tom's work. Countries have had to adjust. But policy-makers have some flexibility in how they adjust. The choices made by governments continue to matter.

Faith in the flexibility of markets has also been consistent with Tom's decentralist approach to federalism. He celebrated the opportunities for innovation at the provincial level and the mutual learning that occurs through comparing the successes and failures of different provincial programs. Moreover, he was skeptical that coordination issues in a decentralized system should be dealt with through federal action, and placed considerable hope in the possibility of joint provincial action.

The populist side of Tom's perspective came more strongly to the fore in the 1990s and 2000s. By the time of his 1992 presidential address to the Canadian Economics Association, his primary concern had shifted. He worried that political elites had embraced a neo-conservative strategy of adjustment so completely that "many of our hard-won, postwar gains on the socio-economic front" would be overwhelmed, and that the curtain would descend on "the magnificent dream that began here in Charlottetown" (1992, 760). The challenge for the country, and for Tom, was to find a path among the global pressures to a distinctive economic, social, and political future. In the context of growing regional tensions and constitutional crisis, Tom increasingly drew attention to the role of national social programs as part of the social glue holding the country together.

In his contribution, Gilles Paquet suggests that Tom has been "surprisingly uncritical in not exploring further the trade-off between pro-market populism and egalitarianism." Perhaps, but Tom is a policy analyst, not a philosopher, and in policy terms he believed the trade-off was no longer a major problem. In his magisterial *State of Minds*, Tom argued strongly that in the new economy, a commitment to education and training was the primary instrument of both economic and social progress. In his words, "we are presented with a historically unprecedented societal window, since a commitment to a human capital future is emerging as the principal avenue by which to succeed on both the economic competiveness and social cohesion fronts" (Courchene 2001, 154).

THE POLICY THEMES

The broad themes of Tom's research cover considerable policy territory. Tom has always been known for his work in the area of *monetary policy* and the operation and structure of *financial institutions* – an area of his research that has consistently been influential and where his interest and activity spanned his entire career, from his early work with the C.D. Howe on Canadian monetary policy – *Money, Inflation and the Bank of Canada* (1976) – to the recent policy debates over the development of a national Canadian securities industry. Interestingly, as early as the 1980s, Tom had already written on Ontario's *Proposals for the Canadian Securities Industry* for the C.D. Howe, only to return to this issue some 25 years later.[2] Tom's research on monetary policy and financial institutions always dovetailed nicely with his ongoing policy thinking on the challenges associated with the evolving nature of the Canadian economic union.

Of course, for Tom this has only been one short step away from tackling policy issues associated with *fiscal federalism and related constitutional issues*. Tom recognized early on that the major policy issues in Canada were complex precisely because the economic, political, and legal/constitutional realms in the country were deeply intertwined; thus the major challenges related to fiscal federalism needed to be thought through in more sophisticated and creative ways. Taken in this light, it is not surprising that Tom extended his policy thinking on the economic union to address the federal-provincial division of powers, the system of equalization payments, and the link between fiscal federalism and Canada's Constitution. As a result, Tom tackled the foremost policy issues facing the country, including "constitutional renewal" and the implications of Meech Lake, Aboriginal self-government, and how energy policy has shaped Canadian federalism.

Social policy is an arena in which Tom's "outside the box" thinking has made an enormous impact. Tom's work on social policy typically focused on how to make it work for Canada and for Canadians, including his ongoing interests in the financing of social policy, regional development and social policy, and social policy in the era of the emerging "knowledge economy." Tom consistently placed his finger on the key social policy issues, the most important goals, and the main principles underlying the case for reform; he then creatively provided a blueprint for change.

Nowhere is the combination of the case for reform, the innovative thinking, and the blueprint for change more evident than in his C.D. Howe volume *Social Canada in the Millennium: Reform Imperatives and Restructuring Principles*, which in effect constituted the output of a one-person social policy commission (Courchene 1994). This influential volume contained a wealth of inventive recommendations for policy changes and created a larger case for the need to renovate Canada's social policy. Tom visualized a *coordinated* set of reform options across a broad range of individual

[2] Tom served as an expert on a securities legal challenge, in 2011, for the Government of Alberta in a case that found its way to the Supreme Court of Canada; subsequently, he wrote a paper on the securities industry. As early as 1985, Tom wrote "A Really Secure Industry or a Real Securities Industry," which was a submission to the Ontario *Securities Industry Review*.

social policy programs, including unemployment insurance, family care programs, social assistance programs, programs that support human capital formation, and the health care system, all in the context of Canada's system of fiscal federalism. Thus another significant contribution of this work was to encourage us to look well beyond the ordinary program-by-program "silo" approach to policy reform.

Over the years, Tom was also able to leverage relevant aspects of his thinking in these more targeted areas to address the big public policy themes of the day and challenges of the future. He did precisely this in the key areas of human capital formation and economic growth in his *State of Minds* (Courchene 2001), and the evolution of economic regionalism in his *From Heartland to North American Region State* (Courchene and Telmer 1998). These works exemplify how Tom has always been keenly aware, in his policy thinking, of the great tension in Canada between its historical process of regional economic development and its emerging place in relation to the United States and in the international economic sphere. His work on human capital, in particular, underlines Tom's capacity for bold policy thinking. While many policy observers have emphasized the need for an industrial policy that moves Canada beyond resources into manufacturing, Tom laid out the case for an innovative human capital strategy that would provide a foundation for economic growth and allow Canada to successfully confront a broader set of economic and social policy challenges in a global era.

Similarly, Tom's recent work *Rekindling the American Dream* (2011), on inequality and the declining prospects for economic advancement, illustrates his deep understanding of the interconnections between social policy and the economic development that supports it. This work also continues the long Courchene tradition of uncovering the implications of economic and social change in America for the future of Canada.

OUTLINE OF THE BOOK

The chapters in this volume are organized into sections that reflect some of the main thematic areas of Tom's research over his lifetime, as well as his emerging interests (e.g., his recent work on the declining "American Dream"). The four main sections are (a) Federalism and National Policy; (b) Economic Policy; (c) Canada's Constitutional Challenge; and (d) Inequality and the Distribution of Income.

The volume begins, however, with a distinctive and insightful consideration of "Tom Courchene as *Savanturier*" by Gilles Paquet. Fittingly, though, at the conclusion of the volume, Tom himself has the last word – both on himself as *Savanturier* and on policy thinking outside the box.

The volume's largest section is not surprisingly devoted to seven chapters that discuss issues related to federalism and national policy. In "The Dutch Disease and the Canadian Economy: Challenges for Policy-Makers," Robin Boadway, Serge Coulombe, and Jean-François Tremblay discuss the implications of the decentralized nature of the Canadian federation for the policy options available when shocks to natural resource endowments may have adverse effects. These adverse effects are often referred to as consequences of the Dutch disease. Intuitively, the Dutch disease can be thought of as taking place if Canada's oil and gas boom drives up the exchange rate to the point that it is hurting other export-dependent parts of the national economy such as Ontario and Quebec. Since different sectors of the Canadian economy are primarily based in different provinces, the impact of booming natural resource prices on the foreign exchange rate has become highly politicized. While empirical evidence on whether the symptoms of Dutch disease appeared recently in Canada remains mixed, the authors use the core-periphery model described in Krugman (1991) to generate predictions on the implications of Dutch disease in Canada. In the spirit of Tom's work, the authors propose new policy options that enrich the debate in this area. They point out that a unique feature of natural resources, including oil and gas, is their potential to generate rents for the public sector. These new directions may provide the path through which all Canadians could benefit from resource booms in the future.

Within Canada, the delivery of health care is determined by each of the ten provinces and three territories, which have their own detailed strategic frameworks for their constitutional jurisdictions. In *"Mon Pays, C'est L'Assurance-Maladie:* The Dissonant Harmony of Canadian Health-Care Federalism," Katherine Fierlbeck examines the recent dynamics of health-care federalism in Canada and considers the consequences of a further shift toward greater decentralization in health-care governance. Much of this discussion is conducted within the context of Tom's 1996 ACCESS proposals. The discussion questions whether the set of common goals and standards that had for decades been the hallmark of Canadian health-care federalism have now been driven out by the structural reforms to the health-care system over the last 15 years. Thus, the chapter concludes by discussing the uncertain future of whether Canadian federalism will in fact transform market-preserving federalism, or whether market-preserving federalism will continue to transform Canadian federalism.

In "A National Energy Strategy for Canada?," Bryne Purchase also considers the implications of the expanded constitutional affirmation of provincial natural resource rights. This chapter conducts a simple exercise in political economy by devising a national energy strategy that emphasizes the importance of first building local coalitions. Similarly, in "Courchene and Social Policy Analysis: Retirement Income Reform and Actuarial Federalism in Canada," Michael Prince takes the methods that Tom used to analyze public policy and applies them to recent developments in elderly benefit and pension reforms in Canada. This chapter similarly concludes that the successful development of policies in the national interest will require a solid foundation in coalitions developing in subnational communities. Taken together, these two chapters illustrate the challenges that currently exist in devising national policies within the constraints imposed by Canadian federalism.

Tom's ability to reshape the development of public policy despite substantial initial resistance is summarized in "Influencing Public Policy from Outside the Box: Courchene and Regional Development" by Donald J. Savoie. As noted earlier, this chapter can be described as a case study of Tom's impact, in this case in assessing the federal government's approach to regional economic development policy. By introducing a neoclassical perspective from the economics toolbox, the chapter demonstrates how Canada's regional development efforts constrained development in that region, and concludes that these effects are still being felt today.

An area where policy instruments have successfully reduced the incidence of risky health behaviours is cigarette smoking. Lisa Powell, in a chapter entitled "Can Taxes Help Cure the Canadian Obesity Epidemic? Lessons Learned from the Policy Debate in the United States," considers whether many of the same policies would reduce obesity. Specifically, what is the evidence base related to whether consumption taxes tied to sugar-sweetened beverages reduce obesity? Many fiscal tax treatments have already been considered in several American states, and the chapter not only discusses their potential effectiveness but also outlines the industry opposition to these taxes. The chapter concludes by outlining tax designs that may improve diet and weight outcomes.

In "Old Federations and New Social Risks: Reproductive Health in Canada and the United States," Melissa Haussman contrasts how the nature of federalism in Canada and the United States influenced the introduction of women's rights to reproductive services. The two countries have moved at different times in introducing contraceptive policy and reforming abortion policy in response to national events. However, these initiatives were introduced in a period of significant decentralization in health-care services in both countries, resulting in considerable regional variation in the availability of such services in both cases. Moreover, the author expects there will be further drift rather than convergence in reproductive service policies between the nations in the coming years.

The next three chapters of this volume relate to many of Tom's initial academic publications that would be classified as macroeconomics research with a particular focus on monetary policy. Pierre Fortin conducts a macroeconometric exercise in the chapter titled "The Macroeconomics of Downward Nominal Wage Rigidity: A Review of the Issues and New Evidence for Canada." Specifically, using Canadian annual macrodata collected over a 56-year period (1956–2011), he estimates an aggregate wage change equation. He then uses the estimates to test predictions from economic theories that describe the long-run relationship between inflation and unemployment, sometimes referred to as the Phillips curve. The evidence presented suggests that wages in Canada are quite inflexible and are generally not cut in periods of high unemployment, contrary to classical models that predict high degrees of wage flexibility. Further, these results are suggestive that downward nominal wage rigidity does matter at the macro level in Canada, and as a result the long-run Phillips curve would be negatively sloped and convex at low rates of inflation. From a policy perspective, these results imply that Canada's recent 20-year-old choice of a 2 percent inflation target rate could have significant permanent costs in terms of higher unemployment and underutilization of economic potential. This evidence, Fortin argues, should motivate Canadian policy-makers to once again debate whether there would be significant gains from lowering unemployment by establishing a higher target rate of inflation in the future.

Since the 2008 financial crisis, many public commentators have questioned why macroeconomist theorists did not anticipate this event and whether they are providing effective guidance to those who truly implement monetary policy. Peter Howitt evaluates an implication of these critiques in the chapter titled "What Have Central Bankers Learned from Modern Macroeconomic Theory?" Howitt begins with an impressive and accessible survey of how the economics profession has now reached a consensus on the methodology theorists should employ but points out that this diverges from the actual practice of central banking. Howitt disagrees with claims that the inflation-targeting regimes performed by many central banks, including the Bank of Canada, were motivated by academic research related to the time-consistency of policy. As in Fortin's chapter, he questions whether low-inflation targeting remains appropriate. The chapter concludes with a wish that macroeconomic theorists would now begin to think outside the box by considering a more diverse ecology of approaches to macroeconomic theory including agent-based computational economics as well as more conventional equilibrium theories. This prescription will not only yield benefits to the academic community but may eventually lead to new policy recommendations directed to the behaviour of key macroeconomic variables.

The final chapter in this section, "Why Ontario Did Not Become a Region-State: Revisiting the Courchene Thesis" by Alex Ripley and Stephen Clarkson, represents a shift from monetary policy. The authors explore the experience of Ontario with international trade over the last decade. Through a political lens, they examine why forecasts of Ontario's future that Tom made in a 1998 paper written jointly with Chris Telmer have failed to play out.

The third section of the book is devoted to two essays that examine political and legal issues related Canada's constitutional challenge. In "Canada's Constitutional Legitimacy Deficit: Learning to Live with It," David Cameron reflects on the deficit in constitutional legitimacy that resulted from the 1982 patriation of Canada's Constitution. Many commentators, including Cameron himself, believed at the time that the

Canadian federation would remain highly unstable and insecure as a result. However, by developing a broader interpretation of different sources of legitimacy, Cameron argues that Canada's stability in the future is unlikely to be threatened by the breach in 1982. Rather he argues that challenges will likely arise either from systematic mismanagement or from a crisis that would shake the federation to its foundations. The next contribution by Kathy Brock, titled "Challenging Contemporary Interpretations of Section 94," reconsiders the validity of the four arguments that use section 94 to justify Quebec-based asymmetry and special status, a constitutional veto, and rights for Quebec. The chapter concludes by proposing that the benefits of federalism can potentially be realized by provinces negotiating without adopting commitment tactics that draw on section 94.

The final section of the book consists of three essays exploring inequality and the distribution of income within Canada. Since the publication in 2014 of Thomas Piketty's book, *Capital in the Twenty-First Century*, issues related to these areas have become one of the hottest topics in policy circles in Canada and the rest of the world. Devising policies that could promote equity with few distortions to economic efficiency is challenging, and many politicians have seized upon public resentment toward the top 1 percent when proposing changes to tax policies. This topic is sure to inspire substantial out-of-the-box thinking over the next decade.

Miles Corak's chapter, "Income Inequality, Equality of Opportunity, and Intergenerational Mobility," presents a clear and accessible overview of contemporary research, which documents that the recent increases in income inequality have been accompanied with fewer opportunities for the disadvantaged to move across the income distribution and a decrease in intergenerational mobility. Corak introduces "The Great Gatsby Curve," a phrase coined by Alan Krueger during a speech while serving as the chairman of the Council of Economic Advisors in the United States. This curve demonstrates that across countries there are clear links between earnings mobility across generations and inequality. For instance, among children born in the 1960s in the United States, roughly 50 percent of any advantage or disadvantage of their parents is passed on. This rate is over two and a half times the magnitude witnessed in Scandinavian countries where there is more evidence of economic opportunity. Canada does not exhibit the same degrees of inequality in college attendance and economic resources across deciles of the income distribution as in the United States, and Corak argues that this finding may be a result of significant policy differences between the nations. Nevertheless, the author makes the case that further changes in public policy are now needed to stem these steeping relationships and suggests attention be paid to policies that promote the human capital of children, particularly the relatively disadvantaged.

Brian Murphy and Michael Veall present original econometric analyses of Canadian data in "A Tale of Two Cities? The Surge of Top Incomes at the City Level in Canada." This chapter contributes to a burgeoning literature that uses tax-filer data over a 25-year period to document and describe the surge of top incomes within nations. This study provides the first evidence that compares distributions within and between Canadian cities. The results are fascinating and suggest that the top income shares have an important geographic component. The cities of Calgary and Toronto account for about half of the national surge and are home to about 37 percent of filers in the national top 1 percent. The interprovincial migration rate of the top 1 percent is lower than the overall rate, and the data clearly indicate that both rates have been falling rather than rising. From a policy perspective, the most interesting finding is that the rise in Alberta's share of top 1 percent interprovincial migration is only weakly associated with the introduction of the flat tax in 2001. This chapter demonstrates the value of using administrative data to provide a more accurate snapshot of inequality. The behavioural response to tax rates is smaller than what is often anecdotally suggested, which is not only policy relevant but the analyses should also alleviate concerns raised by critics should the Canadian government consider expanding access to these rich data sources.

Policy circles have paid much less attention to earnings mobility across generations than they have to the earnings mobility of immigrants to Canada. Substantial attention in the popular press documents challenges facing immigrants and their assimilation within the Canadian labour market. Drawing on the rich administrative data that combines the large Immigration Database of immigrant landings in Canada with the immigrants' annual income tax filings, Michael G. Abbott and Charles M. Beach present valuable new evidence in "Immigrant Earnings Mobility by Immigrant Admission Category in Canada." This chapter introduces transition matrices to characterize how the earnings of immigrants change over the first ten years after their landing in Canada and thoroughly investigates whether there is heterogeneity in these patterns by gender, across the income distribution, and by immigrant admission category. The authors present four main empirical findings: (a) earnings mobility is higher for immigrants than natives, (b) earnings mobility is higher for female than male immigrants, (c) there are differences in earnings mobility across the four immigrant admission categories, and (d) independent economic immigrants who were skill-assessed had by far the highest median earnings levels in all ten years of their first post-landing decade in Canada. The chapter concludes by demonstrating how an evidence base can inform discussions of reforms to Canadian immigration policy.

As noted earlier, the volume concludes with a chapter by Tom himself titled "Thinking Outside the Box: Reflections of a Market Populist" and the presentation of his curriculum vitae. The nature of Tom's self-reflections underline the fact that he continues to think outside the box with both deep insight and intellectual elegance. We are privileged to have had Tom as our colleague.

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TOM COURCHENE AS *SAVANTURIER*

GILLES PAQUET

INTRODUCTION

Thomas J. Courchene is a political economist, a diagnostician, a social architect, and a public intellectual, but mostly a *savanturier* – a sort of clever crasis of the two words *savant + aventurier* invented by Raymond Queneau – a label that most aptly captures the nature of our friend.

In this celebratory note, I first provide a tiny bit of historical context for those who either might be too young to have been informed, or older but prematurely amnesiac about the partial lobotomy suffered by the Canadian economic discourse in the latter part of the last century. Second, I review a small sample of Tom Courchene's extensive written work, unlikely to be dealt with by other contributors to this volume, but illustrating his craft rather well. In conclusion, I add a succinct rumination on the disappearance of a tradition Courchene represents so well, and on what he might be able to do to keep it alive a bit longer.

CANADIAN ECONOMICS AND THE PRUDENT HERETIC

There used to be a time when *Canadian economics* (quite different from "economics in Canada") represented a discourse of import in this country. As Harold Innis put it, "the task of working out a theory adapted to the situation" (1972, 149) was once regarded as a priority in Canada. Those were the days when most social scientists were Deweyian. For them, as for John Dewey, "in the beginning was the issue."

I had occasion to reminisce about this era at the celebration in 1992 of the 25th anniversary of the Canadian Economics Association. On that

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occasion, Robin Neill and I sketched the emergence of the Canadian economic discourse from the nineteenth century on, and its crystallization between 1920 and 1950 (Neill and Paquet 1993). This was a discourse one might best characterize as an *économie engagée* that focused on Canadian problems and institutions, with a clear applied bent and a whiff of skepticism about theory for the sake of theory.

But from the 1950s on, there was a significant paradigm shift: from an interest in *content* to more and more of an interest in *method*, and a redefinition of economics as discipline. This is best captured in a 1968 paper by Harry Johnson (published in the first issue of the *Canadian Journal of Economics*) in which he proposed a much narrower notion of economics. In his survey of meaningful contributions to economics in Canada, Johnson recognized as such only "a piece of work of general interest to the international profession of economists" (1968, 129). This was to become the beacon guiding the profession in Canada over the following decades.

From that time on, in Canada (but also elsewhere), the profession has busied itself producing a stream of *modls* (a word invented by Axel Leijonhufvud to refer to implements produced by the profession, most of which would seem to be of little or no practical use – AL dixit – but quite important in determining the status of the individual in the profession). These implements have attracted appreciation and celebration in academic circles, but also some sarcasm (Leijonhufvud 1973).

Over the last decades, there has been a modest rearguard surge of works refocusing on the socio-economy as instituted process in Canada, mainly as a result of the work of heretics who have bucked the trend. Many of them are still in departments of economics, but most of them have taken refuge in specialized research institutes and units, schools of business or public policy, government agencies, consulting firms, and so on – where it may be said that much of the knowledge of the workings of the Canadian socio-economy is now developed.

Tom Courchene has been one of those heretics who, after a glorious life among the Econ,[1] migrated to locales where political economy (akin to the old Canadian economics discourse) is still not only legitimate, but celebrated. It is improbable that Courchene would have had the impact he has had on the Canadian scene without this migration, and the support he received from extra-academic institutions.

Yet, and this is one of the particularities of Tom Courchene's professional career, he has remained *a very prudent heretic*, who has succeeded, through impressive navigational skill, in not ever being fully disowned by the canonical profession, while operating very clearly outside its mainstream. He owes this as much to his congeniality as to his deliberate

[1] His series of books on Canadian monetary policy in historical perspectives have become classics.

non-abrasive style. Even colleagues for whom "policy sucks" recognized his competence and scholarship, although they would not wish to join him in his adventurous voyages.

UNE CONNAISSANCE CHARNELLE OF THE CANADIAN SOCIO-ECONOMY

My mentor, Albert Faucher, used to say that to be a good social scientist one had to have *une connaissance charnelle* – a very intimate knowledge – of the socio-economy in which one lives. Otherwise, he would add, one would never be able to make sense of what is going on, to understand the complexity of interactions that underpin events, and to come up with meaningful diagnoses and practical repairs. Courchene has been particularly good at this sort of ethnographic work. He has immersed himself in different environments, and invested much time and energy in developing his diagnostic skills by giving due attention to the art of description and contextual appreciation.[2] Many others have tried to look carefully, and yet have not seen what was there. Courchene has had a knack for identifying and extracting meaningful patterns, where others saw only a bunch of dots.

Let me review three samples of Courchene's written work.

First, his interesting forays into the challenges facing Quebec and Ontario in the late 1980s provide much evidence of Courchene as *diagnostician*.

Other most enlightening vignettes of interest are those proposed by Courchene about how one might design the community of the Canadas, and how one might find a way to insert the governance of First Nations within the context of the Canadian political infrastructure as it stands. These vignettes illustrate Courchene's work as *social architect* – his trademark in many papers and books in the 1990s and early 2000s. These publications not only display some of his imaginative design work, but throw some light on Courchene's mode of reasoning.

Finally, of late, Courchene has tried his hand at broader vistas. In some recent reflective and speculative papers, Courchene explores *futuribles* – possible futures. These papers have revealed Courchene as an *organizer* in the sense that Socrates was an organizer – one whose job is "to raise questions that agitate, that break through the accepted pattern" (Alinsky 1972, 72).

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[2] The perils of crippling epistemologies grafted on poor descriptions have been rarely acknowledged but are quite important (Sen 1999).

Quebec and Ontario

The pair of studies I am particularly interested in here were written in 1986–88: the first one in French, and the second one in English (Courchene 1987, 1989; the latter has been reprinted in Courchene 1991a, 1-42). These papers explore the psyche of Quebec and Ontario, respectively. These are unique pieces, for I know of nothing else that quite succeeded in surveying this sort of territory at the time.

The piece on Quebec was written in the fall of 1986, when Courchene was visiting professor at L'Ecole nationale d'administration publique in Montreal. He seized the occasion of the publication of three Quebec government documents prepared by ministers in the Bourassa government – on privatization (Pierre Fortier), on the reform of government organizations (Paul Gobeil), and on deregulation (Reed Scowen) – and the disquiet that these publications generated at the time, to reflect on the dilemmas they appeared to reveal in the relationship between the citizen and the state in Quebec.

Courchene does more than simply summarize and evaluate the three reports. He uses them to gauge what he calls Quebec's drift toward a market nationalism stance. In these reports, Quebec appears to be envisaging a move toward a more subtle, collaborative, strategic state in lieu of the more intrusive, propulsive state that had been in good currency in Quebec since the early 1960s.

As these reports were not well received, Courchene speculates as to whether this unease is ascribable to their terse and technocratic tone (which failed to put their recommendations in context), or whether their suggestions were simply a wee bit too audacious and revolutionary to be palatable at the time. These documents underline a rebalancing of three fundamental social choices: between efficiency and security, decentralization and centralization, and the private and the public sector – a move on all three fronts from an emphasis on the latter to an emphasis on the former. Courchene conjectures that Quebec might become a sort of unlikely avant-garde on these fronts, and that many other segments of the country might soon be following that lead.

Premier Bourassa developed an acute case of cold feet in the face of the opposition to the reports, and so their thrust fizzled (Paquet 2008). However, Courchene was bang on in identifying the dilemmas that Quebec was grappling with and would continue to grapple with over the following decades.

Very soon afterward, Courchene used a cognate approach to frame his understanding of the concurrent Ontario experience. He marshalled very surprising opinion poll results about the attitudes of persons in Quebec and Ontario at the time. For instance, to the question "Should there be substantially less government intervention in the economy?" a surprising 73 percent of Quebecers indicated that they would so prefer, while only 53 percent of Ontarians concurred. As to the question "Should Canadian governments de-emphasize social programs in favour of policies which encourage economic growth and investment?," 68 percent of Quebecers stated that they would so prefer, while only 43 percent of Ontarians concurred.

The psychoanalysis of Ontario that Courchene then undertook was aimed at understanding why Ontarians would appear to hold these views: he asked, "What does Ontario want?" Daringly, after some reminders of the historical context, Courchene contrasted the Peterson social agenda to the Bourassa economic agenda in the second half of the 1980s. He ascribed the contrast in part to Ontario's advantageous fiscal position, to some existential soul-searching in Ontario and much negative reaction to Reaganism, and to some disquiet about the impending free trade agreement with the United States.

In both of these studies, Courchene is an *ethnographer plus*. He uses his economic outlook as an illuminating lamp, but casts a much wider political, sociological, cultural, and psychological perspective on these terrains. This is Courchene the diagnostician at work.

Community of the Canadas, First Nations province, and a state of minds

In the 1990s, Courchene is no longer only an ethnographer and diagnostician: he transforms audaciously into a social architect, and the canvas on which he works is ever expanding.

In the early 1990s, two short monographs published by the Institute of Intergovernmental Relations at Queen's University illustrate Courchene's work as designer rather nicely (Courchene 1991b; Courchene and Powell 1992). They both are efforts to reframe and to reengineer some aspects of Canadian federalism – a matter that would engage Courchene intensely over that period. The first scheme was presented to the Bélanger-Campeau Commission, and is a plan to reconstitute the Canadas into a European-style community; the second proposes to boldly use a provincial approach to integrate First Nations self-government into the traditional Canadian framework.

In both cases, Courchene presents a vision of new organizational forms that did not then exist but might be created. He sketches the broad outlines of these new entities.

This is not the usual testing-of-hypothesis mode, but a different mode of reasoning – neither deduction nor induction, but what some would call *transduction* and others, *abductive reasoning* – exploring and groping for systems that did not yet exist and that needed, in Courchene's opinion, to be designed (Martin 2009; Romme 2003). This is a form of reasoning that starts from a sense of a gap to be filled, sketches a provisional prototype, and builds on a process of ongoing feedback that allows for refinement as the exploration proceeds – *design as the outcome of an inquiring system.*

This sort of intellectual operation may not have been in good currency in positivist circles, but it was celebrated in other circles: Henri Lefebvre (1968) captures this approach very well when he writes that it "élabore et construit un objet théorique, un objet possible et cela à partir d'informations portant sur la réalité ainsi que d'une problématique posée par cette réalité. La transduction suppose un feedback incessant entre le cadre conceptuel utilisé et les observations empiriques.… Elle introduit la rigueur dans l'invention et la connaissance dans l'utopie" (121).

This approach has an experimental flavour, and is in the nature of serious play with a prototype designed to help in "l'exploration du possible humain avec l'aide de l'image et de l'imaginaire, accompagnée d'une incessante référence à la problématique donnée dans le réel. L'utopie expérimentale déborde l'usage habituel de l'hypothèse dans les sciences sociales" (Lefebvre 1961, 192; Schrage 2000).

Courchene becomes even more ambitious in his Mabel Timlin Lecture at the University of Saskatchewan in 1999. This project – based on the explicit recognition that capital and technology can be obtained on the global scene, and that the fundamental asset Canada can really build on in the new information economy is its human capital – has led Courchene to attempt a grandiose design of what Canada has to become in our information age – *a state of minds* (Courchene 2001). This baroque book tackles the most challenging task of defining how Canada must change, and what this change implies. This is a work of social architecture (Perlmutter 1965).

Courchene as social architect is not following in the footsteps of the austere Le Corbusier, but of the ebullient Frank Gehry. Reading Courchene's *A State of Minds* is not unlike exploring Gehry's Guggenheim Museum in Bilbao: there is a basic theme – human capital – but Courchene succeeds in bringing an extraordinary number of other dimensions and knowledge wedges to bear on his complex design for Canada. The multiple schemes he invokes give a Borgesian quality to the search for the underpinning or overriding organizing principle behind the plan: one that has been extracted only by very careful readers.

This might sound like an indictment – but only for those who are still absorbed by the antiquarian bow-and-arrow-marksmanship view of policy-making. Courchene has not operated in this mode for quite some time. For Courchene (as for Perlmutter), "the social architect does not build the institution; the institution is built by the clients" (Perlmutter 1965, 32). His book only intends to set out the construction site: his insights are invitations for stakeholders to join the construction process, not a set of blueprints imposed from above to be either executed by the state or followed religiously by journeymen. He is designing a collaborative, exploratory venture.

In the same way as Courchene's mode of reasoning is unusual, his design thinking is also unusual. Once a sense of direction has been injected, he lets go: for him, the innovators he welcomes should not feel the need for constant supervision (Brown 2009, 74). Policy and strategy are no longer an intervention by *Big G (Government)* – hierarchical, centralized, authoritarian, coercive, pretending to have all the information, the power and the resources necessary to steer the social system in desired directions, but the result of *small g (governance)* – pluralist, participative, experimentalist, developing an inquiring system capable of ensuring adequate wayfinding and eliciting resilience and innovation.

We are no longer in *the ethereal world of leadership* based on the assumption that someone has all the information, power, and resources to ensure effective coordination, but in *the practical world of stewardship*, where no one is fully in charge and power, resources, and information are widely distributed among many hands and heads, where experiments nudge the system by fostering social learning (Paquet 2009).

Auspices, *futuribles*, and the viewpoint from a crane

Over the last little while, Courchene has been even more daring. He has produced (among a large number of other works) some significantly broader and more encompassing pieces: for example, in 2011, a paper on nothing less than the rekindling of the American dream, and in 2012, a distillation of the milestones or turning points in Canada's recent policy history. These papers are in the nature of *map-making*. To develop the required vista, Tom Courchene uses the equivalent of a crane, lifting the observer so that, from an elevated perspective, he can better see the landscape, and maybe even a bit beyond the horizon (Normann 2001).

Courchene's ambition is not only to take stock but to *upframe* – to redefine and expand the boundaries of the system he is looking at in space and time – in order to better gauge the knowable unknown. From that vantage point, there is a simultaneous perception of emerging inconsistencies and the possibility of detecting what is actionable, what might be the joint enactment of a meaningful future.

While this work remains grounded in a good knowledge of the minutiae of policy processes, in an unusual familiarity with the multiple dimensions of Canadian socio-political-economy as instituted process, and in an informed view of the world context, these last pieces of writing also reveal somewhat the *market populist cosmology* on which Courchene builds his concerns, conjectures, and designs. Courchene stays clear of normative admonitions. But he does not shy away from showing his colours: a person who has a healthy respect both for the market and for the popular distrust of government and big business.

Courchene has no taste for self-analysis. He puts his views on the table so that all will know where he comes from, but he does not feel the need to defend them or to celebrate his cosmology and argue against alternative views even when they are questionable. Confrontation is not his style – at least in the recent past. He is satisfied to leave to others such debates about epistemology, methodology, and the like.

On matters bordering on political philosophy in particular, such avoidance of confrontation is not necessarily ascribable to a single cause: it may be conjectured at times that it is by *esprit de corps* (for he remains a member of the Queen's tribe) or as an echo effect of *bad memories* (of moments when he suffered brutal rebuffs for his radical statements about the effects of ill-inspired redistribution policies on regional disparities or about his argument in favour of a North American monetary union) or as a result of *sheer congenital kindness*. However, whatever the source of his reluctance to unleash his enormous power of critical thinking in arenas where questionable positions are defended, he may have to shoulder some responsibility for his having allowed these questionable positions to remain unchallenged.

For instance, Courchene is surprisingly uncritical in not exploring further the trade-off between pro-market populism and egalitarianism. In *Rekindling*, he would appear to put on par the faults of the dysfunctional American political system and the reluctance of Americans to fall into the doldrums of egalitarianism (which is quite different from the pursuit of equality of opportunity) in explaining his bleak prospect for the rekindling of the American dream.[3] In the same manner, in *Policy Signposts*, Courchene as market populist presents a balanced clinical outlook on all issues, except when it comes to immigration and multiculturalism: on these latter issues, his kindness about policies of the last decades is not only surprising but appears to be unduly indulgent.[4]

Both these pieces are reflective in content and tone, and may be regarded as a pair of *hand-over memoranda* – the label used for the notes

[3] For a more persuasive market populist view on the US predicament, see Zingales (2012); for a more robust exposé of the perils of allowing the idea of the pursuit of equality of outcomes to taint ever so slightly the legitimate pursuit of equality of opportunity, see Kekes (2003). On the first front, it is not so much sins of commission for which Courchene may be blamed (since he has been clear about his focus on equality of opportunities and not equality of outcomes in some of his writings) but sins of omission – his apparent reluctance to critically and starkly denounce positions that have generated much equivocation on those issues. In particular, Courchene uses the very word *egalitarian* in a way that is potentially misleading since it has acquired an ideological flavour and has underpinned the defence of unrestricted entitlements to become an idea in good currency.

[4] For a contrarian view, see Paquet (2012).

ambassadors hand to their successors upon leaving a post. They are also revealing in allowing us (however obliquely and hesitatingly) to peek at the market populist cosmology that has guided his work over the last decades.

THE NEW FRONTIER FOR A MARKET POPULIST

Are these papers (as some have said) the "culmination" of Courchene's decades of policy work? I do not think so. But these pieces could be a harbinger of his forays into a new territory.

Very few Canadian economists have taken any time to reflect on their craft. This has deprived *la relève*, the generations of newcomers to the profession, of much learning about what economics is all about – not as discipline, corporatism, cronyism, and ideology but as a burden of office, a *métier*. This is probably why the political economy tradition is in danger of drying up in Canada – it has not been acknowledged enough, celebrated enough, remembered adequately, or explained sufficiently to new generations.

The turn taken by economics over the last 40 years has all but obliterated much interest in economic history, the history of economic thought, and the meaning of the craft of economists as social critics, social architects, organizers, and public intellectuals.

As a result of the shift from political economy (and its focus on content) to economics as discipline and method, most of the recent cohorts of economists have come to display an "unsettling or rash lack of concern" – the definition of criminal negligence in the Criminal Code – for the critical appraisal of the mental prisons and toxic ideologies that have plagued their house.

Courchene's determination to be non-confrontational in the face of some of those mental prisons and ideologies may have been costly. It may explain in part why so many of his very interesting and promising ideas have not been picked up: his new, imaginative ways of doing things could not easily be grafted onto a basic structure crippled by the flawed principles and norms of the sort of economics in good currency – unless their foundations are challenged.

Courchene may be persuaded that the time is ripe for him to reflect on the alternative foundational principles and norms on which his rather unique and particularly successful corpus of works as a political economist has been built.

It may not be sufficient any longer to tackle some of the wicked problems of the day.

A philosophical challenge of the conventional wisdom underpinning the institutional order and the paradigm in good currency is needed. And only a Tom Courchene with his impeccable credentials as a diagnostician, social architect, organizer, and public intellectual could tackle this Himalayan task – a task that only a true *savanturier* would be tempted to accept.

CONCLUSION

What are some of the questions Tom Courchene might begin with?

- What might a market populist have to say about the ambient culture of entitlements, and radical egalitarianism?
- What would a market-based ethics look like?

Tackling these sorts of questions would not only be timely but would also allow Courchene to develop more fully and clearly the unstated cosmology that has guided much of his work over the last 25 years, and to clarify once and for all some of the equivocal statements that may have crept into his voluminous amount of writings as a result of unwarranted kindness.

Setting the record straight does not necessarily mean simplifying. In fact, most of the time, it means complicating issues that have been too readily simplified.

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B FEDERALISM AND NATIONAL POLICY

THE DUTCH DISEASE AND THE CANADIAN ECONOMY: CHALLENGES FOR POLICY-MAKERS

Robin Boadway, Serge Coulombe, and Jean-François Tremblay

INTRODUCTION AND OVERVIEW

The Dutch disease is a seemingly paradoxical phenomenon. The terminology and the discourse to which it has given rise leave the impression that the gift of resource wealth to a nation can be disadvantageous, and under some conditions (like the lack of institutions for good governance) can be a "curse." There is something counterintuitive about the idea that an increase in wealth can make one worse off. In this chapter, we explore the sense in which natural resource endowments or shocks can have adverse effects, apply this thinking to the Canadian context, and consider policy options that might mitigate any negative consequences. In so doing, it is important to bear in mind some key institutional features of the Canadian setting. Of particular relevance for us are the decentralized nature of the Canadian federation, the fact that natural resource shocks

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The themes touched on in this chapter reflect some of Tom Courchene's interests and contributions to Canadian policy debates. These include fiscal federalism (especially equalization), regional policy, monetary and exchange rate policy, and natural resources. He may well disagree with some of our policy suggestions, but perhaps he will welcome the spirit of the exercise.

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apply very unevenly and to some extent unpredictably across the regions of the country, the presumed ownership of natural resource wealth by the provinces, and the constraints imposed on policy by the division of fiscal authority between the federal government and the provinces.

In principle, a natural resource bounty, whether originating in new discoveries, increases in commodity prices, or innovations in extractive technology, can lead to a potential improvement in economic welfare if the development of the resource and the use of its rents are well managed. This improvement could even be transmitted to all segments of the society as well as to future generations. If a resource curse ensues, there must be something wanting in the policy response. There are several potential sources and types of curses, not all of which we focus on. It is worth briefly recounting them here, though we discuss some of them in detail in the following sections.

Note that while some of our discussion will be couched in the language of oil and gas, the potential for Dutch disease applies to all forms of natural resources, including renewable resources. A key distinguishing feature of natural resources is their potential to generate rents for the public sector. That distinguishes a resource boom from, say, a boom in manufacturing or services resulting from terms-of-trade or technology improvements.

First, the development and extraction of the resource may not be optimal. Government policies may adversely influence the pace of exploitation because of distorting tax, royalty, or regulatory policies, or because of political uncertainty if the government cannot commit to a set of policies. In theory, resource extraction should be guided by Hotelling's rule, which roughly speaking says that the rate of extraction should be such that the growth rate of the marginal net revenue from extracting should equal the rate of interest. Though this rule is difficult to apply in practice because of uncertainties in resource prices and technologies of extraction, there is a presumption that the private sector will exploit resources efficiently if policies are non-distorting, property rights are secure, and all externalities of resource production are internalized. In particular, efficient extraction requires that environmental costs be properly accounted for. We set aside the environmental dimension to resource exploitation in this chapter, not because it is unimportant but because it would take us too far afield. Even without environmental concerns, there are benefits and costs to resource production. As Beine, Bos, and Coulombe (2012) put it,

> Analyses of oil-sands extraction from Alberta often underline the opposition between economic benefits and environmental costs. Nevertheless, this view neglects that the economic effects display a bright and a dark side. While the rise in energy and commodity prices indeed brings obvious benefits for Canada as a whole, it has also raised many concerns for policy-makers and economists. (469)

Second, natural resource production necessarily has an effect on the rest of the economy, and this is the source of concerns about the Dutch disease. There is a large theoretical and empirical literature on the Dutch disease, which we summarize in the next sections. Much of it is purely positive and studies the effect of a natural resource shock on other sectors of the economy, especially the traded goods (manufacturing) and non-traded goods sectors. The common message of that literature is that a resource boom diverts economic activity and factors of production away from manufacturing, and has an ambiguous effect on non-traded goods and services production. The extent of the reallocation depends on many factors, such as the capital intensity of the various sectors, the mobility of labour, the ownership of natural resource firms, the extent of inter-industry linkages between resource and non-resource sectors, and so on.

This reallocation is not necessarily a bad thing. If markets are operating efficiently, the response to a resource shock will be efficient in the same way as the economy's response to any other terms-of-trade shock or, say, to free trade will be efficient. The concern about the Dutch disease might arise for two main reasons. One is that there are necessarily gainers and losers to a resource shock. Most important, workers will be displaced in declining sectors, and those attracted to resource and non-traded sectors by higher wages will be better off. Moreover, adjustment to the shock may be costly, and structural unemployment might apply for a period of time. These consequences might call for adjustment assistance policies, but the case for resisting natural resource exploitation on these grounds is not convincing.

The second concern is that the resource shock could exacerbate potential inefficiencies in the market. One such argument is that the manufacturing sector is subject to agglomeration economies because it is concentrated in core regions, whereas natural resource activity is in the hinterland or periphery (Krugman 1991). A reallocation of factors of production from manufacturing to resources entails forgoing some of these agglomeration economies. This argument is appealing at first sight, but it does require that the agglomeration economies are not being fully internalized. The presumption is that these economies are to some extent external to the firm so lead to market failure. One example is learning-by-doing, which improves the skills of workers and managers, and spreads among firms by worker mobility or knowledge transmission. As well, innovations by one firm may benefit other firms, and these are more readily transmitted to firms in the same industry than elsewhere. It is certainly conceivable that these agglomeration externalities exist and are quantitatively significant. Any reallocation of activity away from industries exhibiting inter-firm externalities that have not been internalized will lead to a welfare loss (assuming that such economies do not exist in the expanding sector). An appropriate policy response would be to correct the externalities by government policy, but this is not easily done because the government itself cannot observe the externalities. Nonetheless, the extent of these uncorrected externalities might be overestimated to the extent that government policies do support agglomeration. These include the provision of infrastructure and the education and training of the industrial workforce.

This concern over inter-firm externalities plays an especially important role in a dynamic context. An influential argument is that the rate of productivity growth in manufacturing is greater than that in natural resources, so that diverting activity from the former to the latter will reduce economic growth in the long run (Sachs and Warner 2001). For example, it is conceivable that the *level* of productivity is higher in resource production than in the manufacturing sector because the capital intensity is higher, but the *growth rate* of productivity is smaller. (It can even be negative if the most profitable resources are exploited first.) Shifting factors from the low-productivity (but fast-growing) manufacturing sector to the high-productivity (but slow-growing) resource sector is likely to increase productivity in the short and the medium run but can decrease it when the expansion of the resource sector is over or the resource is depleted. The response to this argument is similar to the above. If there are externalities from innovation activities in the manufacturing sector that are not internalized, the appropriate policy response is to encourage innovation, for example, by the tax treatment of R&D spending. The innovation might alternatively result from experience, investment, and creative destruction forces, which in turn are driven by the level of manufacturing activity. If policy-makers believe this to be the case, they should encourage manufacturing activity rather than discourage natural resource production.

A third major set of issues concerns the disposition of the rents from natural resources. There are several dimensions to this. One is the division of the rents between the private resource-producing firms and the public sector. In theory, the rents from resources are the returns over and above the full costs of resource production, including all phases of activity from exploration to extraction and processing. In principle, since resources are publicly owned, one could argue that all rents should accrue to the public sector. In practice, this is unlikely to be the case. For one thing, policies used to divert resources to the public sector, such as royalties and profit taxes, are typically distorting, so some of the rents are dissipated. Related to that, the government may not have the requisite information to be able to extract all rents from the private producers. And, because of policy uncertainty, producers may discount future returns at a rate that is higher than the market rate of return, so require a higher-than-normal profit rate to encourage production. There may also be political economy reasons for governments not fully extracting rents from producers, reasons that were in full display in the recent attempt by the Australian government to impose a 40 percent rent tax on mining. There, large mining firms were able to influence public opinion to such an extent that the prime minister was forced to resign, and the new government reduced the tax rate to 30 percent.

Another dimension related to the disposition of rents concerns how the government uses the rents that are collected. A common meaning of the term "resource curse" refers to the fact that some of the revenues from natural resources are wasted by governments and their bureaucrats when governance is weak. These revenues may be used to enrich politicians and officials, or they may be wasted on so-called white elephant projects of limited real value. In the context of resource-rich countries with low-quality political institutions, some of the rents may be dissipated through rent-seeking activities by groups that are hard to control (e.g., warlord-supported producers). These governance problems are regarded as the most serious concerns with resource shocks in some countries, but we choose not to pursue them for the Canadian case on the presumption that political institutions are of high quality.

Even if resource revenues are not wasted, they may still be used inefficiently or inequitably. Given that the rents will accrue for a finite period of time, a key question is how much should be saved for future generations. This decision obviously involves making intergenerational welfare comparisons. To the extent that one puts weight on future generations, one would want to spread the benefits over time. In the extreme, if one adopts a maximum intergenerational social welfare function, one would want to equalize consumption across generations as captured in the Hartwick rule or the permanent income hypothesis (Hartwick 1977; van der Ploeg 2011). However, matters are not so simple if we recognize that society's revealed preference for intergenerational equity is not to equalize per capita consumption over time. Indeed, per capita consumption is increasing over time, and we might take that into account in deciding how much to save for future generations. In any case, it is unlikely that on ethical grounds we would want to consume all resource rents as they accrue rather than saving a substantial proportion. Moreover, the amount we choose to save will affect the size of the Dutch disease effects on the current economy, as we discuss below.

A further dimension of resource shocks that will affect how both the private and the public sectors will respond is the volatility of resource prices and innovations. This complicates the Dutch disease problem by transmitting uncertainty to the manufacturing sector, compounding the uncertainty that it might already face because of exchange rate volatility originating abroad. As we show later, variations in the Canadian exchange rate tend to stabilize the resource sector and to destabilize the manufacturing sector. To a certain extent, one can rely on capital markets to insure against exchange rate volatility. There might be other proactive measures that governments can take, such as encouraging diversification of export markets through international trade agreements. The public sector also faces uncertainty of resource revenues against which it must self-insure. This constitutes a precautionary argument for saving resource revenues that reinforces the argument for saving for future generations. It should be noted that an alternative to saving in financial assets is to invest in domestic assets like infrastructure and human capital. The balance among these forms of asset accumulation depends on their relative rates of return.

An important final dimension of the response to resource shocks that is particularly relevant for the Canadian case is the regional dimension. Resource endowments are unevenly distributed across regions and prone to occur in less populated regions some distance from the manufacturing base. The implication is that reallocations of productive factors involve interregional migration; some regions are losers in that they face losses in employment and production. This adjustment does not imply inefficiency unless there are prevailing market failures, as discussed above. The adjustments induced by resource shocks are similar to those induced by externally sourced exchange rate shocks, which in the Canadian case especially means shocks originating in the United States.

A further consideration in the Canadian case is that the rents primarily accrue to the provincial governments. The federal government obtains a share of revenue from its general income and sales taxes, but resource-specific taxes and the majority of natural resource revenues are provincial. This has several potential implications that we explore later. The provinces may be reluctant to fully exploit resource taxation because they perceive that there is some competition for natural resource investments. They may be reluctant to save resource revenues when the alternative is to use them to enhance public services and reduce taxes – measures that will attract workers and capital into their province at the expense of other provinces. Such fiscally induced migration is inefficient. Moreover, those revenues that they do spend may go disproportionately into regional development infrastructure-type investments designed to diversify their provincial economies at the expense of other provinces.

These consequences of natural resource shocks and their estimated magnitude for Canada will be discussed in the following sections. In addition, we discuss the policy implications. We shall pay particular attention to the perceived inadequacies of existing policies involving resources. These include especially the favourable treatment given to natural resource industries in the business tax system, the adverse consequences for the Canadian federation from the horizontal imbalances created by the geographical dispersion of natural resources, the pressure that this puts on the equalization and fiscal arrangements systems, and the exacerbating effect of the fact that natural resource revenues are not being saved by the provinces.

Although natural resources are owned by the provinces, and they alone have dedicated resource tax regimes, the existence of provincial non-renewable resource wealth has consequences for the national economy that only the federal government is in a position to address. We therefore pay particular attention to potential federal policy responses. As it stands, the resource industries are favoured by the federal corporate tax through generous deductions for capital expenditures and deductibility of provincial royalties. More generally, there are sound arguments for changing the structure of the corporate tax into one that taxes corporate rents rather than acting as a withholding device for the personal tax. Not only would such a reform make the tax neutral, it would also remove the bias of the tax in favour of debt financing and all that this entails.

Such a reform would also go some way to addressing some of the fiscal federalism problems that result from regional resource development. It would provide the federal government with a source of revenues that could be used to meet its constitutional obligation to equalization, and reduce the unprecedented disparities between the resource-rich provinces and the others. Other reforms to the federal-provincial fiscal arrangements could complement these changes. For example, the GDP ceiling on equalization growth could be eliminated, and social transfers could be adjusted to account for provincial disparities. More generally, enhancing the proportion of the tax room occupied by the federal government, especially the income tax room, is critical for both ensuring a continuing ability to fund equalization and preserving vertical equity in the federation in the face of inequalities induced by resource production.

Finally, two other policy options that could potentially reduce the extent of Dutch disease will be discussed. One of these is the possibility of increased immigration of skilled workers into resource-rich regions. This could substitute for migration of workers from other regions, which would otherwise deplete their productive labour force. The other is to explore the possibility of a monetary union with the United States as a way of undoing exchange rate effects on manufacturing industries.

DUTCH DISEASE 101 AND 401

There is a large literature on the Dutch disease, and we cannot do full justice to it here.[1] Instead, we present a 101-level summary of the key arguments and a 401-level outline of the application to Canada, including the most recent empirical facts and findings.

The classical approach to the Dutch disease was formulated by Corden and Neary (1982), who used a static international trade model to study the effects of a resource shock on a small open economy consisting of a traded (manufacturing) sector and a non-traded sector. It is useful to begin with some simple assumptions to focus on the main general

[1] A comprehensive, recent treatment may be found in van der Ploeg (2011).

equilibrium effects of the shock. The consequences of relaxing these are considered later.

Suppose first that the resource firms are at least partly foreign owned,[2] and that all revenues obtained by the public sector from resources are put into a sovereign wealth fund (SWF) and invested in foreign assets. For the time being, suppose as a benchmark that only the federal government collects resource revenues through taxes and royalties. Later we consider the consequences of the fact that the provinces obtain most of the resource revenues. Only the real return from the SWF is turned over to the federal government for spending, so the real wealth of the SWF is kept intact. The economy is a small open one so it does not influence natural resource prices, and the natural resources are exported after some given amount of refinement and processing. Thus, the value of a natural resource reflects the costs of exploration, extraction, processing, and refining, as well as any rents accruing to the owners and revenues to the government. It should be noted that the more processing there is, the greater will be the effects of the resource boom outlined below, since more factors of production would have to be diverted to do the processing. (This is relevant for the oil-sands case since an option to exporting bitumen for processing elsewhere, such as the USA, is to process the bitumen before exporting. It is also relevant for resource taxation since producers might be able to avoid some royalties by exporting before processing.)

What are the effects of a resource boom on the national economy in this setting? The most significant immediate effect is on the traded goods sector, which is typically identified with manufacturing, but increasingly includes services. Corden and Neary (1982) identify two effects by which a resource boom generates a crowding-out of the traded goods sector, referred to as the *spending effect* and the *resource movement effect*.

The spending effect abstracts from the production of resources and focuses on the effect of the spending of the extra income that is generated by the booming resources. Conceptually, it is as if the resource boom took the form of an endowment of finished resources ready for sale on the world market. The export sale of resources leads to a nominal appreciation of the domestic currency by the trade balance channel. Domestically, the spending of the income from the sale of the resources generates an increased demand for both traded and non-traded goods, with the former partially offsetting the exchange rate effect of the resource exports. The prices of primary inputs go up and the prices of non-traded goods rise. At the same time, the prices of inputs used in traded goods production

[2] Evidence suggests that the majority of oil-sands producers are foreign owned. According to a report released in May 2012 by the environmental group ForestEthics based on financial data collected by Bloomberg, 71 percent of the ownership of Canada oil-sands firms is foreign owned (ForestEthics 2012).

rise except to the extent that inputs are traded goods. While the output of non-traded goods rises from this spending effect, the output of traded goods falls for two exchange rate–related reasons. First, the prices of traded goods in the international market are fixed (in US dollars). The nominal appreciation of the domestic currency coming from the export boom causes a decline in the competitiveness of the trade-exposed manufacturing sector. Second, because there is upward pressure on prices in the non-traded sector, the aggregate price level will tend to increase more domestically than abroad, so there will be a real exchange rate appreciation. The resulting appreciation of the real exchange from the domestic and the trade-balance channels results in a decline in the competitiveness of the trade-exposed manufacturing sector. The decline of the manufacturing sector will be mitigated to the extent that the resource sector purchases manufacturing inputs from the domestic economy.

The resource-movement effect results from the use of capital and labour in the booming sector. Labour and capital required for the production of natural resource products to sell on world markets are diverted from the non-trade sector and the trade-exposed manufacturing sector.[3] Taken together, the spending and resource-movement effects unambiguously cause output in the traded goods sector to decline. However, non-traded sector output could rise or fall depending on whether the spending effect outweighs the resource-movement effect.

Note that the real exchange rate appreciates and resources move out of traded goods and into resources despite the extent of foreign ownership of resource firms and the investment of government resource revenues into a SWF holding foreign assets. The full value of resources is exported, but part of that is diluted because the return to the foreign owners of the resources plus the government revenues in the SWF are held as foreign-denominated assets, reducing the demand for domestic currency. The exchange rate increase comes about from the part of the value of resource exports that comes from domestic value-added (factors of production attracted from other sectors).

To the extent that resource firms are domestically owned or the government spends current resource revenues, the spending effect of the resource boom will be larger. For example, if resource revenues are spent on non-traded goods and services, resources will be further diverted from the traded sector, which will magnify the Dutch disease effect.

This simple Dutch disease story will be revised if some of the key assumptions of the model are changed. The trade-balance channel is not the only channel by which the resource boom leads to a nominal exchange rate appreciation. The domestic exchange rate is also likely to be affected

[3] Intermediate goods are also diverted from non-resource to resource industries, but these can be reduced to labour and capital as well, and so we do not highlight them.

by movements in the capital account of the balance of payments, given that the resource sector is capital intensive and relies to a considerable extent on foreign direct investment (FDI) finance (Neary and Purvis 1982). (Recall that oil-sands firms are more than two-thirds foreign owned.) In the exploration and development phases of the resource boom, foreign capital flows into the resource sector and the domestic currency appreciates. The development phase might overlap the exploitation phase during which both the capital account (FDI) and the trade balance (export of resources) contribute to currency appreciation and crowd out the trade-exposed manufacturing sector. When the development phase is over, profits are repatriated abroad, and the effect of past capital movements on the exchange rate is reversed. In a stylized simple framework when the development phase precedes the beginning of the exploitation and export phase, the capital-movement channel has an effect mainly on the timing of the appreciation of the currency. Following that, during the exploitation phase, the repatriation of profits tempers the appreciation generated by the export channel. Of course, the real world is more complicated that this stylized framework, and the development phase certainly overlaps with the exploitation phase when a variety of development projects coexist.

While foreign ownership of resource firms and the creation of a SWF holding foreign assets can limit, but not eliminate, the spending effect, the resource-movement effect can be reduced by immigration flows. As emphasized by Beine, Coulombe, and Vermeulen (2012), this will be the case to the extent that immigration involves the movement of foreign workers into resource-sector employment. Immigration reduces the need for a reallocation of workers from the non-resource sectors of the economy and the accompanying rise in wage rates.

The classical Dutch disease story is a static one, but there is an important intertemporal dimension. The implications of a resource boom depend on how long it is likely to last and how frequently it occurs. It is useful to characterize three distinct types of resource booms that give rise to different forms of Dutch disease, all of which can have lasting effects. These can coexist to some extent.

The first of these we can call the *Ghost Town* version. This is the result of a temporary resource boom that generates a permanent crowding out of trade-exposed manufacturing industries, as synthesized in Krugman (1987). Production generates learning by doing, which is not transferable between resource and manufacturing sectors, as exemplified historically by nuclear engineers in Canada. When the resource boom is over, productivity in manufacturing is lower than it would have been without the boom because of forgone learning by doing. Arguably, the Canadian version of the Dutch disease falls into the ghost town version, at least for non-renewable resources. Renewable resources, such as the forests, hydroelectricity, and fisheries, potentially last indefinitely, although to the extent that they use fewer factors of production than non-renewable resources, their Dutch disease effects should be less pronounced.

In the case of the oil sands, there might be 300 years of reserves, but with the real prospect of economical substitutes, perhaps only 20 to 30 years of profitability remain in the foreseeable future. It would therefore be reasonable to characterize our potential Dutch disease problems as belonging to this ghost town category. Probably similar arguments apply for other resources, such as uranium and potash, though coal may be much longer lasting. The temporary nature of important resource endowments highlights the need to save resource revenues for future use, long after the resource runs out. Not only does this mitigate the Dutch disease effect, it also spreads the benefits to future generations. In the limit where future generations are afforded equal weight to current ones, this could call for a Norwegian-type SWF whereby all the resource revenues are saved, and the government spends only the real return (the Hartwick rule).

The second version of the Dutch disease can be called the *Resource Curse*. This is the case of a permanent, or very long lasting, resource boom that translates into slower productivity growth. The negative correlation between resource abundance and long-run growth was coined the resource curse by Sachs and Warner (2001). As they argue and as was discussed above, one reason why the rate of growth is hampered by resources is that productivity growth might be higher in the manufacturing sector than in resource production, and thus the long-run growth rate might be smaller in a resource-based economy. Another reason is related to the quality of institutions and rent-seeking. As emphasized by Mehlum, Moene, and Torvik (2006), countries such as Canada, Australia, and Norway are well endowed by natural resources and stand among the richest countries. In others, especially developing countries, resource abundance does not translate into high and growing output. Mehlum et al. argue that the key difference between the winners and losers among resource-abundant countries is the quality of institutions. The losers are characterized by poor institutions where wasteful rent-seeking activities compete with production activities. In countries with good institutions, rent-seeking and production are complementary. The quality of institutions is important for economic growth in all countries, but it might be more critical in countries where the rent from resource extractions is a large part of national income. In many countries, the rent is collected by a few well-connected people who have no incentive to invest in the education of the majority of the population and to create public goods. The implementation of rules of law and property rights for the purpose of improving the welfare of the overall society appears to be a more delicate issue in resource-abundant and rent-generating countries.

The third form of Dutch disease results from the volatility that is an intrinsic characteristic of natural resources. The prices of energy and non-energy commodities are highly variable and do not display a clear rising or falling historical trend. The price of oil is particularly unstable and appears to be mainly determined by geopolitical and economic events.[4] Moreover, many important oil-producing countries are either politically unstable or surrounded by politically unstable neighbours. Between 1945 and 1972, the price of oil in 2012 US dollars was relatively stable around US$20.[5] Between 1974 (OPEC and the Yom Kippur war) and 1980 (Iran hostage crisis and Iran-Iraq war), the price rose to US$105. Then, in the following two decades, the price of oil declined steadily to reach an historical low of US$16.80 in 1998. The trend was reverted thereafter and the price rose to US$125 in 2008 before falling rapidly and sharply with the financial crisis.

Such oil price fluctuations have affected the Canadian exchange rate and the competitiveness of the manufacturing core in international markets. During the 1990s, the weakness of the Canadian dollar artificially boosted the competitiveness of our trade-exposed manufacturing sector in central Canada. Canadian manufacturers were in effect protected and could thrive without investing in new capital or adopting new technologies during this period. Furthermore, the devalued currency increased the cost of purchasing machinery and equipment goods that are mainly imported. This was reversed after 2000 with the rapid rise of China and the increased demand for energy and non-energy commodities. As discussed further below, the substantial and rapid appreciation of the Canadian dollar eliminated about 350,000 workers in the Canadian manufacturing sector between 2002 and 2008 (Beine, Bos, and Coulombe 2012). Many Canadian firms did not have the time to invest, adopt new technologies, and become competitive, despite the fact that the appreciation brought with it a decreased cost of investment in imported machinery and equipment goods. These fluctuations in resource prices, which translate into exchange rate volatility, imply that Canadian trade-exposed manufacturing firms have to do business in a much more volatile and unpredictable business environment than their American, Japanese, and European competitors. Some argue that the manufacturing industries of the core would greatly benefit from belonging to a currency area that is not commodity and oil driven, such as that of the United States (Courchene and Harris 1999).

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[4] Discrete technological progress, such as that caused the recent boom in shale oil extraction, also affect the price of oil.

[5] All prices are taken from inflationdata.com and refer to the US domestic crude oil price in 2012 dollars.

EVIDENCE OF THE DUTCH DISEASE IN CANADA

There has been much public discussion and some empirical work on the symptoms of the Dutch disease in Canada. We cannot do justice to that literature in this chapter. We shall highlight some of the more recent findings, which give an indication of the orders of magnitude of effects of the recent resource boom.

A standard approach to estimating the existence and magnitude of the Dutch disease is to focus on the effect of the real exchange rate on manufacturing industries. In particular, a two-stage analysis is adopted whereby in the first stage the effect of a resource boom on the real exchange rate is identified, and in the second the effect of the real exchange rate on manufacturing activity is estimated. In interpreting those two effects, it is important to keep in mind that natural resources are not the sole driver of the Canadian real exchange rate.

A common approach to estimating the determinants of the real exchange rate is exemplified by the exchange rate equation used by researchers at the Bank of Canada.[6] They model the Canada-US bilateral exchange rate as a function of the prices of energy and non-energy commodities, and the Canada-US interest rate differential. The obvious shortcoming of this approach is that idiosyncratic shocks to the US dollar, which Beine, Bos, and Coulombe (2012) have coined as the US component of exchange rate determination, affect both the bilateral exchange rate and the prices of energy and non-energy commodities, which are measured in US dollars in international markets and in the Bank of Canada equation.

To be more precise, Beine, Bos, and Coulombe (2012) show that the Canada-US bilateral real exchange rate is driven by both a Canadian and a US component.[7] The Canadian component represents movements in the exchange rate caused by changes in Canadian exports in response to changing world prices of natural resources and other tradable goods. The US component reflects changes in the exchange rate originating in the United States either because of shocks to the US capital account or aggregate demand shocks in the United States that affect the demand for Canadian exports. The evolution of the Canadian component is determined by energy and non-energy prices, whereas the US component is not. It is determined by US events such as the capital inflows that came with the dot-com bubble during the period 1995–2000. The strengthening of the US dollar during this period was an important driver of the fall

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[6] The exchange rate equation at the Bank of Canada was suggested by Amano and van Norden (1993). For a recent update, see Maier and DePratto (2008).

[7] As showed in Beine, Bos, and Coulombe (2012), evolutions of the trade-weighted Canadian exchange rate are very comparable to the evolution of the bilateral exchange rate.

of commodities and energy prices and the devaluation of the Canadian dollar.

Beine, Bos, and Coulombe (2012) study the period of Canadian dollar appreciation, 2001–08. They show that it can be divided into two subperiods. Between 2001 and 2005, the appreciation of the Canadian dollar was mainly due to the depreciation of the US component that followed the collapse of the dot-com bubble. This US dollar depreciation also resulted in the increase in the price of commodities measured in US dollars. On the other hand, between 2005 and 2008, the appreciation of the Canadian dollar was mainly driven by the Canadian component, that is, expansion of the resource sector.

As Beine, Bos, and Coulombe (2012) argue, only the appreciation that originates with the Canadian component is potentially generating the Dutch disease, not the appreciation generated from depreciation of the US dollar. A depreciation of the US dollar also exerts a negative impact on the trade-exposed manufacturing sector, but the causality does not run from the resource boom to the crowding-out of the manufacturing base. The resulting increase in the prices of commodities does not generate an income effect in the domestic resource sector since it is offset by the appreciation of the Canadian dollar. Incomes measured in Canadian dollars generated by the resource sector remain the same. Resources are simply reallocated from the trade (manufacturing) to the non-trade (service) sector. Put another way, even without a significant resource sector in the Canadian economy, the trade-exposed Canadian manufacturing sector would be negatively affected by an idiosyncratic depreciation of the US dollar. Contrary to the United States, which might be viewed as a large and relatively closed economy, Canada is a small open economy and its trade, for geographical reasons, is highly dependent on the US economy.

Bearing in mind this distinction between the US and the Canadian components of exchange rate changes, we can now turn to the question of the extent to which the Canadian economy is affected by the Dutch disease, given the recent appreciation of the Canadian dollar. Two preconditions have to be met. First, the appreciation of the Canadian exchange rate has to be at least partly driven by commodity prices, and second, it has to have a negative impact on the manufacturing sector. Regarding the first question, Beine, Bos, and Coulombe (2012) estimated that during the resource boom of 2002–08, 42 percent of the appreciation of the Canadian-US exchange rate was related to the natural resource boom. The remaining 58 percent was driven by the US component of the bilateral exchange rate and thus unrelated to the change in the prices of commodities produced in Canada. So, the first condition is satisfied.

Regarding the second precondition, Beine, Bos, and Coulombe (2012) also find evidence that the appreciation due to commodity prices has a negative impact on many trade-exposed manufacturing industries. They estimate that out of 21 industries, 10 have experienced employment losses that have been generated by the commodity-driven component (Canadian) of the exchange rate. That accounts for 200,000 permanent job losses in the manufacturing sector between 2002 and 2008. Industries most affected by the Dutch disease are textile mills, machinery, and computer and electronics with long-run elasticities ranging between 2.7 and 4.5. Other industries affected include plastics and rubber, furniture, paper, printing, and transportation equipment. The degree to which an industry is affected by the Dutch disease appears unrelated to the degree of technology intensity.

Beine, Bos, and Coulombe (2012) further decomposed the total employment losses in the manufacturing sector between 2002 and 2008 in three components. The first one, the 200,000 job losses due to the Dutch disease mentioned above, accounts for 31 percent of the total employment losses in manufacturing during the period. The most important share of employment losses is related to the US component of the exchange rate appreciation. It accounts for 350,000 workers or 55 percent of total employment losses. Finally, the remaining 14 percent of losses in manufacturing employment (90,000 jobs) from 2002–08 are related to the long-run structural decline of the manufacturing sector in most developed countries in the last decades. This decline has been especially associated with the rise of the Chinese economy in the past 15 years.

These results might be compared with those estimated by Shakeri, Gray, and Leonard (2012). They performed an empirical analysis of 80 Canadian manufacturing industries over the period 1992–2007 using quarterly data. They also deployed a two-stage procedure. In the first stage, they estimated a relationship between energy prices and the Canada-US real exchange rate. In the second step, they estimated the effect of energy-price-induced exchange rate movements on Canadian manufacturing industries. They found that over the resource boom period of 2004–07, 11 out of 18 industry groups experienced a decline in output due to exchange rate appreciation that was induced by rising energy prices. However, they did not distinguish between the US and the Canadian component, which as we have mentioned is the Dutch disease component.

Beine, Bos, and Coulombe (2012) further estimated that in the period 2002–08, improvements in the terms of trade accounted for around 30 percent of the aggregate increase in living standards in Canada.[8] In other words, a substantial proportion of total income improvement in the first decade of the twenty-first century is simply good luck rather than improvements in productivity. One could argue that these windfall gains

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[8] This estimation is based on differences between the cumulative growth rate of national income and gross domestic product between the first quarters of 2002 and 2008. Of course, most terms-of-trade gains are concentrated in Alberta, Saskatchewan, and Newfoundland. For more on terms of trade, refer to Coulombe (2011).

should be saved and spread over future generations, in the extreme case in accordance with the Hartwick (1977) rule.[9]

Beine, Bos, and Coulombe (2012) emphasize that in addition to the Canadian exchange rate effect representing the Dutch disease, the effect of the depreciation of the US component also has a significant and negative impact on trade-exposed manufacturing employment. Canada is a very special case because our export base, particularly our manufacturing base, is not diversified. This is why the US component (which is not related to energy) is so important. Of course, geography is very important as demonstrated by the robustness of the gravity model: our industrial core is so close to the United States. Nonetheless, diversification of our export base could mitigate the US component, and should be an important element of our trade policy. Diversification could be pursued through new free trade agreements, such as the one being negotiated with the European Union.

A natural response to the US component might be to form a currency union with the United States to alleviate fluctuations in the exchange rate (Courchene and Harris 1999). However, the Euro crisis demonstrates that a country that gives the right to print money to an external central bank loses the margin to manoeuvre in a period of banking, financial, and public debt crisis. Who will be the lender of last resorts in case of banking crisis? Even in Europe, countries that kept the right to print money (UK, Denmark) are paying substantially lower interest rates than in Euro countries. So dollarizing is not an attractive proposition. A fixed exchange rate might be more desirable, but is it possible? The other important developed countries with a resource sector (Australia and Norway) have a floating exchange rate. Canada was not able to maintain a fixed exchange rate in the 1950s and 1960s because of big changes to commodity prices.

By the same token, the official Parti Québécois line for the currency option of an independent Quebec is still to keep the Canadian dollar. This is reasonable. One of the possible gains for Quebec to become independent is to have a currency that is less dependent on commodities, thereby avoiding the Dutch disease. The cost, however, is to lose the advantages of fiscal federalism. The lack of the stabilizing effect of fiscal federalism in Europe at the moment explains a good part of the reasons why

[9] One is reminded of a micro version of this principle, which we might call the Lavigueur family rule. In the mid-1980s, members of a poor family, the Lavigueurs, in Quebec won an $8 million lottery jackpot. Overnight they were millionaires. They stopped working and started spending their money, sometimes fighting each other in court. After a few years, the jackpot was gone, the jobs were gone, and most Lavigueur family members were poorer than before winning the jackpot.

Spain is doing badly compared with Florida, both of which are cases of real estate bubbles. Were Quebec to leave fiscal federalism and keep the Canadian dollar, it would pay the costs but harvest no gains in terms of stabilization from the breakup.

Two last pieces of evidence are worth mentioning. The first is the analysis of Raveh (2012) who investigates, both theoretically and empirically, the potential of a Dutch disease at the provincial or state level within federations. He analyzes income and sectoral data for 231 regions of ten federations (Australia, Belgium, Brazil, Canada, Germany, India, Malaysia, Russia, United Arab Emirates, and United States). The periods of analysis depend on the availability of regional data and vary from 1977 to 2008 for the United States to 2004–08 for Russia. The analysis first shows that there is a negative correlation at the cross-country level between the initial endowment of natural resources and subsequent growth, a fact consistent with the findings of Sachs and Warner (2001). The correlation is reversed and significant when pooling regions within countries. However, the correlation is not significant at the 5 percent level when the sample excludes the booming period of 2006–08.

Raveh's explanation for this interesting stylized fact is based on an "Alberta Effect." This effect, analyzed theoretically and empirically (at the US states level), derives from the possibility for provincial or state governments within a federation to use the resource rent to attract factors (capital and labour) from other provinces or states within the federation. Well-endowed states or provinces can offer better public goods at lower tax rates. Within this framework, the relatively high mobility of factors within a federation implies that the Dutch disease is reversed in resource-rich regions but is transmitted to resource-poor regions.

As mentioned earlier, the international mobility of labour is a factor that could mitigate the resource movement effect, as well as the type of fiscally induced migration found by Raveh (2012). Beine, Coulombe, and Vermeulen's (2012) empirical analysis illustrates the mitigation effect of various migration channels on the provincial Dutch disease in Canada. Their findings suggest that migration flows associated with temporary foreign workers can mitigate the effect of the Dutch disease at the provincial level. Conversely, flows coming from the permanent international immigrant program (for skilled workers) are ineffective in mitigating the Dutch disease. Contrary to permanent immigrants, who are selected through a point system, immigrants coming to Canada through the temporary worker program respond to labour market shortages (resource movement effect). The authors also found that interprovincial migration is effective in mitigating the Dutch disease in booming provinces, but it translates into a spreading of the Dutch disease to non-booming provinces. These differences raise the issue of the regional consequences of the Dutch disease to which we now turn.

THE REGIONAL/FEDERAL ELEMENT

The geographical diversity and federal governance structure adds some important considerations to the analysis of resource shocks in Canada and their implications for the Dutch disease. From a stylized point of view, the Canadian case can be viewed as an example of the core-periphery model as described in Krugman (1991),[10] which emphasizes the fact that natural resources tend to be located in the periphery of less populated regions/provinces, while the core contains manufacturing and service industries in highly populated, more urbanized regions where agglomeration economies apply. In this setting, the Dutch disease is a mechanism whereby booms and busts in the periphery are transmitted to the core partly due to exchange rate movements, at least those exchange rate movements that are induced by the resource boom.

This reallocation of activity from the core to the periphery presumably feeds into the productivity growth differences and employment adjustments that are often identified with the Dutch disease. The core of the economy offers more opportunity for endogenous growth than the periphery because of the thickness of skilled labour markets and entrepreneurial activities, as well as economies of scale (Lucas 1988; Romer 1986). As well, the core can take advantage of superior productivity growth rates that are especially identified with manufacturing and other advanced industries. When activity is diverted from the core to the periphery, productivity increases might be forgone.

In evaluating the consequences of diverting activity from the core to the periphery, two issues are particularly relevant. The first is whether the productivity gains are the consequence of externalities that are external to firms. Any diversion of activity away from externality-generating activities constitutes a welfare loss. The presumption is that at least some of the benefits of agglomeration are external-to-the-firm externalities that are difficult for firms to appropriate and hard for the government to observe and therefore correct.

The second is whether productivity losses are temporary, and so can be recouped after the resource boom subsides, or permanent. On theoretical grounds, the degree to which productivity losses are temporary or permanent depends on the sources of productivity gains and the underlying

[10] Krugman used Canada as an example of the core periphery model in his classic 1991 book. Of course, Alberta is well urbanized with its two big metropolitan areas. However, the density of urbanization and economic activities in Canada remains concentrated in the Quebec City – Windsor corridor, which contains more than 50 percent of the Canadian population and three out of four largest metropolitan areas.

endogenous growth framework. When productivity improvements are based on cumulative experience due to learning by doing, productivity losses are irreversible when economic activity is diverted from high learning-by-doing generating activities to lower-learning activities. Productivity losses might be only temporary, however, if productivity gains come from economies of scale. When the resource is exhausted and economic activities return to the core, productivity could catch up to the level it would have reached without the resource boom if there is some sort of decreasing returns to capital accumulation. In this case, productivity gains are larger in the catch-up process. Finally, if returns to capital accumulation are constant, as in the so-called *AK*-type endogenous growth model (Barro and Sala-i-Martin 1995), the growth rate of productivity will come back to its initial level (before the resource boom) but the level of productivity will remain permanently lower.

As mentioned above with the analysis of Beine, Bos, and Coulombe (2012), Canadian exchange rate movements are mainly induced by the Canadian component (resources and energy) and the US component (idiosyncratic shocks to the US dollar). In responding to shocks to the Canadian component, and to some extent to shocks to the US component, the Canadian exchange rate operates in such a way that it stabilizes the economy of the periphery and destabilizes the economy of the core.

Major booms and busts in the resources sector generate an increase in the price of commodities and a long swing of the Canadian exchange rate (the Canadian component). The effect of the exchange rate movements in stabilizing the periphery or destabilizing the core is best exemplified with the case of idiosyncratic swings in the price of oil (assuming that the US component remains unchanged). When the price of oil in USD goes up, incomes in USD from oil production per barrel in Canada go up. However, the increase in income per barrel in CAD is not as important as in USD since the exchange rate is also appreciating (due to the Canadian component). When the price of oil in USD goes down, the reverse occurs. Canadian producers receive less USD per barrel, but the drop in income per barrel in CAD is less important with the depreciation of the CAD. The Canadian periphery is partly immune from the sudden swing in the prices of commodities in international markets due to the stabilizing effect of the CAD.

A shock to the US component can also induce exchange rate responses that will stabilize the economy of the Canadian periphery while destabilizing the economy of the core. For example, the expansion of the dot-com bubble in the second part of the 1990s was characterized by large capital inflows in the United States. The US component appreciated, the price of energy and non-energy commodities went down in USD, and the income of commodity producers measured in USD went down. Fortunately, the devaluation of the CAD contributed to stabilize the income in the periphery measured in CAD. At the same time, in the economy of the core, the depreciation of the CAD was pouring oil on the fire, and the trade-exposed manufacturing industries were artificially boosted. Of course, the reverse occurred after 2001. It is important to note that shocks to the US component are not always destabilizing to the Canadian core. For example, after the bankruptcy of Lehman Brothers in September 2008, financial capital flowed to the US economy translating into an appreciation of the US component. The resulting depreciation of the CAD helped stabilize the Canadian manufacturing sector at the start of Great Recession.

Because of these mechanisms, Beine and Coulombe (2003) argued that the core would benefit from belonging to a more diversified currency like the USD. Experience of the euro, however, shows the danger of a currency union without political union. The costs of giving up the right to print money (lender of last resorts) and of rapidly adjusting the real exchange rate have been highly underestimated.

The implications of the core-periphery model for the Dutch disease take on greater importance in a federalism context. The key relevant feature of the Canadian federation, which distinguishes it from many others, is the ownership of natural resources by the provinces and the implied right of the provinces to impose resource-specific taxes. This right was made explicit in the 1982 amendment to the Constitution Act, which added section 92A pertaining to non-renewable natural resources, forestry resources, and electrical energy. This section gave the provinces exclusive rights to legislate in relation to exploration, development, conservation, and management of these natural resources and in relation to exports from a province to other parts of Canada provided there is no discrimination in prices or quantities supplied. More important, provinces can raise money by any form of taxation in respect of these resources, provided the taxation does not discriminate between production that is exported to the rest of Canada and production that is not. Note that this power to legislate taxes on natural resources is not an exclusive power; that is, it does not explicitly preclude the federal government from taxing resource activities under its own taxing power. Of course, having the legal power and choosing to exercise it are two different things, especially given the provincial prerogative to tax resources.

In practice, the provinces alone deploy resource-specific taxes and levies. These include mining taxes, typically based on some measure of profits; royalties on oil and gas, which are related to production; sale of leases for the right to explore, develop, and extract resources; taxes on timber production; and various forms of revenue from electricity, including profits from Crown corporations. The federal government also obtains tax revenues from natural resources, including from income taxes, sales taxes, and excises. However, the provinces obtain a much higher share of revenues overall from natural resources than does the federal government.[11] In the case of income taxes, the same general rules apply to resource and non-resource industries, although there are some resource-specific provisions that lead to relatively favourable treatment. For instance, the investment cost for most types of assets in the resource sector is eligible for an annual depreciation allowance of 25 percent of the unclaimed balance, while certain types of investment are eligible for an accelerated capital cost allowance that can provide an immediate deduction of up to 100 percent of the investment cost. There are also generous deductions and credits for exploration and development investment in the pre-production period. For example, it is possible to deduct 100 percent of exploration expenses in the year when the expense is incurred. In the mining sector, there is a rapid write-off of development expenses (up to 30 percent of unclaimed balance each year) and a 10 percent investment tax credit for expenditures in the pre-production period. In addition to these provisions, provincial royalties and mining taxes are fully deductible from federal taxable income. There are also advantages at the financing stage provided by the flow-through-share mechanism by which firms in the mining and oil and gas sectors can pass deductions for investment in the pre-production stage to their owners. Exploration and development expenditures that are financed under this mechanism are considered to have been incurred by the investors who buy the flow-through shares and are deductible from the investors' taxable income in the current year. In effect, this provides for an immediate 100 percent write-off of these expenditures, as well as a deduction from income which may be taxed at a higher rate than the income tax rate faced by the corporation that issues the shares.

There are several possible implications of the provinces having primary access to resource revenues. The first and most obvious is that since natural resource revenues accrue very unequally among provinces, they lead to substantial horizontal imbalances in the federation. In 2011–12, provincial fiscal capacities before equalization ranged from 67 percent of the national average in Prince Edward Island to 166 percent in Alberta, with the fiscal capacities of Quebec and Ontario being equal to 83 percent and 93 percent, respectively, of the national average. The impact of the resource boom on fiscal capacities has been particularly striking for Newfoundland and Labrador, Saskatchewan, and Ontario. Between 2001–02 and 2011–12, Newfoundland and Labrador and Saskatchewan became have-provinces: Newfoundland and Labrador's fiscal capacity increased

[11] Calculations done by Finance Canada (2003) showed that the federal government collected approximately 23 percent of total federal and provincial revenues from the oil and gas sector at the end of the 1990s. The federal share in the mining sector was estimated at 24 percent. These calculations included revenues collected from federal and provincial income and capital taxes, as well as provincial royalties and mining taxes.

from 67 percent to 153 percent of the national average and Saskatchewan's from 93 percent to 133 percent. On the other hand, Ontario's fiscal capacity decreased from 104 percent to 93 percent of the national average (based on data provided by Finance Canada). To the extent that these imbalances are not equalized, they lead to fiscal inefficiency if households and businesses are lured to resource-rich provinces by lower taxes and/or better public services (so-called net fiscal benefits).[12] This fiscal inefficiency is over and above the inefficiency that might result from the forgone agglomeration economies due to the resource movement. Differences in provincial capacity also give rise to fiscal inequity: comparable persons get more net fiscal benefits in resource-rich provinces than elsewhere.

It is precisely these fiscal inefficiencies and inequities that the equalization system is meant to address. Literally interpreted, section 36(2) of the Constitution Act, 1982 would oblige the federal government to make equalization payments to undo differences in fiscal capacity from provincial resource revenues. There is a lengthy and contentious literature on the issue of equalization of resource revenues, and we only highlight two key issues here. One is that there is an apparent conflict between the commitment imposed on the federal government in section 36(2) and the presumed provincial ownership of resources. Those who give primacy to provincial property rights argue that natural resource revenues should be treated as implicit income of provincial residents and at most should be "taxed" at the federal income tax rate (Boadway and Flatters 1982). The second issue is that attempting to equalize natural resource revenue will have adverse effects on provincial incentives to develop resources.

Different observers have come down differently on how to resolve these issues. The Royal Commission on Renewing and Strengthening Our Place in Canada (2003) set up in Newfoundland and Labrador called for a renegotiation of the Atlantic Accord to ensure that the provincial government would be the main beneficiary of offshore oil revenues, at least until the province's fiscal capacity reached the national average. The commission estimated at the time that the provincial government was effectively capturing only 20 to 25 percent of offshore oil revenues. Partly in response to the commission's recommendations, the federal government signed the 2005 Offshore Arrangement with Newfoundland and Labrador and Nova Scotia which guaranteed that, for a limited period of time, these provinces would face no reduction in their equalization entitlements as a result of including offshore oil revenues in fiscal capacity calculations.

[12] Day and Winer (2012) found evidence that interprovincial variations in income tax rates and in benefits from expenditure programs, social assistance payments in particular, have some impact on interprovincial migration flows. Quantitatively, however, the effects of variations in provincial policies on migration decisions are much smaller than the effects of earnings differentials and moving costs.

The Council of the Federation Advisory Panel on Fiscal Imbalance (2006) recommended using a ten-province standard and including 100 percent of resource revenues in the calculation of fiscal capacities despite concerns regarding the impact of the full inclusion of resource revenues on the volatility of equalization payments and on the affordability of the program for the federal government. Because of these concerns, the panel also recommended using three-year moving averages of fiscal capacities and lagging two years, as well as scaling back the standard to address the affordability issue. The Expert Panel on Equalization and Territorial Formula Financing (2006) recommended including only 50 percent of provinces' actual resource revenues in the calculation of fiscal capacities and determining equalization entitlements based on a ten-province standard. This approach ensures that provinces retain some net fiscal benefits from the extraction of their resources.

Over the years, resources have received various equalization treatments. Typically, natural resource revenues have been significantly equalized, but with provisions that imply less than full equalization. Sometimes less than 100 percent of resource revenues have been equalized, and sometimes the standard to which recipient provinces are equalized has been based on five provinces rather than all ten. Equalization has always been based on a gross rather than a net mechanism, implying that provinces with above average fiscal capacity have not been equalized down (except implicitly through the system of social transfers). Special provisions have been in place for natural resources whose ownership is highly concentrated in one province. There have been limits placed on the growth of equalization based on GDP growth. And special provisions have protected offshore oil and gas revenues accruing to Newfoundland and Nova Scotia from equalization, as mentioned above. Nonetheless, equalization of natural resources has typically recognized the principle that they should be substantially equalized, albeit with some special provisions reflecting incentive effects and other things.

The current system of equalization mimics the main proposals of the Expert Panel. A ten-province standard is used with 50 percent of resource revenues being included in the base, and a growth limit is imposed based on affordability arguments. Given the very large horizontal disparities currently existing between resource-rich provinces and the others, there remain significant disparities after equalization. In 2011–12, equalization brought the average fiscal capacities of recipient provinces up to approximately 95 percent of the national average, while the fiscal capacities of Saskatchewan, Newfoundland, and Alberta were equal to, respectively, 133 percent, 153 percent, and 166 percent of the national average (based on data from Finance Canada).

The full extent of equalization also depends on the system of social transfers, and equivalently the extent to which revenue raising is decentralized. A system in which the federal government raises more revenues than it needs for its own programs, including equalization, and transfers the rest to the provinces in equal per capita form is highly equalizing. Conversely, a more decentralized revenue-raising system increases horizontal disparities and puts more stress on the equalization system. However, to the extent that natural resource revenues belong to the provinces, an equal per capita transfer scheme financed by federal revenues cannot mitigate fiscal disparities resulting from uneven provincial resource endowments. That could only be done either by the federal government collecting more revenues from resources or by social transfers being conditioned on revenue needs.

Let us now turn to how the provinces choose to use their resource ownership. First, there is the question of to what extent provinces capture a reasonable share of the rents for the public sector. The Alberta Royalty Review Panel (2007) argued that Alberta did not get a "fair share" of revenues from oil and gas. It estimated that the total public sector share of rents was 44 percent for conventional oil, 47 percent for oil sands, and 58 percent for natural gas, with the remaining share being captured by producers. The total public sector share includes government revenues generated from royalties and taxes, and for all levels of governments (so it includes federal corporate tax revenues levied in these sectors). The panel recommended that the public sector shares be increased in these three sectors, although to a much larger extent in the oil-sands sector (from 47 to 64 percent, compared with an increase from 44 to 49 percent for conventional oil and from 58 to 63 percent for natural gas).

The obvious question is why the public shares of resource rents should be so low given that the resources are publicly owned, especially since some revenues come from the sale of leases, which in ideal circumstances should yield a high proportion of expected rents. One possibility is that Alberta is a relatively small open economy and feels the brunt of fiscal competition as a constraint on setting royalties. Indeed, the Alberta Royalty Review Panel itself voiced the need to maintain international competitiveness so as to continue attracting sufficient investment as a consideration. However, if resource taxes really were taxes on rents, the forces of tax competition would be much diminished in a world where returns to capital are determined on world markets: natural resources are after all immobile. That resource taxes are not on rents might account for some of the competitiveness pressure that the government perceives. There might also be significant political uncertainty arising from the inability of the provincial government to commit to royalty rates in advance. To the extent that the government increases royalty rates when resource prices rise, which seems to be the case, this behaviour reflects an absence of commitment by the government and leads to resource firms facing political uncertainty for which they must be compensated. This political uncertainty may also account for the fact that the sale of leases does not capture all the rents. Whether federal access to resource taxation would lead to a higher proportion of the rents being collected is an open question, but in principle the federal government should face less competitive pressure than a province. Of course, the failure of provinces to collect a fair share of resource rents does not aggravate the Dutch disease. On the contrary, to the extent that resource firms are foreign owned, the profits will be expatriated and exchange rate–induced reallocations of factors diminished.

Even if a fair share of rents is not collected for the province, the amount of revenues is nonetheless substantial, and what the provinces do with them can influence the extent of the Dutch disease. For whatever reason, the provinces seem unable to save a significant proportion of resource revenues for future generations.[13] The Alberta government has a Heritage Fund in place, but it accounts for a very limited proportion of cumulated oil and gas revenues. As of 2012, the value of the fund's assets was approximately $16 billion. This corresponds to only about 1.4 times the non-renewable resource revenues of the Alberta government for the fiscal year 2011–12 alone, which were approximately equal to $11.6 billion.[14] In comparison, the Norwegian sovereign wealth fund was valued in 2011 at $660 billion.[15] No doubt some of the resource revenues in Alberta have been used for capital spending, including human capital investment. But a substantial proportion has been used to reduce taxes and increase current spending. The additional spending generated by both provincial residents and governments adds to the Dutch disease via the Corden-Neary spending effect, as well as contributing to fiscal inefficiency and inequity in the federal system as mentioned above.

Another reason why provinces have not been able to save resource revenues could be the temptation to use them for provincial regional development, or what has been called province-building, at the expense of other provinces. To the extent that the provinces choose their policies in the interest of their own citizens, incentives exist to develop the province via diversification strategies and infrastructure investments of various sorts. Such incentives may be one of the major Dutch disease–augmenting effects of decentralization. The province-building that provincial ownership of resource rents allows, whether by relatively low tax rates, relatively high levels of public services, or infrastructure building, attracts factors of production away from other provinces, including those that are more suitable for exploiting agglomeration economies. This induced movement

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[13] Bruce (1995) has argued that the interprovincial mobility of labour gives provinces an incentive to increase debt. The average voter can escape the consequences of the debt by moving away when it comes time to repay. Perhaps something similar induces the average voter to want to spend resource rents now, given that their descendants may well not be living in the same province.

[14] Alberta Department of Energy, http://www.energy.alberta.ca/.

[15] Sovereign Wealth Funds Institute, http://www.swfinstitute.org/.

of activity from the core to the periphery, to use Krugman's terminology once again, compounds the inefficiencies of fiscally induced migration.

The point can be made rather forcefully by contrasting the effects of decentralized resource rent collection with how the revenues would be used by a benevolent national government. It is not likely that such a government would use natural resource revenues as a vehicle for diversifying the region in which the resources happen to be found. There is no particular reason to seek to develop proactively regions of the country where large resource deposits are located. Of course, a benevolent national government collecting resource rents is not necessarily the alternative to the rents being collected by provincial governments. But it is nonetheless a useful normative benchmark.

POLICY OPTIONS

As we stressed in the Introduction, in principle a windfall resource boom could benefit all Canadians with the right policies in place. There are three main reasons why this might not occur in the absence of policy measures. One is that the response to the resource boom might entail inefficiencies either by exacerbating existing distortions or by creating new distortions in the resource sector. Thus, if there are unexploited agglomeration economies or opportunities for productivity growth that are not captured by firms affected by the resource boom, or if there are externalities emitted in the resource industries, corrective action is called for. Second, the resource boom inevitably makes some groups better off and others worse off, and the two groups might be especially concentrated in resource-rich and resource-poor regions. Third, the ready availability of potential resource revenues might induce governance issues, such as rent-seeking or non-productive use of the resources, which can adversely affect the performance of both the government and the economy. As mentioned, we set aside the third problem on the presumption that good governance is not an issue in Canada. In dealing with the first two issues – inefficiencies and inequities resulting from the resource boom – the response is further complicated in Canada because of the provincial role in developing and taxing natural resources in their jurisdictions.

Resource-rich provincial governments could enact policies that would exploit the benefits of natural resources and mitigate adverse consequences. They could adopt efficient resource taxation regimes that ensure that the bulk of the rents are collected without interfering with the incentive to explore, develop, extract, and close down resource properties. There are known regimes for achieving this, such as the Resource Rent Tax (RRT) touted by the Henry Review (Australian Treasury 2010), and the Allowance for Corporate Equity (ACE) tax set out, for example, by Auerbach, Devereux, and Simpson (2010) and recommended by the

Mirrlees Review (Mirrlees et al. 2011).[16] These regimes, when combined with competitive auctioning of leases, can be effective ways of collecting resource rents for the public sector.

There are some pitfalls that must be recognized in implementing such regimes. One is that governments should commit to a tax regime and maintain it regardless of future fluctuations in prices. The temptation of governments to raise tax rates when prices rise, and vice versa, leads to political risk that compromises the efficiency of taxation. The second is that losses must be treated symmetrically with gains. This is particularly important in natural resources given the uncertainty associated with exploration as well as with resource prices.

Unfortunately, existing provincial resource regimes are not fully efficient revenue raisers. In oil and gas, royalties are relied on rather than rent-type taxes. Moreover, royalty rates are too low to generate a fair share of the rent for the government, as discussed in the case of Alberta in the previous section. And, royalty rates tend to vary or be changed with resource prices, leading to political uncertainty.

Next, those revenues that are collected should be used for good purposes. First and foremost, they should be used in ways that adequately benefit future generations. One way to do this is to create a SWF and to draw the wealth down so that the moral rights of future generations are taken into account, recognizing that they may be expected to have higher standards of living. To mitigate the Dutch disease effects on other regions and industries, the SWF could be invested in foreign assets, as in the Norwegian case. At the same time, a case can be made for investing some of the rents in capital projects that generate implicit rates of return, such as infrastructure and human capital.

The problem, as mentioned above, is that provincial governments face incentives that could lead to decisions that enhance the Dutch disease. They apparently feel tax competition pressures that discourage them from capturing a fair share of resource rents. They seem to be reluctant to save resource revenues. Instead they spend them in part on provincial regional development investments that draw economic activity from other regions. Moreover, the relatively low tax rates and possibly high public service levels that resource revenues allow result in inefficient fiscally induced migration of labour and businesses. Note that the failure of provincial governments to capture a fair share of the rents, combined with the relatively high proportion of foreign ownership in the resource sector, will actually tend to mitigate the Dutch disease since the expatriation of profits will dampen the exchange rate effects that are leading to

[16] A detailed survey of natural resource tax regimes and their properties may be found in Boadway and Keen (2010).

the reallocation of production factors away from the traded-goods sector. However, the exchange rate effects can also be mitigated, while accumulating assets for future generations, by simply taxing a greater share of the rents and investing the revenues into a SWF holding foreign assets.

What policies might the federal government follow in light of the response of the provinces and the broader national interest?[17] There are obviously important political and constitutional issues that constrain what the federal government can practically or legally do to address the efficiency issues arising from Dutch disease effects as well as equity concerns. The options we suggest exploring recognize that the provinces have jurisdiction over resource development, and have the right to levy resource-specific taxes. At the same time, the federal government has legitimate efficiency and equity obligations, some of them explicitly set out in the two parts of section 36 of the Constitution Act, 1982, and others recognized to fall within the scope of national interest. Moreover, although the federal government may choose not to impose resource-specific taxes (apart from excise taxes on petroleum products), it has always collected a share of natural resource revenues through its general power of taxation. We regard it as an open question as to the share of resource revenues that go to the federal government. We also take it as given that the federal government cannot directly control the pace of resource development. It can, however, address the consequences.

The two most pressing consequences of the resource boom are the reallocation of activity from the non-resource tradable goods sector to the resource sector and the interprovincial fiscal imbalance created by the uneven distribution of resource revenues among provinces. The former effect, which potentially affects the growth rate of the economy, is aggravated by the fact that resource revenues are spent rather than saved. Consider first the federal role in addressing the horizontal fiscal imbalance.

The federal government has a long-standing and widely accepted commitment to address horizontal fiscal imbalances through its transfer system, including both equalization and social transfers. This commitment follows the practice in Canada, but it also follows from the commitments expressed in both sections 36(1) and 36(2) of the Constitution. The current fiscal imbalance is unprecedented, and if not addressed will lead to a combination of fiscally induced migration and sizeable fiscal inequities. If all Canadians are to benefit from the resource boom, which politicians assure us should be the case, the consequences of this fiscal imbalance must be addressed.

There are various elements to addressing this imbalance. The most apparent is the equalization system, whose purpose is precisely to

[17] Some of the policies discussed below have been advocated in Boadway (2009).

undo fiscal capacity imbalances among provinces. The current system of equalization cannot do so by itself. Because it only equalizes have-not provinces up, it cannot undo imbalances between have and have-not provinces. Moreover, it only includes half of provincial natural resource revenues. It is also increasingly difficult, though not impossible, for the federal government to finance full equalization commitments with limited access to the main source of imbalances. The GDP growth cap on equalization reflects this difficulty. The system of social transfers contributes to equalization, and does so in a way that effectively equalizes both up and down. However, it does little to equalize resource revenues.

There are four main ingredients that would deal with the fiscal imbalance and the shortcomings of the equalization system in addressing this imbalance. The first is simply to maintain the integrity of the equalization system despite the apparent affordability issue with equalizing natural resource revenues. Ideally, the equalization budget should be fully formula driven, rather than being subject to discretionary limits or caps in growth. A well-functioning equalization system is absolutely critical for ensuring that the resource boom does in fact benefit all Canadians.

A second ingredient is to maintain an important federal presence in the income tax room. There is an intimate relationship between federal tax room and equalization in the sense that the more tax room is decentralized to the provinces, the greater the horizontal imbalance will be and the more difficult to address. Moreover, the more decentralized is the personal income tax, the less progressive it is likely to be, given that provincial income tax systems have less progressive rate structures. A national progressive income tax structure is an important element in a federal system for ensuring that shocks do not lead to significant inequities.[18]

Greater federal tax room allows for greater transfers, including social transfers. Although there is some equalization value in social transfers being equal per capita, a more proactive approach could be taken in light of the deficiencies of the equalization system to deal with the vast disparities among have and have-not provinces. Thus, as suggested by Courchene (2010), transfers to the have provinces could be conditioned on their fiscal capacity without necessarily undoing their role as vehicles for facilitating good social programs with minimal national standards. This is the third ingredient.

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[18] One approach discussed by Tremblay (2009) to address the problem of fiscal balance that fosters harmonization and cooperation is to adopt federal-provincial revenue sharing of major tax bases like the income tax and the GST/HST. This has proven to be effective in Australia and Germany. Elsewhere, Tremblay (2012) has discussed the potential benefits of a transfer of corporate tax room to the federal government combined with the adoption of formula-based revenue-sharing arrangements.

A final ingredient is to enhance the federal share of resource revenues so that achieving fiscal balance is affordable. The principle of the federal government acquiring a share of natural resource revenues is well established, at least as long as it is done in a way that is not explicitly discriminatory toward resource industries. On the contrary, the existing corporate income tax system favours natural resources, as briefly described in the previous section. There are a couple of structural changes that could be made to the corporate tax system so that it is fairer and more efficient and generates potentially more revenue for the federal government. One is to eliminate the deductibility of resource taxes from the corporate tax base. Apart from this being an unnecessary transfer from the federal government to the provinces, it also introduces distortions into the tax system.[19] In fact, the deductibility of resource taxes may well act as a disincentive for provinces to reform their resource taxation regime into more efficient rent-type taxes. This would tend to be the case if rent taxes were viewed as corporate income taxes (rather than production taxes), even if applied specifically to the resource sector, and were expected to receive the same treatment in the federal tax system as general provincial corporate income taxes.

More substantially, a corporate tax reform that has much merit in its own right is to convert the tax into an effective tax on rents. It is well known that a tax on corporate cash flow, as advocated by the Meade Report (1978), is equivalent to a tax on rents, so does not distort firms' decisions.[20] A cash-flow tax might be viewed as being politically difficult since it requires full refundability of losses. However, there exist cash-flow equivalent business taxes that avoid this problem. The most general case was outlined by Boadway and Bruce (1984) and Bonds and Devereux (1995). It involved adding all capital expenditures into an account that could be depreciated at any arbitrary rate, and allowing write-off each tax year equal to a depreciation rate and a risk-free interest rate applied to the undepreciated book value of the account. In effect, tax deductions on expenditures that are not immediately written off can be carried forward at the risk-free rate of interest. Special cases of this have

[19] Dahlby, Mintz, and Wilson (2000) show that the deductibility of provincial royalties from federal taxable income will tend to distort provincial policy choices because of a vertical fiscal externality. Broadly speaking, because of the deductibility of provincial taxes, part of the cost of provincial taxation is shifted to the residents of other provinces through lower federal revenues. This tends to distort the cost of taxation as perceived by provincial governments. They show that the policy required to eliminate this distortion necessarily involves less than full deductibility, and may even require the deductible to be negative.

[20] Technically speaking, this is true as long as the rents are not mobile. For example, rents from intellectual property can be taken in another country, in which case a rent tax would influence location decisions.

been advocated and applied in different contexts, including the ACE in various EU countries and the RRT in Australia. The advantage of this tax is that it avoids the inefficiencies of the current business tax system documented in the Mintz Report (Technical Committee on Business Taxation 1998), such as the discouragement of investment (e.g., positive marginal effective tax rates), the favourable treatment of the resource industries, the encouragement of debt finance, the imperfect system of integration with the personal income tax, and the incentive for tax competition. Such a reform would also contribute to reducing variations across industries in marginal effective tax rates on capital, as calculated by Chen and Mintz (2011), which would improve the allocation of investment across all industries and increase aggregate productivity. A tax on rents would capture revenues for the public sector from rents or pure profits generated from all sources, including monopoly rents, resource rents, locational rents, and rents due to special advantages. A corporate tax based on rents would generate for the federal government a share of resource rents using a tax that is not explicitly discriminatory, and would contribute to the federal government's ability to address fiscal imbalances arising from natural resources.

Turn now to the other serious issue, the failure of the provinces to save natural resource revenues, and instead either to spend them or to use them to reduce provincial tax rates. The options available to the federal government to address this are limited. In principle, it could set up a SWF from its own revenues to save for future generations. For example, a higher proportion of the Canada Pension Plan could be held as foreign assets as suggested by Shakeri, Gray, and Leonard (2012). This could also potentially reduce the risk level of the CPP fund associated with commodity price fluctuations. That is, through the Canadian component of the exchange rate, a negative shock to the price of commodities will generate a shortfall in national income and in CPP contributions. This shortfall would be partly offset by a depreciation of the exchange rate and a corresponding increase in the value of foreign-denominated assets measured in Canadian dollars. However, this policy would conflict with the independence of the CPP Pension Board. By the same token, large provincial pension funds like the Québec Caisse de Depot and Ontario public sector pension funds could also invest more heavily abroad, though this would be subject to similar objection.

A federal SWF would not mimic one formed by resource revenues that accrue to the provinces, so it would not undo the effects arising from the provincial inability to save them. The use of resource revenues for current purposes has various adverse effects. As mentioned, to the extent that the revenues are used to benefit provincial citizens, inefficiently fiscally induced migration is a result that can be dealt with by equalization. The spending of resource revenues enhances the spending effect, magnifying the exchange rate effect of a resource boom and thereby aggravating the Dutch disease. Though a federal SWF can partly offset this, it cannot offset the regional reallocation of factors of production that arise from province-specific spending. Finally, some of the spending of resource revenues is for provincial regional development purposes, such as the building of infrastructure intended to attract businesses from elsewhere, including other provinces. To the extent that this involves forgoing economies of scale in more populous regions, it is a source of inefficiency over and above that reflected in fiscally induced migration.

These problems would be mitigated to the extent that resource-rich provinces were induced to save more of the resource revenues. One lever that the federal government might use is manipulation of federal-provincial transfers. For example, equalization of resource revenues might be restricted to resource revenues that are spent rather than saved. Provincial resource revenues put into a SWF could be left out of the equalization formula, and brought back in only when the fund is drawn down. This would have to be thought through carefully, because there would be an incentive for provinces to game the system. Moreover, it should be noted that in the current equalization system, this proposal would be ineffective at increasing the saving of resource-rich provinces since they are not equalization recipients and the total equalization budget is determined by the GDP growth rate. However, as discussed above, conditioning the CHT/CST system on provincial fiscal capacities could overcome this problem.

Counterbalancing the negative impact of provincial regional development policies on other regions is even harder. One might argue that the federal government should invest in infrastructure for the traded goods sectors to improve productivity there. That will be difficult to do effectively and would only work to the extent that it reduced the diversion of factors of production from the traded sector to the resource industries. That is, traded industries would have to be favoured relative to non-traded ones. This would amount to a proactive industrial policy that presumes a government that is better informed than is likely to be the case. Some might argue instead that exchange rate policy could be used to undo the effects of the Dutch disease on the traded goods sector. However, this policy seems destined to be self-defeating except perhaps in the volatility version of the Dutch disease.

There may be some room for discretion in terms of how much value to add to resources before exporting them. From the point of view of Dutch disease consequences, this would seem to be bad policy because it exacerbates the problem. On the other hand, the prospect of adding value to raw resources might open the possibility of spreading the benefits to other regions. A variant of this argument has recently been voiced by Dodge (2012). He suggested active support for a pipeline from Alberta to central Canada to transport oil to eastern refineries. This project would at least ensure the spreading of some of the industrial activity associated with oil-sands exploitation to firms in central Canada.

The mention of pipelines reminds us of one more problem that decentralized control of resources implies for policy. Resource production and marketing require transportation infrastructure that involves non-producing provinces. This gives rise to natural coordination problems among producing and non-producing provinces, and suggests a role for the federal government in facilitating cooperation.

More provocatively, Dodge's eastern pipeline proposal was part of a broader proposal for the federal government to undertake public investments to build productive and fiscal capacity in all provinces, especially low-income ones. His argument is based on the idea that compensating provinces for deficiencies in fiscal capacity through equalization and other transfers will be insufficient to meet the commitments of section 36(2), given the growing disparities. Instead, these fiscal capacities must be addressed proactively. The argument for federal intervention draws on section 36(1) of the Constitution Act, which commits the federal government and the provinces to (1) promoting equal opportunities for the well-being of Canadians; (2) furthering the economic development to reduce disparity in opportunities; and (3) providing essential public services of reasonable quality to all Canadians. Federal infrastructure investment is a potential policy instrument for that purpose.

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MON PAYS, C'EST L'ASSURANCE-MALADIE: THE DISSONANT HARMONY OF CANADIAN HEALTH-CARE FEDERALISM

Katherine Fierlbeck

INTRODUCTION

"What is called union in a body politic," wrote Montesquieu in 1734, "is a very equivocal thing." In a work beguilingly entitled *Considerations on the Causes of the Grandeur and Decadence of the Romans*, he presented a theory of the "dissonant harmony" of the state that seems remarkably prescient:

> The true kind is a union of harmony, whereby all the parts, however opposed they may appear, cooperate for the general good of society – as dissonances in music cooperate in producing overall concord. In a state where we seem to see nothing but commotion there can be union – that is, a harmony resulting in happiness, which alone is true peace. (chapter IX)

Concerned with the centralizing tendencies of the state (which were palpably obvious in pre-revolutionary France), Montesquieu noted with some acuity the necessity for difference, disagreement, and discord in a large modern state. But, as he observed, these relationships can be

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very equivocal. The same forces that oblige the state to shift and adapt to changing realities can also be the ones that, in too large a measure, can destroy it.

This chapter examines the current dynamics of health-care federalism in Canada, and considers the consequences of the recent shift toward greater decentralization in health-care governance. Health-care reform in Canada has for decades been distinguished by its relative inertia, a stasis that has often been explained with reference to the theory of "path dependency." However, as Page (2006) argues, this approach has been utilized so widely that its explanatory potential has become quite diminished. The observation that substantial change requires a great deal of political will is not itself particularly illuminating. Rather, it is the more detailed discussion of what, precisely, these barriers to change are that are analytically more interesting.

"Structural change in the health-care arena," noted Carolyn Tuohy, "almost always results from exogenous factors" (1994, 189). Put another way, the health-care system in Canada is very difficult to alter in a radical or substantial manner largely because the institutional structure within which it operates is relatively immutable (due, *inter alia*, to the constitutional division of authority over health-related areas) and because key political actors (from provinces to physicians) often have more to lose than gain from changes to the status quo. The imposition of the Canada Health and Social Transfer in 1996, for example, resulted in considerable political turbulence and could have served as a window of opportunity to rethink the nature of health-care provision in Canada. However, while some reconfiguration did arise in federal-provincial relations per se there was, for a number of different reasons, very little movement away from the status quo in the area of health policy itself. The current political climate is so intriguing because the transformational opportunities for health care are even more tantalizingly closer and, at the same time, more potentially destructive.

While notable improvements have been achieved within the Canadian health-care system since 1996, these have largely been due to the considerable amounts of cash entering the system; for example, more resources have been directed toward the alleviation of wait times in strategic areas. Overall, significant structural change has been very limited. If the turmoil caused by the federal fiat imposed by a Liberal administration in 1996 was an opportunity lost, however, the federal declaration of non-engagement in health care proclaimed by a Conservative government at the end of 2011 is a window of opportunity that remains open. On the principle that one should never let a good crisis go to waste, this chapter examines the political and institutional dialectics that underlie the recent federal-provincial shifts in health-care policy. Courchene's 1996 ACCESS model is a useful point of departure. ACCESS (A Convention on the

Canadian Economic and Social Systems[1]) not only outlined suggestions for how to conceptualize greater decentralization in health-care policy, but also situated this discussion within the larger terrain of how Canada should think of itself as a social and economic union. The debate over whether Canadian health care *ought* to be more decentralized is a very substantial one (see Fierlbeck 2013) and, for the past two decades, this debate has consumed so much oxygen that there has been little left to discuss the question of what *kind* of decentralization might be best for Canadian health care.

The following section discusses the current nature of federal-provincial health-care relations within the context of the original 1996 ACCESS proposals. What were the objections to the model? How did health-care federalism develop in the wake of its demise? And why, more intriguingly, have we ended up with a far more extreme version of a model found so recently to be too drastic and impractical? The explanation offered here is that the current federal approach is informed not, as many believe, by open federalism, but by market-preserving federalism, which has a much clearer theoretical account of what can be achieved by reconfiguring federal relationships. However, there is no discussion in the literature about the consequences of market-preserving federalism for social programs and, more specifically, for health care in federal systems. The remainder of this chapter thus attempts to follow this line of thought, and to analyze the consequences of market-preserving federalism for health care within the specific context of Canadian federalism. Three points are raised. First, the imposition of competition between substate actors can lead to significant variability among provincial health-care systems. This variability, pushed too far, can severely undermine the efficient provision of health care in a number of different ways. Second, the constraints imposed by market-preserving federalism exacerbate the political polarization around the issue of health-care privatization. Supporters of public health care are unwilling to countenance blended public/private options because they fear, not unreasonably, the unmitigated privatization of the American model. Proponents of private health care in Canada refuse to acknowledge the regulatory (and other) conditions placed upon blended systems in Europe which allow them to offer health care in a way that surpasses both American and Canadian models. Because of this polarization, there are too few stakeholders left in Canada who are willing to push politically for an effective, blended system of health care. Third, the theory of market-preserving federalism is too deterministic. Given the specific

[1]All pagination references to the 1996 ACCESS document in this chapter are from the 1997 reprint appearing as an appendix to *Assessing ACCESS: Towards a New Social Union* (Courchene 1997).

conditions of market-preserving federalism, the theory assumes that substate actors have no alternative but to compete with each other. In certain policy areas this may in fact be quite clear. In the field of health care, however, there is an equally compelling logic for substate actors to behave not competitively, but collaboratively.

ACCESS AND BEYOND

"ACCESS: A Convention on the Canadian Economic and Social Systems" was a document born in a political atmosphere of rage and frustration; but it was also created with the cool recognition that social policy in Canada was undergoing "substantial, indeed unprecedented, decentralization." The policy challenge was to find a way for provinces to engage "more fully and more formally" in the "key societal goal of preserving social Canada" (Courchene 1997, 78). But the political context of 1996 was certainly not a propitious one for thoughtful and innovative long-term planning. The unanticipated Canada Health and Social Transfer effectively downloaded to the provinces the task of meeting increasing demands on social programs with more restricted transfer payments, and provinces were less concerned with rethinking policy design than with securing the immediate viability of vital and politically sensitive health-care programs.

It is worthwhile to note that the report of the Ministerial Council on Social Policy Reform and Renewal published in 1995 contained a number of recommendations regarding health care that remain as relevant and as pressing now as they were two decades ago. These included the suggestions that

- provincial/territorial Health Ministries identify the basic range of health services that should be insured in a national health system;
- provinces/territories develop new guiding principles that better reflect the realities of the modern health system;
- in order to enhance population health and wellness for all Canadians, the integration and coordination of service delivery systems receive greater attention as a shared priority within and among provinces and territories; and
- a federal-provincial/territorial process be established through which the parameters of the Canada Health Act can be clarified, refined, and interpreted.

Courchene's ACCESS model, commissioned by Ontario's Ministry of Intergovernmental Affairs, was a more theoretical rendering of the recommendations articulated in the Ministerial Council's *Report to Premiers*. Based on the same principle of greater interprovincial coordination, Courchene's account presented a more detailed discussion of the way in which the social union, economic union, fiscal relations, and labour markets could be integrated into an economically efficient and mutually constructive federal system. Referencing the detailed discussion of health-care reform articulated in the *Report to Premiers*, the blueprint for the "full" ACCESS model (as opposed to the "interim" proposal) called for

- full provincial responsibility for design and delivery of health, social services, and education; and
- an enforceable interprovincial accord whereby the provinces jointly implement and maintain a framework of principles and standards/ equivalencies that will guarantee across Canada rights such as mobility and portability.

The response to the plan by academics was not supportive. Criticisms focused on three main points: that ACCESS would undermine or eliminate national standards in health care; that provinces were not capable of sustained co-decision-making on substantive issues; and that the federal government would refuse to devolve the de facto authority that it currently possessed in the field of health policy (see, e.g., Maioni 1999). And, while some academics charged that the proposal would be "especially seductive to the politicians and bureaucrats of provincial governments" (Usher 1996, 7), provincial officials themselves seemed oblivious of such apparent opportunities and distanced themselves quite quickly from the proposal. Smaller provinces were especially wary of the model which, they felt, imposed a rather onerous burden upon them as it did not recognize differing fiscal and administrative capacities between provinces.

In the end, none of the major health-care initiatives outlined in the *Report to Premiers* were pursued. The focus for collective action remained, more broadly, on attempts to restrict federal unilateralism and to address the growing fiscal imbalance between Ottawa and the provinces. But if the Ministerial Council's report had little impact upon health care itself, the report did serve as the impetus for reestablishing both federal and confederal relationships. To an extent, the task of redesigning the contours of Canadian health care became sidelined by the diffidence over national unity that arose in the wake of the 1995 Quebec referendum. Thus the collaborative efforts by premiers for the next ten years were quite broad, and focused primarily upon the issue of which principles ought to guide the relationship between the federal and provincial governments. The 1995 Calgary Declaration, the 1998 Saskatoon Consensus, the 1999 Victoria Proposal and, finally, the 1999 Social Union Framework Agreement (SUFA) illustrate the gradual development of a new "blueprint" for intergovernmental relationships. SUFA, the culmination of this exercise, was in effect a form of diplomatic ceasefire in which all governments would respect the jurisdictional authority of the other. This new modus operandi was recognized quite clearly by the reconstituted Conservative party under Stephen Harper, which made "open federalism" an integral aspect of its political campaigns.

At a less abstract and more political level, however, provincial governments remained frustrated and dissatisfied with the fiscal imbalance that remained notwithstanding abstract agreements on jurisdictional autonomy. The Quebec Liberal Party, which had historically been a strong proponent of pan-provincial political activity, regained power in 2003 and became the driving force for a permanent agency representing the interests of the provinces. However, the political blueprint for the new Liberal Party's intergovernmental strategy was the report of the Séguin Commission on Fiscal Imbalance (*A New Division of Canada's Financial Resources*) which, rather delightfully, had been commissioned by the sovereigntist Parti Québécois administration. The political mechanism for attaining greater vertical fiscal balance, according to the report, was a formal political body uniting all of Canada's provinces and territories. The Council of the Federation, established soon after, was an emphatic reminder that Ottawa was facing a rare but determined bulwark of provincial concord on the issue of vertical fiscal imbalance. But the true mettle and functional capacity of the Council of the Federation was never really tested, as Ottawa released its purse-strings and designated $36 million in additional health-care spending to the provinces as part of the 2003 Health Care Accord. Negotiations between Ottawa and the provinces at the Council of the Federation meeting at Niagara-on-the-Lake in June 2004 also established a plan of action that would develop into the Ten-Year Plan to Strengthen Health Care. But if these accords seemed at the time to illustrate the success of the Council of the Federation, the failure of the provinces to achieve any real structural reform in the longer term seemed to underscore precisely what critics of ACCESS had noted: that, without a stringent and vigorous attempt to coordinate and oversee health-care renewal, autonomous provinces working independently would not be able to achieve substantial systemwide reform.

Open federalism…

It was the approaching expiration of the 2004 agreement that precipitated the attempt by provinces in 2012 to think about the more demanding aspects of health-care reform in a more collaborative manner. Provinces expected that the preliminary steps to renegotiating the existing health accord would be introduced at a meeting of federal and provincial finance ministers in December 2011. But the federal finance minister, Jim Flaherty, clearly stated that Ottawa was no longer interested in providing policy leadership in the area of health care. Federal health-care funding would continue, on somewhat different terms, but provinces would be responsible on their own for using these funds effectively to meet the crises in Canadian health care. On the surface, this seemed to reflect the

Conservatives' support for the principle of open federalism, in which federal and provincial governments operate clearly within their respective spheres of jurisdiction and make no attempts to overstep jurisdictional boundaries through indirect means (most pointedly, in Ottawa's case, through the utilization of its controversial spending power).

Yet by 2011 it became clear that Ottawa's commitment to limit its influence was much more strategic than a general policy of open federalism would suggest. While the federal government did in fact retreat from areas of social policy – especially those areas involving open-ended cost increases – Ottawa showed that it was much more willing to step on provincial toes in order to secure a more effective economic union. In 2011, after securing a majority government, the prime minister announced that the federal government intended to play "a more active role in promoting the economic union," pointedly, through "tearing down the walls of provincial interest" that hindered economic growth (Curry, Scoffield, and Perkins 2012, A1, A4). For example, despite strong protests from the provinces, Ottawa attempted to establish a national securities regulator; even after this attempt was rejected by a Supreme Court decision, the federal government decided to regroup and devise a new model for securities regulation at a national level within the parameters established by the Supreme Court ruling. A further attempt to secure economic union was articulated in 2012, when Ottawa proposed allowing credit unions (which are, unlike banks, under provincial jurisdiction) the option of becoming federally incorporated and, therefore, under federal supervision. Provinces are not inherently disinclined to accept an economic union: the Alberta-British Columbia Trade, Investment, and Labour Market Agreement (TILMA), for example, which led to an amendment of the Agreement on Interprovincial Trade, had its genesis in discussions supported through the Council of the Federation. Nonetheless, the provinces maintain that it should remain within their discretion to determine whether the lowering of interprovincial barriers to trade and labour mobility are, in specific instances, in their respective interests or not.

Casting further doubts upon a principled commitment to open federalism was Ottawa's willingness to stand by its "tough on crime, tough on drugs" position even when doing so impeded provincial governance. Protesting the introduction of Bill C-10 (the Safe Streets and Communities Act), Ontario's minister of Community Safety and Correctional Services noted that the legislation would require significant new spending for which the province had not budgeted. "In our view," she stated, "it is not appropriate for one level of government to create financial burdens for another without discussion and an appropriate financial offset" (Mackrael 2011). Likewise, the federal government attempted unilaterally to close Vancouver's Insite clinic notwithstanding provincial autonomy over health care. The Supreme Court, supporting British Columbia's demand that the clinic remain open, found the federal minister of health's "decision arbitrary and its effects grossly disproportionate" (section 134). In other words, noted the *Globe and Mail*, "the [federal] government cannot simply close down clinics based on its own distaste for legally sanctioned drug injections" (Makin, Dhillon, and Peritz 2011).

… Or market-preserving federalism?

If Ottawa's actions did not seem to reflect a clear commitment to open federalism, they did seem to fall neatly into a pattern of market-preserving federalism. A theoretical variant of rational choice theory, market-preserving federalism is based upon the premise that restructuring the federal relationship between governments can result in greater economic growth. Originally designed in the mid-1990s as a development tool for states such as India and China, market-preserving federalism is an attempt to redesign the way in which federalism is configured so that substate actors are placed in a permanent political environment within which they are unable to encroach upon private property rights and wide-ranging market freedoms. That federalism could restrict economic policy-making, as Weingast (1995, 3) explained, "via limits on the discretion of the government" had already been noted decades earlier by economists such as Tiebout (1956) and Oates (1972). What the school of market-preserving federalism added to this was the observation that such dynamics had to be structurally self-reinforcing rather than simply subject to the political will of the government of the day.

The point of market-preserving federalism is to prevent what McKinnon terms political short-termism: "the propensity of politicians to deficit-finance current expenditures in order to win the next election" (1997a, 116). Deficit financing can only be prevented by limiting substate governments' access to credit (by constraining the supply of easy money through mechanisms such as loans or federal transfers) and their ability to tax (by ensuring the mobility of goods, services, labour, and capital across borders). The simple conditions of market-preserving federalism, in this way, are monetary separation, fiscal separation, freedom of interstate commerce, and unrestricted public choice (ibid.) The logic of market-preserving federalism requires that relatively autonomous substate actors compete with each other to attract business to their domains. They must be responsible for raising revenue through their own tax bases, and cannot rely upon federal largesse if they become uncompetitive. The role of the national government is primarily to facilitate the common market that enables capital to find the most auspicious location in which to invest. Deprived of federal transfer funding or other sources of easy credit, substate governments no longer have the capacity to "pay too much to attract new enterprises" or to "pour money into loss-making steel mills, coal mines, airlines, state-owned banks, and so on" (McKinnon 1997b, 1575). This may of course disadvantage economically deprived regions, preventing provinces from protecting employment opportunities for their citizens. But, given a state in which the common market permits both capital and labour to be highly mobile, individuals are not limited by the lack of job opportunities in any one region: "mobility compels no one to live in a poor state" (Courchene 2003, 6).

Ottawa's attempts to strengthen Canada's economic union, and its lack of interest in helping to facilitate the Canadian social union, is more clearly indicative of a commitment to market-preserving federalism than it is to open federalism. The extent to which a strategy of market-preserving federalism can effectively be applied to Canada is debatable given that legal structures, historical conventions, and political realities limit the "hard constraints" that the federal government can impose upon the provinces. Nonetheless, provinces are being exposed to a discernable squeeze in the area of social spending. The Office of the Parliamentary Budget Officer (2012, 2), analyzing the effects of the health transfer regime announced by Ottawa in December 2011, calculated that the projected average growth in Canada Health Transfers to provinces and territories would be – with the notable exception of Alberta – less than the projected growth in health spending by these jurisdictions. In other words, because the CHT had been calculated upon both cash and tax point transfers, Alberta had been receiving substantially less than other provinces; under the new system, in which calculations are simply made on a per-capita cash basis, that province's level of transfers increased substantially (see Di Matteo 2012).

The new regime of health-care federalism is based upon the principle that provinces should now be free to design and implement health-care policies according to their own needs and priorities. Given that provinces have always had the ability to do so, of course, the subtext is that the provinces should now be free to design and implement health-care policies without being bound by the Canada Health Act. Yet, because public support for Canada's iconic health-care system remains high – a November 2012 Leger poll indicated that it was the first priority for Canadians "as a source of personal or collective pride" (Cheadle 2012) – no government would explicitly oppose the Canada Health Act. Nonetheless, a policy of passive neglect and failure to enforce the CHA has slowly become entrenched. Given the fiscal pressure imposed by the December 2011 health transfer formula, and the understanding that Ottawa would no longer be concerning itself with any overarching principles regarding the nature of health-care funding or delivery, the murkier question is the extent to which provinces are being (either actively or passively) encouraged to pursue various forms of market-based solutions in this area.

Regardless of the extent to which Ottawa has explicitly attempted to restructure Canadian federalism upon the terms outlined by the school of market-preserving federalism, the degree of unhindered policy freedom afforded provinces by Ottawa within the domain of social programs is quite significant. This turn of events would seem, at first glance, to accord well with the "bias of decentralization" outlined in the 1996 ACCESS proposal, which holds that "provinces must have the flexibility to design and deliver their own vision and version of the socio-economic envelope" (Courchene 1997, 84). Nonetheless, while ACCESS was roundly criticized for its extreme decentralization, it was always balanced by the declaration that provinces' freedom to design policy was to take place within a framework of national norms and principles, be they federal, federal-provincial, or interprovincial. Given that the Canada Health Act is justiciable only at the federal level and does not apply directly to provinces, and given that the federal government has declared itself uninterested in either setting or policing such norms and principles, it is arguable whether such norms and principles currently exist at all. There is some debate as to whether the attempt by premiers to establish a pan-provincial working group on "health care innovation" actually comprises a national framework of norms and principles (see Fierlbeck 2014). ACCESS, in other words, contained a very Montesquieuean set of checks and balances that considered provincial autonomy within the context of "preserving and promoting" the social union. The current regime of market-preserving federalism does not endorse such a balance. It is, noted Courchene, called "*market*-preserving federalism" for good reason: "it is driven by efficiency concerns with no guarantees that the result will also be '*cohesion*-preserving federalism'" (2003, 14). What does this mean for the future of the health-care system in Canada?

THE CANADA HEALTH ACT IS DEAD. LONG LIVE THE CANADA HEALTH ACT!

The refusal to consider ACCESS as a policy model was partly driven by the failure of academics to consider the possibility that Ottawa would willingly relinquish the hold it had on social policy design through instruments such as the spending power. Even in 2008 political scientists were declaring that "it is clear that the federal government's participation in social policy is not going to whither away" (Graefe 2008, 58). This was, given public sentiment and the fragmentation within the federal party system at the time, not an unreasonable view to take. But ACCESS did not fail politically because of academics' lack of support. It failed because of the lack of political support for an "enforceable interprovincial accord" that would require a stringent co-decision process, effectively placing limits upon provincial autonomy. Any attempt at establishing an interprovincial accord with teeth sharp enough to enforce standards would have to grapple with the dynamics of the "joint decision trap," a situation in which the terms of agreement are "defined by a 'bargaining' logic" in which the benefits received under the existing system "become the base line below which nobody will settle" (Scharpf 1988, 264; see also Scharpf 2006 and Falkner 2011). Given the disparity in both the economic capacity to pay for social programs and the ideological predisposition to do so, any mutually acceptable decisions would likely not differ significantly from the status quo. As Montesquieu argued over two hundred years ago, a democratic system of decision-making depended on a strong spirit of mutual concern and collective well-being necessary to overcome the particular interests and prejudices of the decision-makers. (He was not particularly optimistic of the likelihood of attaining this level of virtue, noting, in his time, the "droll spectacle" of "the impotent efforts of the English towards the establishment of democracy" [1752, Book III].)

Canada has achieved half of what ACCESS proposed under its "social union" stipulations: full provincial responsibility for the design and delivery of health care. But we still seem to be far from achieving any form of national coordination of these provincial systems. What are the potential consequences of such decentralized governance in health care?

Greater variability in health care across provinces

Canada is perhaps the most decentralized of all the OECD states (Marchildon 2013; Requejo 2010; Watts 2008). Because of the centrifugal force of the country's federal structure, it is often argued that there must be a more integrative dynamic to counterbalance this propensity. That, argues Romanow (2002), is precisely the nation-building function of public health care, which serves "as a public good, a national symbol and a defining aspect" of Canadian citizenship (xviii). There are in fact two quite distinct dimensions of this function of Canadian health care: first, to ensure that Canadians have access to necessary medical services regardless of ability to pay (social citizenship) and, second, to secure this access across the nation regardless of provincial domicile (national citizenship). The assumption is that both functions operate in tandem. But, as this section will argue, the dynamic between the two is far less certain, and the attempt to secure the latter can in some cases be detrimental to the realization of the former.

That a considerable degree of variability in the ability to secure health-care services exists across Canada should not be surprising given the disparity in the capacity of provinces, notwithstanding federal transfers, to provide these services. The Canadian Institute for Health Information (CIHI 2012a) reports that the percentage of people receiving care within the time established by national benchmarks varies considerably between provinces: in Ontario, for example, 90 percent of patients receive hip replacements within the designated period (compared to 62 percent in Nova Scotia); 85 percent receive knee replacements within this time period (44 percent in Nova Scotia), and 97 percent receive radiation therapy (83 percent in Nova Scotia). The gap in median wait times for CT scans (7 days in Ontario; 20 days in Nova Scotia) and MRI scans (34 days in Ontario; 52 days in Nova Scotia) is similar (CIHI 2012b). These huge discrepancies are echoed in other areas of health policy, such as pharmaceutical coverage (Demers et al. 2008).

Notwithstanding the unevenness in access to public health-care resources across the country, all provinces, within the parameters of what they are able to provide, still hold fast to the principle that access to health care should depend upon need rather than ability to pay. Attempts to introduce a clear expansion of private services (such as those outlined in Alberta's 2002 Mazankowski Report and Quebec's 2008 Castonguay Report) were quietly shelved due to emphatic public opposition. In the last instance, it will always be the support of a province's population, rather than any national legislative effort, that will determine whether public health care is protected and maintained. But the demand to see an identical level of health-care provision across all provinces (health care as an articulation of national citizenship) can in fact *undermine* the ability of provinces to provide an effective level of accessible health care to their own citizens (health care as a form of social citizenship).

The tension between health care as national citizenship and health care as social citizenship is a result of both the widely divergent fiscal capacity of provinces and the highly political nature of expenditure choices in health care. Larger provinces have a greater capacity to absorb economically inefficient (but politically strategic) spending allocations, while poorer provinces do not. Yet the very fact that better-off provinces can choose politically popular (but clinically dubious) practices (such as funding Lucentis over Avastin as a treatment for macular degeneration, or establishing clinical trials for "liberation theory" in the treatment of muscular sclerosis) imposes political pressure on smaller provinces to do so as well. If political choices are made to follow the lead of larger provinces, the capacity of smaller provinces to provide efficient and effective treatments will be undermined due to the resulting funding reallocations. The simple popular expectation that treatment options should be available to individuals across Canada ("my sister, who lives in Ontario, receives Lucentis – why can't I, just because I live in another province?") itself limits the ability of provinces to provide public health services in the most efficacious manner possible for their particular populations. The more that smaller provinces strive to provide the same range of services as the larger ones (thus protecting the principle of national citizenship), the more difficult it is for them to provide these services in the public sector (thereby undermining the principle of social citizenship).

The expectation that equivalent health-care services should be provided across Canada even if these services are inefficient, and arguably obsolete, is reinforced by the Canada Health Act. Even as a largely symbolic piece of legislation, the Canada Health Act is a potent political force because it represents an aspect of Canadian political culture – universal health care – that remains a very evocative and popular idea for the Canadian electorate. The alternative to the Canada Health Act is always presented in binary form – if not the Canada Health Act, then a thoroughgoing American-style privatization of Canadian health care. There are very understandable political reasons for promoting this dichotomy. But it buries the fact that the Canada Health Act is based upon the way in which health care was provided in Canada in the middle of the twentieth century. Reifying an ossified system of health-care delivery in radically different circumstances simply undermines the ability of the political system to design a more relevant and efficient form of health-care delivery.

Specifically, the Canada Health Act is based upon the assumption that medical treatment is provided *by* doctors and *within* hospitals. The attempt to build a modern, efficient, and equitable system upon these increasingly outdated assumptions becomes quite tortuous. Legally, provinces can only receive federal health-care transfers if the services provided by doctors, or in hospitals, meet the five criteria specifically outlined by the CHA (public administration, universality, accessibility, comprehensiveness, and portability). In practice, it is much more efficient to provide primary health-care services through the use of collaborative centres, long-term-care institutions, and home care services using non-physician health-care professionals (nurses, nurse practitioners, dental hygienists, dieticians, pharmacists, psychologists, addiction counsellors, physiotherapists, personal care workers, and so on). These services can of course currently be provided by provinces as they wish, and they need not fall under the rubric of the Canada Health Act. But as provinces provide health care through the use of non-physician health-care professionals, and outside of hospitals, the patterns of health-care provision begin to differ quite considerably across Canada, thereby undermining a sense of "pan-Canadian" health care. The problem, again, is that hewing closely to the Canada Health Act to ensure similar services across Canada means that provinces must provide health-care services in an economically unsustainable manner. The Canada Health Act, notwithstanding the sensible and humane principles underlying it, is arguably the main reason that Canada has fallen behind other major OECD countries in its health-care indicators and in its capacity to achieve effective policy reforms.

Regardless of the Canada Health Act, provinces are currently providing an ever-greater level of services through alternative care delivery (i.e., outside of hospitals, using medical personnel other than doctors). To the extent that provincial variability is an efficient and responsive means of allocating health-care resources, significant variation from the Canada Health Act is not in itself necessarily a great concern. Regardless of how efficiently services can be structured within each province, however, increasingly greater diversity between provinces makes it more difficult to preserve the portability of health insurance across jurisdictions. The real, though unacknowledged, success story of the way in which health care has converged under the regime of federal transfer payments has been the ability to claim health benefits across Canada regardless of place of residence. Those who claim that there is no "Canadian" health-care system should take a hard look at the legal and political analyses of the current attempt to streamline cross-border health care in Europe (see, e.g., Hermans 2008; McKee and Belcher 2008; Rich and Merrick 2006). A clear advantage that Canada has in this regard is that portability is so easily maintained because of the similarity between provinces in health-care design, especially compared to the striking variability between health-care regimes within the European Union. The one small exception to this applies to citizens of Quebec, who face specific challenges when receiving out-of-province health-care treatment. Should all provinces continue to diverge in their approach to health-care design, and do so without any attempt at coordination, residents of all provinces will be confronted with increasingly burdensome barriers when seeking medical treatment outside of their home province.

Somewhat ironically, a declining capacity for portability across provinces would also undermine the conditions for market-preserving federalism. A key assumption for the effective operation of market-preserving federalism is high mobility, both of labour and of capital. As the American experience shows, the inability to easily carry health insurance coverage across state borders has a direct impact upon the willingness of individuals to seek employment outside their state of residence. Greater provincial variability, moreover, can lead to patients "shopping" for treatments across Canada. This would decrease the willingness of any province to offer any services not provided by others, given the stress that such demand could place on these services. There is, in sum, a very delicate balance between the benefits offered by decentralized health-care federalism (such as the capacity to respond to local needs and the ability to experiment with policy design) and the damage that can occur if provinces are obliged to adopt beggar-thy-neighbour strategies. Market-preserving federalism, in its silence regarding the complexities of modern health-care design, only recognizes one side of this dynamic.

One might suppose that one of the advantages of a more decentralized federal health-care system would be the potential for a great deal of experimentation by discrete provinces on particular ways of blending public and private health policy mechanisms. And yet we see the opposite: there is great reluctance on the part of provincial governments actively to experiment with blended systems. It is to a discussion of this phenomenon that we now turn.

Increased privatization of health care

The Canada Health Act has always been a potent symbol of Canadians' commitment to public health care. Federal unwillingness to enforce the provisions of the Canada Health Act has provoked the fear that provinces will no longer honour the principle of equal access to health care, while the dynamics of market-preserving federalism – the need for provinces to lower taxes in order to compete effectively for business – mean that public expectations for publicly funded health-care services are increasingly disproportionate to provinces' capacity to provide them. Will this dynamic place increasing pressure upon provinces to decrease barriers to private health-care delivery and services? The usual responses to worries about health-care privatization have been, first, that the Canada Health Act is not, and never has been, a barrier to private insurance; the regulatory obstacles to private insurance are based upon provincial legislation and are dependent upon provinces' perceptions of what their electorate will sanction (note the reversal in Quebec on user fees). Second, it is generally observed that the current system of "Canadian" health care has *always* included a significant level of private provision, from service providers (doctors and hospitals) to medically necessary goods such as pharmaceuticals provided outside of hospitals.

Yet the current debate over privatization is conceptually distinct. It addresses the possibility of offering private medical insurance for services currently covered by public plans, without requiring doctors to choose between public and private payment options, as well as out-of-pocket treatment options that bypass the queuing system established within public systems. Politically, the demand for greater privatization has been driven by lengthy wait times and circumscribed treatment options; legally, the 2005 *Chaoulli* decision has provided a precedent for the stipulation that wait times long enough to compromise the quality of treatment can and must override the public decision of how to allocate health-care resources. On the one hand, critics of greater privatization have argued that, far from alleviating pressures on the public system, the dynamics of greater privatization actually put greater pressures on public health care (e.g., Flood, Stabile, and Hughes Tuohy 2004). On the other hand, proponents of expanding access to private health-care insurance and services argue that the experience of other countries illustrates that greater privatization in the health-care sector can lead to superior health-care indicators than those that Canada currently experiences (e.g., Davis, Schoen, and Stremikis 2010; Simpson 2012).

Politically, the problem is that the debate in Canada remains so polarized that there is little willingness to acknowledge that greater privatization has the clear potential to serve public health goals, although only under very circumscribed conditions. If there is a lesson to be learned from some of the top-performing health-care systems, it is that an amalgam of public and private health-care options can work fairly effectively, but only if stringently regulated. While the particular configuration of public/private options differs quite substantially between, say, France, Germany, the United Kingdom, and the Netherlands, all offer much more substantial access to private health care than does Canada. Proponents of private health care, including those such as Brian Day, who operate private clinics and who have been involved in launching *Chaoulli*-type challenges in Alberta, British Columbia, and Ontario, have made this point quite emphatically (Picard 2012).[2]

While proponents of private health care will point out that Canada has some of the longest wait times for elective surgery among OECD states (Commonwealth Fund 2011), they fail to acknowledge that the states that address wait times quite effectively also have *a considerably higher proportion of overall public expenditure* in the health-care system. In Canada, for example, public expenditure is only 71 percent of total health-care expenditure, while in France and Germany it is 77 percent, and in Netherlands and New Zealand it is 86 percent and 83 percent, respectively (OECD 2012). Moreover, physician incomes are generally higher in Canada than in many other high-performing health systems: an orthopedic surgeon in Canada, for example, earned $208,634 in 2008, compared to $202,771 in Germany, $187,609 in Australia, and $154,380 in France; a primary care doctor received $125,104 in Canada, $95,585 in France, and $92,844 in Australia (all US$ purchasing power parity; see Laugesen and Glied 2011). Finally, the states with significant private components that have reasonably good health care indicators also heavily regulate the costs of health-care goods and services. In 2008, for example, a hip replacement in Canada cost $652 (US$ purchasing power parity). In France, a hip replacement cost $674 in the public system and $1,340 in the private system; in the United States, the same operation cost $1,634 in the public system (generally Medicare or Medicaid) and $3,996 in the private system (Laugesen and Glied 2011). If cost containment is a desirable goal, then the strict regulation of health-care costs is absolutely essential.

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[2] When engaging in international comparisons, a note of caution must be given regarding attempts to rank order states' health-care systems as whole units (as opposed to the comparison of specific health-care indicators). Following the WHO's ill-fated publication of rankings in 2000, a methodological outcry led health policy scholars to focus on much more selection analysis of health-care indicators (Fierlbeck 2011, 219-23). The problem, of course, is that any ranking will depend on the indicators one chooses to use, and indicators can vary quite widely even within specific countries. One of the few organizations to continue to rank order health-care systems is the Conference Board of Canada (Muzyka, Hodgson, and Prada 2012) which, pointedly, places Canada tenth (with a B ranking). Japan is given first place (with an A ranking), although there is good evidence to argue that Japan's health-care system is one which should certainly not be emulated. For example, Japan has the highest average length of stay in hospitals (OECD 2012) and one of the highest levels of pharmaceutical consumption in the world (OECD 2012; WHO 2004, chapter 4). In areas where indicators seem to show careful utilization of resources, such as a low number of doctors compared to lower-cost health-care professionals (OECD 2012), the political explanation (that Japan cannot recruit as many physicians as it would like due to the language barrier) belies the attractiveness of the Conference Board's "A" rating.

Politically, however, those pursuing more private health-care options in Canada are only focusing upon greater privatization, not greater privatization within the context of higher taxes, lower doctor incomes, and heavy regulation. Yet, if the comparison with OECD states shows that more private options can have positive results, the full story is that more private options can have positive results *under particular conditions*. Unconditional privatization leads to the skyrocketing costs, inefficiencies, and inequities that characterize American health care. Certainly there is much more room for controlling costs in Canada by curtailing physician income: while the average Canadian wages have remained stagnant for the past two decades, physician incomes – especially specialist income – have risen considerably (Leonard and Sweetman 2014). Politically, however, curtailing physician income is a difficult task for governments to achieve even at the best of times.

If the Canada Health Act is dead, then, ought we to fear the greater privatization that might well result? Yes, if this privatization occurs without any thought about the kinds of conditions that would allow it to be used effectively and fairly. But no, if there is a clear quid pro quo for accepting more private options. Indeed, part of the problem is that the terms "public" and "private" are almost obsolete in this context, given that they no longer denote clear policy options (Should a heavily regulated fee schedule of privately provided services paid through private insurance be considered "private" or "public"?). Yet most OECD states are already grappling with the particular mix of public and private instruments. The problem in Canada is that while there is little political will on the left to discuss private health care at all, there is little political will on the right to accept more privatization on conditional terms. And so private health care *sensibly* provided remains off the political agenda altogether.

From a purely theoretical perspective, market-preserving federalism would seem to give a strong impetus for substate actors to address high-cost drivers like health care as quickly and as stringently as possible. Yet market-preserving federalism has a thin and underconceptualized account of the political context within which these decisions are made. As the narrative above notes, provincial governments must make decisions within a political culture that largely endorses public health care. That means that the political decision to reduce public expenditure must be balanced against the electorates' demands for a health-care system based upon need rather than income. It is not as easy a decision to make as proponents of market-preserving federalism assume. Because of the way in which specific political dynamics interact with the attempt to impose hard constraints in a federal system, the outcome is, in reality, much less deterministic than theoretical accounts of market-preserving federalism suggest. The best example of this is the way in which provincial governments have responded to the imposition of harder constraints not by increasing the level of competition in the sphere of health policy but, rather, as the next section describes, by attempting the difficult and demanding strategy of pan-provincial collaboration.

New forms of governance?

To afford an equitable health-care system, it is essential to establish a cost-effective one. Cost-effectiveness requires, *inter alia*, all jurisdictions to avert unnecessary duplication of services, to establish best practices across all fields of health care, and to avoid internecine battles for medical personnel, limited pharmaceuticals, and other goods and services. Two separate dynamics make such coordination imperative: one is the complex and expensive nature of many treatment options; the other is the rubric of market-preserving federalism within which provinces must develop their economic and social policies. These dynamics are not unique to Canada; other federal systems with advanced health-care systems have been attempting to think about health policy design within similar circumstances. Fritz Scharpf (2002), for example, has noted a similar dynamic within the European Union:

> In the *horizontal* relationship among policy areas, European social law is necessary in order to provide a legal counterweight to the supremacy of internal market and European competition law. At the same time, moreover, European social law also has an important role to play in the *vertical* dimension in order to control the beggar-thy-neighbour incentives which will tempt individual Member States once they seriously begin to adjust their social-policy regimes to the constraints and competitive pressures of the internal market and monetary union. (662; emphasis in original)

The context of health policy-making today (as well as the very nature of health policy itself) is in this way dramatically different from the landscape of the 1940s, when the original design for the Canada Health Act was crafted. Lindquist (2012) lists the reasons for governments to move beyond the model of provincial policy autarky in the twenty-first century: "increasing complexity and interdependence of issues; increasing demands from citizens for better service; the accelerating pace of technological change; and increasing demands for accountability and results reporting." These phenomena are by far most pronounced within the health-care sector. To these, he adds, we can more recently append "the significant pressures on national budgets and uncertainties following the Global Financial Crisis, the Harper government's tight control of the policy direction, communications, and the public service, and its determination to devolve responsibilities to provinces and territories." The fundamental insight of the ACCESS strategy was that an effective federal state had to have the flexibility and the discipline to be forward-looking; that is, it had to acknowledge that contemporary crises could not be effectively addressed if chained to obsolete governance models.

Foremost among these necessary changes has been the need to establish horizontal communication and coordination across all levels of jurisdictions: municipal, district, provincial, and regional. Because of legislative and regulatory structures, changes to provincial governance structures are the most difficult to achieve but, given the decision-making authority of provinces, the provincial level is also potentially the most fertile ground for collaborative endeavours.

As a great deal of rational choice literature notes, however, altruistic behaviour can be costly and irrational, and especially so when the exigencies of electoral politics amplify regional or ideological differences. The great puzzle of intergovernmental coordination is how to align provincial interests in a way as to secure particular behaviour without excessively limiting provincial decision-making capacity. The trade-off is a difficult one. The mechanism used by the Canada Health Act was that of a positive financial incentive, but this model has been critiqued for being intrusive and failing to secure effective change (Fierlbeck 2013). One alternative to this kind of coordinating mechanism was presented in the ACCESS proposals as an "enforceable interprovincial accord," but the historical record in achieving this kind of co-decision model has been quite limited. This point was forcefully articulated in criticisms of ACCESS. Why would any attempt at pan-provincial decision-making be different now? It might not be. But there are reasons to believe that a greater role for collaboration in non-binding governance mechanisms may be possible.

First, the costs of not cooperating are becoming palpably higher than they were 15 years ago. All provinces are faced with a complex, expensive, rapidly changing domain that requires a tremendous understanding not only of medical expertise but also of the computer-based knowledge and communication platforms that are being erected to manage health care. Many provinces – especially the smaller ones – simply do not have the capacity (in time, finances, or human resources) to think through these long-term planning challenges. Second, the discussion of new forms of governance in the academic realm over the past two decades has established an intellectual armature upon which to base governance models different from the hierarchical command-and-control models of the twentieth century (e.g., Farrelly, Jeffares, and Skelcher 2010; Greer 2011; Sabel and Zeitlin 2008; Scott and Trubek 2002; Trubek and Trubek 2007). Indeed, partly because of Canada's uncompromising federal system, a great deal of policy coordination at the level of discrete policy formation (e.g., the Canadian Health Human Resources Network, the Canadian Network for Observational Drug Effect Studies, the Centre for Research in Healthcare Engineering, and the Canadian Partnership against Cancer) has been developing in Canada in recent years. Third, however ephemeral and ineffable the concept of "political leadership" may be, there has been a notable willingness by Canadian premiers to commit resources to the development of collaborative activity in the field of health policy

(Council of the Federation 2012). The degree of formal decentralization that has evolved since December 2011 in the area of health-care federalism is far greater than any observers had anticipated, and certainly far greater than that proposed by ACCESS. Intriguingly, however, the form that this radical decentralization has taken is, somewhat paradoxically, greater voluntary collaboration between provinces.

CONCLUSION

Materialist analyses of political change are wildly out of fashion. But Marx's fundamental insight – that technological change was a key driver of social and political structures – is conspicuously applicable to health-care federalism. The way in which health care is provided has radically changed, making existing legislative frameworks increasingly obsolete. But, as path dependency theories point out, those with vested interests in the status quo can prevent significant change from occurring despite the need for such systemic change. When a system experiences "shocks," however, existing relationships are destabilized, and decision-makers can take advantage of these windows of opportunity to push for fundamental structural reforms. The precise nature of these reforms, of course, depends upon the particular constellation of political variables in any given case.

The structure of Canadian health-care federalism has shifted dramatically since December 2011, and proponents of universal public health care fear that the imposition of a regime of market-preserving federalism in an environment of severe fiscal retrenchment will result in a form of devil-take-the-hindmost health care that still remains entrenched in the United States despite recent American reforms. These fears may be well-founded. On the other hand, clinging to the status quo in Canadian health-care governance is increasingly unsustainable. Courchene's 1996 ACCESS model was a bold attempt to think through how Canada's social programs could be realigned with economic growth within a new paradigm of federalism. Though dismissed at the time as unworkable, it was in fact a portent of things to come. The radical decentralization of social programs in conjunction with an enhanced common market became federal policy 15 years later. What was lacking, of course, was the set of common goals and standards that had for decades been the hallmark of Canadian health-care federalism, and which ACCESS attempted to preserve.

The discussion of how market-preserving federalism affects social policies like health care raises the larger question of why this approach was even attempted in Canada. Developed by American theorists to be applied in developing states, market-preserving federalism has always been implicitly set within political contexts in which social policy was already quite commodified. But Canada is different. First, there is a clear constitutional commitment to redistribute resources across the country (especially in s. 36), which speaks to a long-standing and formal commitment to the principle of a national social union. Second, there have been a series of generally non-justiciable yet high-profile pan-Canadian commitments to this same idea of a social, not just economic, compact among the people of Canada. Europeans simply call this solidarity. Canadians, for whatever reason, are uncomfortable with this term, though not the principle itself. From the Canada Health Act, to the 1995 *Report to Premiers*, to the Social Union Framework Agreement, and even ACCESS itself, there has been a fairly consistent attempt to articulate that this aspect of Canadian political life remains legitimate notwithstanding the rigours of international competition and the brittleness of current economic growth.

Why, then, attempt to impose an economic approach upon a context that – even according to proponents of market-preserving federalism (e.g., McKinnon 1997a) – is so ill-suited to it? One explanation may be that this is simply yet another example of the epistemological arrogance of policy scribes assuming that the only relevant outcomes are the ones they have identified. But another, more chilling, explanation is that those attempting to impose the principles of market-preserving federalism believe that the logic of the theory will itself undermine and expunge this commitment to a social union. In the end, the dynamics of market-preserving federalism will be different in Canada than they would be in other federal systems. But what remains uncertain is whether Canadian federalism will transform market-preserving federalism, or whether market-preserving federalism will transform Canadian federalism.

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A NATIONAL ENERGY STRATEGY FOR CANADA?

BRYNE PURCHASE

INTRODUCTION

In May 2012, Canada's western premiers, meeting in Edmonton, issued a statement that included the following sentence: "Western Premiers support the development of a Canadian Energy Strategy." For those of us who experienced Prime Minister Pierre Trudeau's 1980 National Energy Program (NEP) in real time, there was a certain irony even in the use of the words "national" and "energy" in the same phrase. Many in the West, principally in Alberta, had characterized Trudeau's NEP as essentially a plot by central Canadians (that is, Ontarians and Quebecers) to usurp the West's energy resource wealth.[1]

Tom Courchene (2012) has even speculated,

> It is likely that Ottawa's motivation for inserting Section 92A into the Constitution Act, 1982 was in part to make amends for the damage wrought by the NEP and in part to bring the energy patch on side in terms of the patriation [*sic*] of the Constitution. Section 92A enhances and extends the provinces' right to legislate exclusively in relation to the exploration,

[1] A Progressive Conservative government under Premier Davis in Ontario lined up clearly on the side of the federal Liberal government policy. The situation in Quebec was more complicated, but Prime Minister Trudeau and Energy, Mines and Resources minister Marc Lalonde, both Quebec-based MPs, certainly gave the impression to outsiders that Quebecers were on-side.

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

> development and management of non-renewable natural resources and forestry and the generation of electrical energy. Moreover the provision grants the provinces the right to raise money by any mode or system of taxation in relation to these resource areas. To my knowledge no other federation has anywhere near such a provincial-rights provision. In turn, no other federation is likely to be affected as much by resource-related changes of fortune. (2012, 23)

Professor Courchene is probably right about the motivation as well as the implications of the expanded constitutional affirmation of provincial resource rights. Unfortunately for the federal Liberals, however, the attempt to make amends through the Constitution did not work. In fact, the NEP was so deeply contentious a federal policy that it subsequently helped to vanquish Liberal Party domination in Ottawa. The Trudeau government was followed by two back-to-back majority governments under Prime Minister Brian Mulroney's Progressive Conservatives.[2]

But it was not just an unusual change of the federal government that happened. The NEP was not only dismantled by the new Mulroney government, it ended up dead and forever buried by the Energy Chapter of the Canada–United States Free Trade Agreement – perhaps the most defining and enduring Canadian economic policy initiative of the last 30 years. The Energy Chapter of the FTA and the subsequent North American Free Trade Agreement made it quite certain that Canadians would never again enjoy a "made in Canada" energy price, unless they were willing to provide the same terms to their US customers.

The Canada–United States Free Trade Agreement and subsequently the North American Free Trade Agreement ushered in a profoundly different vision of Canadian economic development. The new vision was now distinctly north-south, not east-west, *and* distinctly market-oriented. This was a major departure from previous federal government policy.

Even prior to the 1980 National Energy Program, Canadian national energy policy – both in the 1956 federal decision to give the green light to building the all-Canadian TransCanada natural gas pipeline and in the 1961 initiative that preserved the Canadian market west of the Ottawa Valley for high-cost Alberta crude oil – reflected a distinctly east-west orientation and an interventionist mindset.

This orientation was, in turn, totally consistent with the earlier tradition of *nation building* propounded by Sir John A. Macdonald which, among other elements, entailed an all-Canadian, east-west railroad, carrying food (just energy fit for human consumption) heading east in exchange for manufactured goods, protected by tariffs, heading west.

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[2] This required support of otherwise Separatist forces in Quebec as well.

Continental free trade was to change all that. Canadian economic development would henceforth reflect a North American perspective. And it largely succeeded. In 2010, Canada's energy exports amounted to $98 billion, 24.7 percent of Canada's total merchandise exports. Roughly 98 percent of these energy exports go to the United States. Ontario – Canada's manufacturing heartland – also became more deeply intertwined into the economy of the Great Lakes States (78 percent of Ontario exports go to the United States).

Yet now there is a call for a new national energy strategy, from the West itself! What is going on? Of course, the western premiers made it clear in their statement that they imagined the provincial premiers would be leading the national strategy development, even while each province pursued its own unique energy opportunities. The western premiers were very definitive that they envisaged federal cooperation, *not* federal leadership; although, of course, the inconvenient truth is that they cannot proceed without both.

Why have these matters risen again to the national agenda? The reason is that the economic and political circumstances are changing rapidly. As will be outlined, after almost 25 good years and increasing integration, the continental vision of free trade, at least in the energy sector, has run into some serious constraints. These constraints are largely market driven. But there are pressing political problems too. Environmental considerations, especially climate change, have become a far more important element of the political-economic landscape. First Nations have also emerged as a powerful political force to be dealt with in the development and transportation of natural resource wealth.

Will a new national energy strategy or policy take shape? And what would it look like? This chapter outlines some of the very different conceptions of a national energy strategy, examines the circumstances driving the new initiative from Western Canada, and speculates on how political-economic forces might develop from here.

WHAT'S IN A NAME?

It seems probable that the western premiers wanted simply to send a message to provincial premiers in Central and Eastern Canada, and to the prime minister, that they all shared a common interest in the ability to transport energy (via pipelines, tankers, LNG carriers, highways, railroads, or transmission lines) unimpeded by political barriers. After all, this is a central feature of any nation state. To deny free movement of goods is to call into question the whole notion of a common market – perhaps the fundamental economic benefit of nationhood.

Similarly, the premiers were reinforcing that they all shared a common purpose in the open access to foreign markets – as well as access to the troika of capital, skilled labour, and technology, much of it foreign sourced – if the huge energy megaprojects they each envision are to proceed.

But in the political marketplace, words have a life of their own. By invoking the phrase a "national energy strategy," the western premiers had inadvertently tapped into a political consciousness that also harbours far different conceptions. In fact there are at least three different core conceptions of a national energy strategy. Some individuals may find themselves espousing all three, but each has its single-minded adherents, full of passionate intensity. These core conceptions might be broadly characterized as follows:

Global market energy strategy

The global market energy strategy (GMES) is simply an extension of the continental vision of free trade to the global marketplace. But it reflects the new reality that the centre of gravity of global economic growth is rapidly shifting from the old-line industrial nations of Europe and North America to the gargantuan developing economies of Asia as well as South America. Lifestyles in these developing economies are beginning to converge on those in Western Europe and North America, requiring a vast increase in the energy consumption per capita of roughly 5 billion people.

Accordingly, rapid growth in energy demand is now taking place in the non-OECD developing countries of Asia, South and Central America, and North Africa. China, India, and Brazil, of course, tower in absolute size of population above the rest. The International Energy Agency expects that:

- "Over the next 25 years, 90% of the projected growth in global energy demand comes from non-OECD economies; China alone accounts for more than 30%, consolidating its position as the world's largest energy consumer.
- "In 2035, China consumes nearly 70% more energy than the United States, the second-largest consumer, even though, by then, per-capita energy consumption in China is still less than half the level in the United States (IEA 2011).
- "The US Energy Information Administration similarly forecasts that energy use in developing (non-OECD) countries will increase by 85 percent compared with an increase of only 18 percent for the developed (OECD) nations" (United States. Energy Information Administration 2012).

Fundamentally, the GMES rests on the presumption that the private corporations who undertake the energy resource development should decide which projects to undertake – presumably those which they forecast will maximize corporate profits. In the idealized model, private corporations take the business risks of resource development and marketing. The role of governments, on the other hand, is to facilitate these developments by undertaking a package of supportive policy initiatives.

Two of the most important initiatives are to streamline regulatory processes, especially environmental regulations, and to negotiate open access to foreign markets. Part of the process for opening foreign markets is to encourage foreign direct investment in Canada, since such investment not only brings capital and possibly technology, but also can be economically and politically useful in accessing the foreign market for the resource. The recent government-approved takeovers of Nexen Inc. by China's CNOOC, and Progress Energy Resources Corporation by Malaysia's Petronas, merely serve to illustrate the point. Changes to immigration policy and employment insurance policy are also important components in increasing access to the required labour and skills, especially in remote parts of the country.

The GMES policy approach accords very closely with the basic principles envisaged by the Western Premiers 2012 Statement. It is also, of course, not just the strategy but the actual policy being implemented by the current federal government. It was contained in the giant federal 2012 omnibus budget bills C-38 and C-45. The only difference is that Prime Minister Harper's government chose not to label the package of initiatives with what it considers the politically noxious title, "National Energy Policy."

Global environmentalist energy strategy

The global environmentalist energy strategy (GEES) might be placed at the other end of the spectrum from the GMES. Its proponents are not focused on maximizing income, either for the corporation or for the community. Insofar as they consider future income, they focus more on the concept of "sustainability." The GEES emphasizes the environmental impact on humans and other species of all energy megaprojects, whether nuclear power plants or major hydroelectric dams; in recent years its adherents have emphasized the impact of fossil fuel use on human health.

What makes the GEES truly global, however, is its current focus on carbon emissions and their contribution to global warming. Proponents insist that fossil fuels must ultimately be replaced or rendered benign (for example through carbon capture and sequestration) in their impact on the atmospheric temperature and hence on the global climate. This is a highly ambitious, even radical, agenda given that over 80 percent of the world's primary energy comes from fossil fuels, by far the preponderate source of anthropogenic carbon dioxide emissions.

When it comes to specific government policy initiatives, the proponents of GEES believe in regulation, carbon pricing, and subsidy to encourage the substitution of low-carbon-emitting energy sources and/or energy conservation initiatives. Largely they accept that private corporations have no incentive to control emissions. Therefore governments should act; but after years of broken promises, environmentalists are now fully aware that they may not.

In this instance the proponents of GEES have adopted a "starve the beast" political strategy. They do this by using existing laws or getting a new law that attempts to block two central pillars of the global market approach – unrestricted transport of the resource to market and unrestricted access to that market. If the resource cannot be transported to market or if it is denied access to that market unless it meets certain environmental standards (for example, California's low-carbon fuel standards), then this strategy effectively "strands" the resource and destroys its value to would-be developers. This political tactic, of course, directly confronts the central tenets of a "free" domestic or global market. It is, therefore, not a challenge simply to an energy resource; it is a challenge to the entire "free market" paradigm and perhaps even to the nation-state itself (as the central guarantor of free markets).

Nationalist energy strategy

Nationalist energy strategy (NES) proponents, as with GMES adherents, also focus on maximizing income, or occasionally the number of jobs or "good" jobs. But they have a specific geography in mind, typically a nation-state or a province. Government is the ultimate director of the strategy, and it usually conspires to use virtually every policy tool available – whether public or private corporations, subsides or regulations – in order to achieve its objectives.

It would be fair to say that this approach is the current strategy and policy of every provincial government in respect of its electricity sector. Electricity, for better and worse, is confined by the high costs of transmission to be a local or regional industry.[3] This technological restriction, not the Canadian Constitution, is predominantly why the production of electricity is under the firm control of provincial politicians. Typically, but not now universally, provincial electricity systems are dominated by Crown-owned corporations.[4] Foreign direct investment plays a minor role.

As a consequence, each province has used its electricity sector as an economic development tool (not to mention a regional and local development tool within the province). Each also builds on what it perceives or at least wishes to be its local resource comparative advantage. Hydroelectricity

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[3] Cost includes the political risk associated with the strenuous resistance of landowners to high-voltage transmission lines crossing their property, or to such lines anywhere in the neighbourhood of their property.

[4] The important exceptions are Alberta and increasingly Ontario.

predominates, accounting for 59.1 percent of Canada's total electricity production. In fact, Canada is the third-largest hydroelectric producer in the world, after China and Brazil. Hydroelectricity is particularly significant in British Columbia, Manitoba, Quebec, and Newfoundland-Labrador. These provinces also have water storage capacity behind large dams, which allows the hydroelectric generators to meet not only 24-7 base-load demand but also peak power demand as well. Nuclear power provides roughly 50 percent of Ontario's electricity demand.[5] Coal is the primary source of power generation in Alberta, Saskatchewan, and Nova Scotia.[6]

There is no ideological constraint on the tools or techniques used in the name of a nationalist energy strategy, but there is a clear preference for the use of locally produced resources or technologies. Local energy producers often get preferential treatment, to their considerable benefit given the largely captive local market. The most recent beneficiaries of this largesse have been local producers of "renewable energy" or "green energy." Nuclear power has been a big beneficiary as well.

Those who espouse the "nationalist" perspective on economic development retain a primary focus on jobs and income growth for the jurisdiction, not environmentalism per se. So Alberta and Saskatchewan are as avid in this regard as are British Columbia and Quebec. Indeed, one can find such true believers in every province and state, regardless of the local energy source.

NOT JUST ENERGY, OIL SANDS

It is now widely acknowledged, despite its very best and prolonged efforts at diversification and attempts to move "up the value chain," that Canada has a resource-based economy, with a currency whose value stubbornly reflects that reality. The most important of these resources is energy, and at the core of the vision of Canada as a global energy superpower are the oil sands of Alberta and Saskatchewan. Canada's production of conventional oil has peaked and is expected to slowly decline.[7] Oil sands,

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[5] There is a CANDU nuclear power generator in Quebec (due to be mothballed) as well as one struggling to come back online in New Brunswick.

[6] Alberta (47 percent), British Columbia (38 percent), and Saskatchewan (15 percent) are Canada's coal-producing provinces. Almost half of this production is exported; 80 percent of the exported coal goes to Japan (32 percent), South Korea (21 percent), and China (17 percent), and only 5 percent to the United States. British Columbia is a major exporter of both metallurgical and thermal coal, but principally metallurgical coal. Alberta also exports a significant amount of coal to Japan, South Korea, China, and also the United States.

[7] Currently, Canadian production of oil-sands oil (1.5 MMbd) slightly exceeds production of conventional crude oil (1.4 MMbd). Conventional crude production would continue a slow decline to 1.2 MMbd by 2020 and 1 MMbd by 2025. In

on the other hand, represent the hope of the future, at least for those who have a direct economic interest.

And, indeed, oil sands are a unique oil play opportunity. There is no geopolitical risk, no exploration risk, no substantial technological risk, and no risk of catastrophic accident (such as a deep-water blowout). Moreover, oil sands are potentially a gargantuan asset, with proved reserves currently estimated at approximately 170 billion barrels (with 2005 prices and technology). This compares to 4.3 billion barrels for conventional crude in Canada. The total proven reserves make Canada third in the world behind Saudi Arabia and Venezuela. But Alberta estimates put the proved reserves at 315 billion barrels, which would exceed Saudi Arabia's proved reserves. Annual oil-sands production is already set to ramp up from 1.5 MMbd to 3.0 MMbd by 2020 and 3.7 MMbd by 2025, and perhaps to 5 MMbd or more by 2030. Some of the bitumen is upgraded to synthetic oil by adding hydrogen; the rest is transported to refineries in the United States that have the capability to refine heavy oil.

Most of that type of refinery capacity is on the Gulf Coast, and there is already a pipeline bottleneck at Cushing, Oklahoma. As a result, Western Canadian Select has traded at a price discount to get pipeline space.[8] TransCanada's Keystone XL Pipeline proposal, from Hardisty, Alberta to Nederland, Texas on the Gulf Coast, is intended to remove that bottleneck.

The decision on whether Keystone XL will be allowed to proceed now rests with President Obama. While the president allowed the southern portion of the line to proceed, he deferred his decision on the northern piece until after the US presidential election in 2012. Presidential challenger Mitt Romney had declared in favour of allowing the pipeline to proceed, but President Obama did not commit. He needed the environmentalist vote to stay actively supporting him, but feared the attack of pipeline proponents on the negative implications for the economy if it was blocked. The state of the economy was, of course, the weakest aspect of the president's bid for reelection.

President Obama is deeply aware that the oil sands are high on the "kill list" of global environmental energy strategists. Many environmentalists see oil-sands development as the thin edge of a big carbon wedge (if all the potential oil is recovered and used). Canada's success in heavy oil

2010, oil production in Canada was 2.9 MMbd, of which 1.9 MMbd were exported. The industry is dominated by Alberta (72 percent), Saskatchewan (15 percent), and Newfoundland (10 percent). Newfoundland has access to ocean transport. Alberta and Saskatchewan do not. Roughly 99 percent of Canadian oil exports are by pipeline to the United States.

[8] The price differential on Western Canadian Select relative to West Texas Intermediate has ebbed and flowed over the past two years depending on the availability of transportation alternatives such as rail and the increase in US shale oil production. The price differential has eased from its most extreme level in 2012.

would also help to unlock Venezuela's equally gargantuan reserves of extra heavy oil. Combined, they represent a couple more Saudi Arabias, but with the higher carbon emissions of heavy oil. Jim Hansen, a leading climate scientist, formerly with NASA, says if oil sands are fully developed, along with coal, it is "game over" for the climate. In many ways, the oil sands are an ideal symbolic target for environmentalists, being a large source of carbon in a "rich" country. These facts make the oil sands highly vulnerable to global environmental activists.

Many consider the Keystone XL decision by the president to be a legacy issue. And the president has put everyone on notice that he plans to use all the administrative instruments available to him, including regulating coal-plant emissions, to address climate change. In respect of Keystone XL he has said the following,

> Now, I know there's been, for example, a lot of controversy surrounding the proposal to build a pipeline, the Keystone pipeline, that would carry oil from Canadian tar sands down to refineries in the Gulf. And the State Department is going through the final stages of evaluating the proposal. That's how it's always been done. But I do want to be clear: Allowing the Keystone pipeline to be built requires a finding that doing so would be in our nation's interest. And our national interest will be served only if this project does not significantly exacerbate the problem of carbon pollution. The net effects of the pipeline's impact on our climate will be absolutely critical to determining whether this project is allowed to go forward. It's relevant.[9]

But exactly what does that mean? No one, of course, knows for sure. It depends on how one views the question. Does it relate to just this one pipeline or the entire future development of oil sands? Even if only this one pipeline is at issue, no one knows what will happen to the oil sands if the Keystone XL Pipeline does not proceed. Will the bitumen simply be shipped to markets elsewhere? Will it be shipped by railroad instead of pipeline to the United States? Will the heavy oil refinery capacity in the US Gulf Coast simply be used to refine more heavy oil from Venezuela instead of Canada, with no benefit to the climate? Will the matter be revisited by a new president in a couple of years anyway? We will get what President Obama thinks is the answer to these questions only when we get his final decision on the fate of the project.

Because the oil sands are energy intensive in the production and upgrading of the bitumen – using huge amounts of natural gas, diesel fuel, and electricity generated from coal in Alberta and Saskatchewan – they are an enormous source of carbon emissions. They have very high

[9] Remarks by the President on Climate Change, June 25, 2013, http://www.whitehouse.gov/the-press-office/2013/06/25/remarks-president-climate-change.

upstream emissions compared to conventional oil (about 81 percent more than the average of US conventional oil on a "wells to tank" basis, although on a "well to wheels" basis this is moderated to about 17 percent more carbon). Nonetheless, the growth in oil-sands production is the principal reason for the recent growth in Canada's carbon emissions and the single biggest risk of failure to meet the federal government's own new post-Kyoto carbon emissions targets.

Counterpoised to this set of facts are the following considerations: oil sands are geopolitically secure to the United States and heavily invested in by US and European global oil giants. Wall Street supports the project. Even major US unions, another key constituency of the president, have come out in favour of the Keystone project.

Oil sands are important to many Canadian interests as well: they constitute an overwhelming part of the total business investment in Canada, shares in the key companies figure prominently in many Canadian pension plans, and oil-sands development is considered an important driver of Canada's future economic growth. Moreover, failure to approve the pipeline would be a personal affront to Prime Minister Harper, given his status as a Calgary MP.

One would expect, therefore, that the giant US energy lobby, the union lobby, and the Wall Street lobby, along with the military lobby concerned with geopolitical security, will figure prominently in the president's decisions. For President Obama to rebuff these powerful lobbies, not to mention Ottawa and the prime minister, should be considered highly unlikely. Nonetheless, there remains risk – I would judge a small one – of a surprise negative decision.

Strategic positioning

The market fundamentals facing Canada's energy industry – oil, gas, coal, and electricity – are dramatically changing. On the supply side, the primary reason is new technology, principally horizontal drilling and hydraulic fracturing of shale formations. The biggest story is the dramatic increase in natural gas production, with important competitive implications for gas producers as well as for coal, nuclear, and renewable energy sources. US oil production from shale formations and US offshore oil supply are also growing. This large supply increase for oil (not to mention biofuels largely from corn) has combined with lower expected demand growth for liquid fuels to produce a far more competitive North American liquid fuels market. The United States Energy Information Administration (2012) forecasts the following:

- US liquid fuels (including biofuels, NGLs, synthetic liquids) production is expected to grow from 9.69 MMbd in 2010 to 12.78 MMbd in 2035, but consumption is relatively flat (19.17 MMbd in 2010 to 20.08

MMbd in 2035). US net imports of liquid fuels therefore fall from 9.53 MMbd to 7.39 MMbd in 2025 and 7.36 MMbd in 2035.

- The United States is forecast to go from a net importer of 2.58 trillion cubic feet (tcf) of natural gas in 2010 to a net exporter of 0.84 tcf in 2025 and 1.43 tcf in 2035.
- US net electricity imports are also projected to decline over the period from 2010 to 2035 as a result of increased use of US natural gas in electricity production.

Go west to Asia

A decision by President Obama to allow the northern leg of the Keystone XL Pipeline to proceed would take the immediate pressure off oil-sands development. The bitumen that heads south will be refined in the Gulf states, and a significant portion of the refined products will be exported. But if the oil sands are to be fully exploited, the producers will need even more new and growing markets. The best current price differentials exist in Asia, and Asia represents both a rich and seemingly endless growth market. Access, by pipeline, through British Columbia and then by supertanker is the closest and least costly way to get to that market. And Asia has the required refining capacity for bitumen.

There are currently two pipeline proposals going west from Alberta: Enbridge's Northern Gateway project going through Kitimat, BC, and Kinder Morgan's expansion of its existing Trans-Mountain pipeline to the port of Vancouver, BC. These pipelines, or any other proposal, need regulatory approval before they can proceed. But even assuming regulatory approval, legal license is not "social license." And it is getting social license from the communities along the west coast that may prove the most formidable barrier to accessing the Asian market for Alberta bitumen.

In principle, environmentalists will also oppose the building of natural gas pipelines, liquefaction facilities, and the LNG ships that will carry the gas to Asian markets in Japan, South Korea, and Taiwan. But unlike the Alberta bitumen, British Columbians own most of the gas and will benefit both from infrastructure development and ongoing operations. And natural gas leaks or major ruptures or shipping accidents pose fewer risks of local damage to land or water than similar mishaps carrying raw bitumen.

The simple fact is that hosts to transportation corridors often gain very little, but are nonetheless exposed to the risk of ruptures or spills. That makes local communities along the transportation corridor the potential allies of those concerned about the larger environmental threat from global warming.

The premier of British Columbia, Christy Clark, set five conditions. Four conditions sought to ensure that (1) the project passes the province's environmental review, (2) world-leading marine oil-spill prevention and response capacity is demonstrated, (3) world-leading practices for land oil-spill prevention and response capacity are in place, (4) and First Nations opportunities and treaty rights are respected. The fifth condition raised the issue of direct payment to British Columbia for the right-of-passage.

The conditions were initially rebuffed by the Alberta premier, Alison Redford. Unfortunately, the public release of the BC conditions was crudely handled and largely done for the sake of electioneering in an imminent BC general election. Such matters are far better left to more complex and private negotiations. But it was at least an offer to negotiate. It left open the possibility of right-of-passage. The former NDP leader in British Columbia, Adrian Dix, had taken a more dogmatic position against the pipeline proposals. And a number of First Nations may also be adamantly opposed in principle and unwilling to negotiate a price of access.

Premier Clark's Liberals, however, secured a surprising victory in the BC general election of 2013. Therefore, the five principles she laid out still stand. As this chapter was being finalized, British Columbia officially expressed its opposition to the Northern Gateway pipeline project because the province's five conditions were not met. Nonetheless, interprovincial and federal-provincial discussions continue.

Energy policy, and fiscal and economic federalism

BC's fifth condition directly enmeshes Canada's energy strategies into the politics of fiscal and economic federalism, namely BC's demand for a fair sharing of the fiscal and economic benefits. This is a matter that Tom Courchene (2013) has dealt with at length in *Surplus Recycling and the Canadian Federation*.

With some danger of oversimplifying the many complex issues at play, it is instructive to focus on the two challenges that are most daunting. First, energy royalties are the exclusive constitutional prerogative of the provinces. Drawing on estimates of the Canadian Energy Research Institute (CERI), the Alberta government notes that provincial royalties from the oil sands could total $350 billion over the next 25 years.[10] So the monies at stake for Alberta's government are enormous.

However, as Courchene demonstrates, the energy provinces already have per capita revenues (after equalization) far above those of the remaining provinces. This added revenue merely accentuates the spectre of the energy provinces moving in the direction of providing tax havens

[10] http://oilsands.alberta.ca/economicinvestment.html.

and superior public goods and services – thus engaging in even more aggressive province-building.

The second challenge arises from the dominance of energy in our exports and the likelihood of exchange rate volatility playing havoc with Canada's manufacturing sector; that is, the likelihood of this sector falling prey to the Dutch disease. Given that the energy and manufacturing concentrations tend to be geographically separate, the challenge becomes even more sensitive, economically and politically.

Boadway, Coulombe, and Tremblay (this volume) provide an excellent assessment replete with options for redressing these fiscal and economic challenges to our federation, as does Tom Courchene's work cited above.

A go east policy

As noted earlier, transportation bottlenecks in the United States are already responsible for western Canadian bitumen being sold at a substantial discount in order to gain access to the Gulf Coast refineries capable of processing the heavy crude. Another option is to move western Canadian crude east in a classic "all Canadian" energy initiative. Indeed, this option is currently being proposed. Part of TransCanada's historic west-east natural gas pipeline can be converted to carry the oil. That pipeline is rapidly becoming uneconomic as a natural gas transport system because of the growing availability of cheap natural gas in north-central and eastern United States.

There is also an existing Enbridge oil pipeline between Sarnia-Nanticoke and Montreal that could be reversed to carry products further east. Eastern Canada (including parts of Ontario) is supplied by imports of about 1MMbd. These oil imports could be displaced, but it would require new oil upgrading or new refinery capacity. Ontario is also looking to maximize any benefits, perhaps in Sarnia or Nanticoke. Clearly this set of proposals fits the usual east-west pattern of energy flows. And it is possible to imagine an even larger set of integrated, national energy projects.[11]

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[11] Hydroelectric power is bottled up in Labrador and northern Quebec. The federal government has recently removed a major financial barrier to the development of hydro power in Labrador by making available loan guarantees. That is useful for Newfoundland and Labrador, but it still leaves Quebec with bottled-up hydroelectric power and adds to the competition that Hydro Quebec already faces in markets to the south. The sudden collapse of natural gas prices made combined-cycle natural gas turbines an effective competitor in base-load electricity generation. The "shale gas" bonanza has led President Obama to call the United States "the Saudi Arabia of natural gas." This is not good news for the purveyors of hydroelectric energy (or nuclear).

TransCanada Pipeline describes their project as follows:

> Called the Energy East Pipeline, the 4,500-kilometre pipeline will carry 1.1-million barrels of crude oil per day from Alberta and Saskatchewan to refineries in Eastern Canada.…
>
> While the exact route will only be determined after public and regulatory review, the planned starting point is a new tank terminal in Hardisty, Alta. Three other new terminals will be built along the pipeline's route: One in Saskatchewan, one in the Québec City area and another in the Saint John, N.B. area. The terminals in the Québec City and Saint John areas will include facilities for marine tanker loading. The project will also deliver oil to existing Québec refineries in Montréal, near Québec City and in Saint-John. New pipeline will be built in Alberta, Saskatchewan, Manitoba, Eastern Ontario, Québec and New Brunswick.[12]

These proposals promise jobs and manufacturing activity to Central and Eastern Canada. Ontario's financial sector in Toronto is supportive of continued oil-sands development, and Atlantic Canada's premiers are enthusiastic, particularly in New Brunswick. Even Quebec is reportedly on side, although perhaps predictably former premier Pauline Marois refused to join any national consensus of premiers on the matter (as did British Columbia, however). In any case, as should be expected, the

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Quebec's bottled-up hydroelectric potential might, however, find an outlet in Ontario and from there into the US Great Lakes States (currently heavily dependent on coal but also switching to cheaper natural gas). But for Quebec to find a market in Ontario would require Ontario to reconsider its big bet on nuclear generation. There are very good reasons for doing so; but what about the Ontario-based Atomic Energy of Canada, now owned by Quebec-based SNC-Lavalin? If Ontario does not build new or refurbish all of its existing CANDU capacity, then many high-paying jobs in Ontario will be lost.

This problem could be addressed by building new CANDU reactors in Alberta and Saskatchewan (the home of Canada's uranium supply), and the carbon footprint could be reduced by replacing coal with electricity. Manitoba and British Columbia have large untapped hydroelectric potential as well. They could assist Alberta and Saskatchewan in reducing carbon emissions.

Whether any of these projects are economic ultimately depends on the price put on carbon emissions. But there is very little political likelihood of a national or continental carbon-pricing regime any time soon. Notwithstanding the potential of something for everyone, Canadian energy politics is so parochial and has been so poisoned by an inflated, hypocritical rhetoric around climate change and the sharing of benefits from resource development as to make a comprehensive national strategy, and deal, highly improbable.

[12] http://www.energyeastpipeline.com/about/the-project/#sthash.sZ5YjpgF.dpuf.

prospects of major new energy projects in the East are capturing the attention and support of the nationalist energy strategy proponents, although each province will want something in return.

But environmentalists in Ontario, Quebec, and elsewhere are resisting strenuously. This, too, is to be expected. Why would bringing the bitumen east be any more acceptable to local landowners and environmentalists concerned with climate change than having it go west or south? Of course it is not.

THE NEED FOR ALLIES

The market in Eastern Canada, even if it were forthcoming, would not be sufficient to allow the full development of the oil-sands potential. The growing oil-sands production would still need to gain allies in the eastern markets of the United States or Europe, still very much dependent on oil imported from the Middle East. Environmentalists in the United States and Europe would naturally hope to foreclose these markets to oil-sands oil. Environmentalists could achieve this objective, even if the pipelines are built, if they get other states to adopt the California low-carbon emission standards. For energy security reasons, however, the success of such a strategy would at least partly depend on the availability and cost of a local energy source that could be used in the transportation sector and would meet the tough emission standards.

One possibility, of course, is plug-in electric vehicles or hybrids. But these have a long way to go to ever become the product of consumer choice, because of price and a variety of other considerations material to consumers in these states. Moreover, while the fuel supply would be low carbon in a place such as Quebec, such vehicles would simply make matters worse in the Great Lakes States, which depend heavily on coal to generate electricity.

Nonetheless, a substitute for oil in the transportation sector does exist for certain applications. Natural gas – either compressed natural gas or LNG – can be substituted very economically in long-haul trucks on designated routes (with new refuelling stations) and in urban fleets such as garbage trucks, buses, and cabs. A natural gas–powered vehicle (NGV) has 20–30 percent lower carbon dioxide emissions than a gasoline-powered vehicle, plus far less smog potential. A Honda Civic NGV already meets all California emission standards. Oil-sands production, heavily dependent on natural gas for extraction and upgrading, could never be more efficient than direct use of the natural gas in the transportation fleet.

Moreover, the use of natural gas in transport has several important advantages over any other strategy to limit the market for oil-sands oil. The shale gas bonanza has made it a relatively cheap source of energy. Shale gas is far more widely distributed in North America (in central and eastern regions), and so using this local resource would create local "good" jobs. What's more, it is a geopolitically secure source of energy (negating one of the presumed advantages of the oil sands). The excess supply of natural gas and its depressed North American price create a powerful private incentive to find new markets and new applications.

While natural gas would be embraced by the proponents of an NES, it may nonetheless be resisted by the proponents of a GEES. For some of these environmentalists, it would still be tantamount to "sleeping with the enemy," especially since some are not convinced of the emissions profile of shale gas, not to mention its dangers for groundwater contamination. Nonetheless, natural gas in transportation may become an important part of US national energy policy. President Obama has proposed numerous incentives to NGV use.

CONCLUSIONS

Tom Courchene is a practitioner of the almost lost art of political economy in the academy. And a national energy strategy is, if nothing else, an exercise in political economy, not just economics and not just politics. The proponents of any central conception of an appropriate energy strategy will need to pay attention to both the economics and the politics if they are to win the day.

A cornerstone of success for the leading contenders – the global market energy strategy and the global environmentalist energy strategy as outlined above – will be to build subnational coalitions with those who are anxious to develop their local economies and create good jobs. In that regard, all economics and politics are local, and any global ambitions by global markets strategists or environmentalists must at least appear to conform to the aspirations of the proponents of a nationalist energy strategy.

North America, unlike an economically moribund Western Europe, is extremely energy rich, to its considerable benefit. But the local energy supply is not homogeneous across all subnational jurisdictions in North America. Although fossil fuels are by far the most dominant source of energy, each subnational jurisdiction has different types of fossil energy that can compete in the production of heat and electricity or in powering transportation. There are also, of course, competing non-fossil energy sources such as solar, wind, biofuels, hydro, geothermal, or tidal energy. Hydroelectric energy plays a particularly prominent role in Newfoundland, Quebec, Manitoba, and British Columbia. Therefore I envision several competing energy strategies – with differing GHG emission profiles – emerging within the North American political space.

Given the power of regional politics in North America, it is difficult to imagine that either Washington or Ottawa will be able to dictate and enforce a broader national or continental vision (Purchase 2013). The deep political and economic divide surrounding climate change is unlikely to diminish, no matter what the outcome of the current pipeline debates. The issue at stake is the future of fossil energy use, and that is a far larger problem of political economy than the fate of any particular energy transmission project, no matter how much symbolic importance is attached to that project. Similarly, no single president will make the definitive decision on these matters.

Still, the "starve the beast" political strategy of many environmentalists is a direct affront to the entire notion of the free movement of goods within a jurisdiction and between jurisdictions. British Columbia and Quebec appear to be the key jurisdictions that might attempt to block movement in Canada. Would a federal government exert the right of eminent domain to directly override the objections of a First Nation, not to mention those of an important provincial government?

At this writing, it seems highly improbable. For many years the federal government refused to assist Newfoundland and Labrador in its dispute with Quebec over a similar issue. Still, the failure to grant access to a transportation corridor for a huge Canadian resource, one that many see as the key driver of the future economic growth of the nation, would represent an enormous failure of the federal government. Failure would certainly act to drive Alberta and Saskatchewan more deeply into the north-south axis of the fossil energy industry. And once again, as Tom Courchene has reminded us, any attempt to construct corridors for the free movement of energy will be politically perilous *unless* Ottawa acts to address the powerful challenges to fiscal federalism created by inequalities in resource revenues.

So stay tuned. This political fight will be prolonged. Accordingly, there is no certainty in all this, only questions. In the political marketplace, as Yogi says, "It's never over, till it's over."

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COURCHENE AND SOCIAL POLICY ANALYSIS: RETIREMENT INCOME REFORM AND ACTUARIAL FEDERALISM IN CANADA

Michael J. Prince

INTRODUCTION

This chapter has three aims: first, to sketch the core elements of the art and craft of Thomas Courchene's method of public policy analysis, especially in relation to social policy; second, to apply that method to recent developments in elderly benefit and pension reforms in Canada; and third, to reflect on implications and future directions of both the method of analysis and pension policy.

I select retirement income policy to examine Courchene's theory and methods of policy analysis because he has produced several thoughtful analyses of the retirement income system in Canada and has contributed many provocative ideas to pension debates (Courchene 1986, 1987, 1994, 1997; Courchene and Meredith 2012). As chair of the Ontario Economic Council during the great pension debates in the early 1980s, he sponsored a conference and commissioned numerous survey papers and background studies on elderly benefits, pensions, and retirement income reform (Conklin, Bennett, and Courchene 1984). This body of work well illustrates his long-standing interest in, and long-lasting contribution to, our knowledge and ideas about social policy and federalism in Canada. Moreover, the retirement income policy system is again on the agendas of governments as well as of seniors' groups, think tanks, and business and labour interests, and with increasing population aging in Canada, this policy field will continue to be a major concern. Recently, Courchene and

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

Meredith (2012) have remarked that "we are in a time of major transition in our retirement income system.… Indeed, what the system will look like in the next decade and beyond is still uncertain" (25). Courchene (1997) has described the retirement policy system as one of staggering dimensions: "It is essentially a cradle-to-grave issue; it embodies implicit social contracts; it is a jurisdictional quagmire and it is underpinned by every conceivable type of equity issue. There are no right answers in this area" (330).

In the course of this essay, I advance the following propositions: that Courchene's body of work reveals a distinctive approach to public policy analysis, an approach rooted in economic determinism and Canadian federalism; that Courchene's conception of social policy has evolved over the last 40 years and now expresses more sociological or communitarian aspects; that recent developments in social policy-making at both orders of government indicate a shift in the style of intergovernmental relations in this policy area from cooperative federalism to what may be called actuarial federalism; and that the retirement income subsystem of Canadian social policy is not intrinsically a system but rather a fragmented network of programs experienced quite differently by various groups of individuals and families. Thus, the real meaning of retirement income policy is established by people's interactions, negotiations, and utilization of specific tax and transfer programs in both public and private domains.

COURCHENE'S THEORETICAL PERSPECTIVE ON POLICY ANALYSIS

With an interest not just in understanding policy but also in changing it, Courchene has researched and published broadly in the fields of academic and applied social policy analysis. Key elements of Courchene's theoretical stance on understanding public affairs and doing policy analysis are outlined in Figure 1. At root, his theoretical approach to analyzing public affairs places strong weight on the structural determinants of policy-making and on the contextual circumstances in which policy actors, interest groups, and citizens find themselves. Structural determinants of social policy highlighted by Courchene include the political economy of markets, the logic of globalization, and fiscal constraints. He sees the big trends, and analyzes macro-level global and continental contexts, from an economic viewpoint. Market forces and economic developments are not the only drivers of social change and public issues, of course, but in Courchene's work they are certainly treated as the dominant explanatory variables. Under this economic determinist approach, "the design of social programs may have to be related to the needs of the economy," and so these programs must be reformed to accommodate the changing requirements for flexibility, adjustment, and productivity in the marketplace (Courchene 1986, 115). Given the economic determinism of

Courchene's work (for specific examples see Courchene 1980 and 1995), it is not unexpected that he devotes comparatively little attention to questions of exclusion and marginalization, the politics of community identities beyond regionalism, and matters of social justice.

In his view, the Canadian state and other societal institutions have a bounded capacity for action to be sure: the constraints shift in their sources (fiscal, economic, constitutional, policy legacies) and their intensities, making state capacity a fluid and dynamic quality (Courchene 1987, 1994, 2012). By no means are the participants in Courchene's analytical approach simply rational actors of economic theory; far from it, they comprise a mélange of vested interests, actors with partisan or ideological biases and institutional preferences. At the same time, while he occasionally discusses values and goals, he is less apt to use meaning systems of norms or cultural beliefs as explanations of public issues or decision choices.

Placed within this macro context of structural determinants, Courchene tends to assess social policy at a meso or middle range of theory. As he explains, "At the most basic levels Canadians may well associate social policy with the design and delivery of specific programs.… Yet, once one scratches the financial and analytical surface of these programs, the linkages become very apparent" (1994, 3). Rather than focus on the specifics of particular programs, Courchene (1994) analyzes "the general structure of these programs and their interface with related programs" (131). When examining reform options across policy subsystems, he considers how these options might "form a consistent social policy system" (274). Elsewhere, on the importance of looking at policy subsystems, he has written: "What matters to individuals or families that have to rely on the social policy network is how the system of programs affects their well-being or behaviour" (1987, 24). His approach to social policy analysis, therefore, directs our attention to consider how the various tax measures and transfer programs in a given policy subsystem – at the federal and provincial levels as well as in the private and public sectors – interact to shape the adequacy, efficiency, and equity of support for different groups in society.

One drawback to this otherwise laudable systems approach to social policy analysis is that it downplays the political significance of popular symbolism surrounding individual programs such as universal income benefits or universal public health care. Courchene (1987, 24) has viewed universality-selectivity debates in Canadian social policy as "essentially sterile," mostly because such debates concentrate on specific programs rather than on the interaction of related programs in a policy subsystem. He predicted in the late 1980s that "some programs are almost certain to remain universal," more because of administrative efficiency than "any inherent virtue in universality" (1987, 25). A wider view of universality, however, sees it not just as an efficient transfer mechanism but as a significant governance arrangement relevant to issues of social inclusion and cohesion, nation-building and national unity, horizontal equity, societal recognition and citizenship, and the practices of electoral campaigns and party politics (Rice and Prince 2013).

FIGURE 1
Courchene's theoretical stance on policy analysis

- Structural determinants of social policy: political economy of markets, the logic of globalization, fiscal constraints
- Some autonomy of the Canadian state
- Macro level of analysis of context and institutions from an economic viewpoint
- Meso level of analysis of policy subsystems
- Trade-offs among values and objectives

Another notable feature of Courchene's theoretical approach to policy analysis is his stress on the inevitable trade-offs among values and objectives. All social policy decisions, he notes, involve general trade-offs in the short term and also in the longer run. He emphasizes three sets of trade-offs: equity/security/entitlement versus efficiency/adjustment; centralization versus decentralization/regional preferences; and public sector versus private sector participation, decision structures, and processes. There may be others, he implies (see, for example, Courchene 1980, 567), but this "trilogy of trade-offs" appears to him to be especially significant in the context of Canadian liberal market capitalism, divergent regionalism, and social welfare federalism. "The real social policy debate," he observes, "focuses not on the principles and objectives themselves but rather on the trade-offs among the objectives" (1987, 14). It is this bundle of cherished values and worthy objectives, which simultaneously operates within the political economy and larger society, that policy reformers and program designers must address, and they must do so in terms of the actual combination of objectives at the program and subsystem levels of social policy.

Courchene's methods of doing policy analysis

In turn, Courchene's methods of doing policy analysis encompass several characteristic practices. His style of reasoning in policy research is multidimensional, embracing elements of normative, empirical, historical, legal-constitutional, and comparative modes of thinking. His interests lie firmly within the country and times in which he lives, locating pressing topical issues of economic change and social development within "the federal condition" in Canada (Smiley 1987). His core questions include: What is the nature of our market economy in Canada? How do political economy, social policy, and the federation interact with each other? How can we understand our existing array of public policies and programs in order then to effectively change or reform them? "It is astonishing," Keynes (1936) remarked, "what foolish things one can temporarily believe if one thinks too long alone, particularly in economics" (vii). For Tom Courchene, if he has held foolish beliefs, it has not been from thinking alone! He is attuned to intellectual trends and ideological currents as well as to policy origins and legacies and to political coalitions with their attendant pushes and pulls for change or for stability.

Unlike others from the disciplinary world of *ceteris paribus*, Courchene relishes the complexities of layered and fluid contexts in his work, addressing divisions of powers and demographic trends along with details of economic policies and fiscal federalism. He has stated that "history, culture, politics and the Constitution, as well as economics, have co-mingled to produce the status quo with respect to various policy areas" (Courchene 1986, 14). No mere academic scribbler, he continually consults with, and is consulted by academic colleagues and government officials along with journalists. He has been genuinely open to new ideas and new theories in economics and political studies, blending them into his own lines of inquiry, declaring his own assumptions, and remaining sensitive to critiques of his work (Courchene 1994, 322-23).[1] Throughout, his core aim has been to emphasize the importance of an economic way of thinking to analyzing issues and to making social policy in Canada.

On the matter of what social policy reforms ought to look like, Courchene has been more an incrementalist than a transformationist. He tends to advocate moderate changes over time – in keeping with prevailing social values of Canadians and in line with underlying economic market realities – rather than radical shifts. "Radical surgery is not an answer that Canadians will accept, nor is it necessary" (Courchene 1986, 110). Instead, he is interested in reforms that are politically feasible and economically viable, and he pays corresponding attention to both the *opportunity costs* of any given reform – the options foregone and possibly precluded by a specific decision – and the *windows of opportunity* for changes or new initiatives, whether breakthroughs in thinking by one level of government or the other or collaboratively in the intergovernmental sphere (Courchene 1995). The preferred direction is a series of successive changes in policies over the medium term, within "the generally accepted norms of equity" in Canadian society, that enhance individual initiative

[1] To again quote Keynes, "In the field of economic and political philosophy there are not many who are influenced by new theories after they are twenty-five or thirty years of age" (1936, 383-84). Courchene is among the few who, over his career, has welcomed and applied in his own way new theories and concepts in his scholarship.

and economic incentives in social programs. Of any particular reform or proposal he asks, How does this announcement relate to ongoing developments, to the "trends associated with the status quo" (Courchene 1995, 103) in this policy area? This approach enables Courchene to then interpret the scale and novelty of any reform idea or actual policy decision, and thus to ascertain something of the political implications of the change as well.

Courchene's conceptions of Canadian social policy

A self-described "student of the evolution of Social Canada" (Courchene 1994, 322), Courchene has likewise undergone an evolution in his thinking on social policy and its role in the country. Accordingly, a chronological overview of Courchene's view on Canadian social policy in relation to some of his major works over the decades is given in Figure 2. It shows how Courchene's understanding of social policy changed over time both generally in conceptual terms and more specifically in national terms. His conception of social policy has become more complex and more Canadian, with more on emphasis on "the social" and not just on the policy. His conception has also become more sociological, shifting from an emphasis on private wants to public rights, and from individuals and families to large collectivities and the political community. In a 1980 article, he observed that "in our affluent society it is more appropriate to focus on consumption as satisfying 'wants' rather than needs" (560). In that same article he described social policy as state intervention in modern economies; such intervention represented an institutionalized source of increased security and protection that often injected rigidities into the market system. In subsequent publications, he adopted a program-oriented approach to examining Canadian social policy, a view which then widened to a consideration of policy subsystems or bundles of related social programs. He came to view Canadian social policy as comprising four separate yet interrelated subsystems, one of which is retirement income policy (Courchene 1987, 1994), an analytic construct that can be traced back at least to the 1943 Marsh Report on social security in Canada.

Reflecting his openness to the ideas and issues of the day, around the time of the Charlottetown Accord on constitutional reform Courchene (1995, 90) began making reference in his writings to social Canada and the social rights of citizens, asserting that we have less than a "full-blown internal social union" in the portability of skills, trades, and training certification and less than "a meaningful Canadian social union" in health and social services. Acknowledging that social policy can have important integrative effects, Courchene (1994) compared social programs to indispensable glue or the modern-day national railway; social programs were "our east-west social contract" (3) that bind people together as a sharing community of citizens. The Equalization program is a prominent example of this "east-west sharing commitment" (Courchene 1998, 233). Courchene (2012) has travelled some distance from viewing social policy as expectations of entitlements to satisfy private consumption wants to social rights of Canadian citizenship.

FIGURE 2
Courchene's expanding notions of social policy

- Human consumption and satisfaction of private wants (1980)
- Institutionalized sources of state-based protection and security (1980)
- Public programs and interventions (1987)
- Policy subsystems that comprise the social policy network or social envelope (1987, 1994)
- Indispensable "glue" that binds the nation, social policy railway (1990s)
- Rights of Canadian citizenship (2000s)

This shift in Courhene's thinking underlines a point noted earlier: Courchene (1994, 2012) continues to believe that governments in Canada, even in the present age of globalization, retain a meaningful degree of autonomy, a practical capacity for making policy choices and managing trade-offs among numerous values and objectives. While I recognize that citizenship as a status of membership in the political community is not a fixed concept but always a developing institution (Prince 2009), Courchene has left unspecified what a "full-blown social union" for Canadians would include and what "rights on the social policy front … ought to be inherent in Canadian s citizenship" (Courchene 1995, 6 and 65). In a recent monograph, however, he has expressed concern that aspects of the "open federalism" approach espoused by the Harper government could hamper efforts to adequately address our socioeconomic future (Courchene 2012, 32).

HARPER-FLAHERTY ELDERLY BENEFIT AND PENSION REFORMS

From 2006 to 2013, the minority and majority Harper governments have introduced a number of measures dealing with elderly benefits for current seniors as well as pension reforms that concern both current and future seniors. The main changes are summarized in Figure 3.

Several changes relate to offering tax relief to current seniors. For example, the amount of income eligible for the Pension Income Credit doubled in 2006 to $2,000 from $1,000; pension income splitting began in 2007 allowing Canadian residents to allocate up to one-half of eligible

FIGURE 3
Conservative government elderly benefit and pension reforms, 2006–2013

- Tax relief for current seniors
- Pension Income Credit
- Pension income splitting
- Age Credit
- Federal regulated private pensions
- Targeted increase to Guaranteed Income Supplement (GIS)
- Minor changes to Canada Pension Plan
- New Pooled Registered Pension Plan (PRPP)
- Raising eligibility age for Old Age Security/GIS and Allowance
- Allowing to voluntarily defer OAS pension beyond age 65, for up to five years

pension income to their resident spouse or common-law partner; and the Age Credit amount increased in 2006 and again in 2009, removing a number of low-income seniors from the federal tax rolls. Responding to the financial and economic crises of 2008–10 and the aftermath, the Harper government strengthened various rules on federally regulated private pensions aimed at stabilizing and modernizing pension arrangements. In 2009 and again in 2011, changes to the legislative and regulatory framework for private pension plans under federal jurisdiction and subject to the Pension Benefits Standards Act, 1985, sought to enhance protection and security of these plans. Under the federal Income Tax Act, which applies to both federally and provincially defined-benefit plans, the pension surplus threshold increased from 10 percent to 25 percent.

In March 2011, with a federal election hanging in the air, the Harper Conservatives promised to increase the Guaranteed Income Supplement (GIS) for some low-income seniors, though to not all seniors in restricted financial circumstances. After the May 2011 election and the return of a Harper government, the GIS increase was enacted.

With respect to the Canada Pension Plan (CPP), at the 2006 triennial financial review of the plan, federal, provincial, and territorial (FPT) ministers of finance confirmed that it was financially sound and that the 9.9 percent contribution rate was sufficient to sustain the plan well into the future. At that meeting, the finance ministers agreed upon a few changes to certain aspects of the plan. One was a revision to the CPP disability contributory requirements for plan members with 25 years or more of contributions (Prince 2010); the other change was putting into effect the requirement to fully fund any future CPP benefit enhancements. Further modest changes came out of the next triennial review in 2009. The changes aim to encourage longer participation in the labour force by older Canadians by making retiring later than at age 65 more financially beneficial under the CPP and retiring early, between the ages of 60 and 64, less financially attractive than heretofore under the plan. These changes are phasing in over five years from 2012 to 2016.[2]

The Pooled Registered Pension Plan (PRPP) is a new initiative agreed to by FPT ministers of finance in December 2010. The Pooled Registered Pension Plans Act received royal assent in June 2012, establishing a federal framework law for the establishment of new defined-contributions pension plans for workers in small- and medium-sized firms without occupational plans. Full implementation of the plan requires provinces to adopt their own PRPP legislation to cover firms and workers within the legislative authority of provincial governments, a process that conceivably could take a number of years and yield variations in the specific terms and conditions of the plan.

With respect to the Old Age Security (OAS) program, there are three patterns of changes. One is taking away OAS program benefits from particular groups of seniors: in 2007 from a small group of immigrant seniors (Prince 2010); in 2010 from incarcerated seniors; and in the decision in 2012, from future seniors aged 65 and 66. The age of eligibility for OAS and GIS benefits is to gradually increase from 65 to 67 starting in 2023, affecting anyone who is 54 years of age or older as of 31 March 2012.[3] In the short run, while these actions are more symbolic than substantive expenditure decisions, the Harper Conservatives are conveying a message of tightening the OAS program and of elaborating upon a distinction between deserving and not deserving seniors (Prince 2013). A second pattern of change in elderly benefits is selective increases to low-income seniors through changes to the GIS: in 2008 allowing seniors with low incomes in receipt of the GIS who are in gainful employment to retain more of their benefits; and, as noted earlier, in 2011 adding a top-up of

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[2] By 2016, CPP will pay an additional 0.7 percent per month in benefits to those persons who begin to take their CPP retirement pensions after their 65th birthday. Under the rules before this change, the premium for later retirees (age 66 to 70) was 0.5 percent per month. Waiting the full extra five years to age 70 will now represent, by 2016, an additional 42 percent increase in a person's CPP retirement pension. On the other hand, persons who draw their CPP pensions early between the ages of 60 to 64 will see the reduction rate rise from 0.5 percent per month to 0.6 percent per month. For a person in 2016 who takes the CPP retirement at age 60, this will mean a 36 percent reduction in CPP retirement benefits compared to what they would receive if they waited until age 65.

[3] In addition, the age at which the Allowance and the Allowance for the Survivor, two smaller programs that are part of the overall OAS program, will be available is to gradually increase from 60–64 to 62–66, starting in 2023, affecting anyone who is 49 years or older as of 31 March 2012. At present, the Allowance is for aged 60 to 64 spouses or common-law partners of GIS pensioners, and the Allowance for the Survivor is for aged 60 to 64 widowed spouses or common-law partners of pensioners.

benefits to some GIS pensioners. The third pattern is to encourage longer labour force attachment among potential OAS recipients by allowing individuals to voluntarily defer OAS pension beyond age 65, for up to five years, resulting in a higher annual pension.

A Courcheneian interpretation of these policy reforms

Taking a Courcheneian look at the Harper-Flaherty elderly benefit and pension policy reforms would, I suggest, include observations regarding the context of this policy subsystem, endorsements of some specific reforms, criticisms of other policy decisions, and questions outstanding about the direction of retirement income policy in Canada.

In situating these changes within a socioeconomic context, we need to identify several trends and developments that pose challenges and risks to Canadians in terms of their retirement income security. These economic trends and social risks most certainly include the shift by many companies across Canada from defined benefit to defined contribution plans, the declining coverage of workers by registered occupational pension plans, the delayed start to savings by many younger people due to student debts and the recent economic recession, and the pending era of budgetary austerity that looms over Canadians (Doern, Maslove, and Prince 2013). This context also includes "volatile stock markets and low interest rates," making "Canadians feel vulnerable about their retirement" (Canadian Press 2012). Furthermore, a Courcheneian analysis would ask the following kinds of questions: Who are the main public and private players in the retirement income policy subsystem? What do changes mean in terms of program interactions within the overall retirement income policy subsystem? What tensions or trade-off s are there among policy objectives and social values? Are reforms more effective or equitable than previous arrangements? What are the implications of changes for current and future seniors by income levels? How do the changes affect social cohesion between younger and older generations? What are the opportunity costs of the actual reform agenda of the Harper Conservatives? For instance, has as an enhancement to the CPP been precluded by the PRPP and other policy decisions? Overall, Courchene would ask, what is the national interest in this policy area in looking ahead?

In addition to the core aspects of the retirement income system outlined in Figure 3, the Courchene approach reminds us to consider the six provincial and two territorial income supplements for the elderly as well as other provincial policies on the edges of this subsystem such as drug programs, housing and transit subsidies, and other tax credits dealing with property taxation among other matters; private sector concessions to the elderly; and private wealth accumulation. We have here the classic big picture approach of Courchene, which exceeds the conventional discourse on what is retirement income policy, although he challenges policy analysts and governments to take these other provincial and private resource flows into account somehow.

Most likely Courchene would endorse the regulatory measures as prudent in offering better security against certain risks for certain pension plan members, support the selective increase to the GIS for seniors, and view the federal PRPP platform as welcome state intervention offering some additional voluntary-based private sector provision and individual self-reliance via cooperative federalism. He would possibly offer advice to provincial policy-makers to encourage them to ensure, through a process of horizontal or "bottom-up integration," that the PRPP becomes a national program even while recognizing that by itself it is an insufficient response to the problem of low coverage by workers in the private sector across the country (Courchene and Meredith 2012, 23). On the targeted tax relief to seniors, which has been a notable feature of Conservative elderly policy-making, Courchene would question the necessity and the equity of pension income splitting as an overly generous measure that has increased the number of seniors claiming the Pension Income Credit and consequently increased the amount of federal revenues forgone by several hundred million each taxation year. On raising the age eligibility for OAS and other federal elderly benefit programs, Courchene would be sympathetic to the move as an appropriate reform (Courchene 1994, 33) and would acknowledge the transition time as an adequate period of notice and adjustment for younger Canadians. However, Courchene would appreciate that delaying eligibility to OAS and GIS for two years will have cost implications for provincial and household budgets in a host of health, income support, and social services. Federal changes to elderly benefit programs will effectively pass off costs to the other levels of government, provincial as well as municipal, for many seniors aged 65 and 66 (Courchene and Meredith 2012, 24). At the same time, the impact of the age change to the GIS for low-income seniors is a concern in terms of the fairness and adequacy of public programs for seniors most in need. Program changes that encourage greater labour force participation would be a positive step too in the context of an aging population, although the OAS program "is not well suited to effect broad changes in labour marker behaviour" especially for middle- and upper-income Canadians (Courchene and Meredith 2012, 23). Allowing individuals to voluntarily defer OAS pension beyond age 65, for up to five years, is seen as providing "a marginal bonus to workers" who can do so (Courchene and Meredith 2012, 23).

A policy system or a series of program bundles?

Going beyond Courchene's line of inquiry, the question must be asked: Is there really such a thing as a retirement income policy subsystem? In actuality, is there, as he claims (Courchene 1987, 1994, 1997), a coherent set of interrelated programs for most Canadians? Do the majority of individuals and households across the age spectrum and socioeconomic range experience a structure of interrelated retirement income programs? While there may be an overall system cumulatively in program terms and conceptually in analytic terms, the evidence is clear that citizens and residents of Canada have varied connections to elderly benefit transfers and tax measures as well as to other retirement savings plans.

Access to public programs depends partly on residency requirements, income levels, and the provincial jurisdiction in which one lives. Eligibility for social insurance programs like the CPP and QPP depend on whether an individual is in the labour force (employed or self-employed), the levels of contributions made, and his or her overall work history. Coverage by an occupational pension plan depends largely on whether a person works in the public sector or the private sector and, in the private sector, partly on the size of the firm and whether it has a unionized workforce. As Sharma (2012, 41) comments, "A person's economic condition in old age is related to the economic position during that person's working life. We know that every society is economically stratified because people perform different roles during their working years and earn different incomes and, hence, accumulate different levels of assets." Thus, in Canada, citizens and residents have differential relationships with the overall retirement income system. Some seniors depend almost entirely on the federal OAS and GIS programs, a small minority obtains income from employment and/or RRSPs, while the majority enjoys income from investments and private pensions. The lower the income quintile, the more important are the public programs to a senior. Seniors with higher incomes rely more on work pensions, employment, and investments (Banting and Boadway 1997).

A down-to-earth perspective of retirement income policy, then, sees different groups of people accessing and using different bundles of tax and transfer programs, private pensions and savings plans, and personal assets. There are, in other words, multiple systems of retirement income policy, not one overall system. And these systematic differences matter for personal security, attitudes toward specific programs, and the political interests of Canadians toward tax or transfer measures.

From administrative to actuarial federalism

How Canadian federalism operates in the retirement policy area is noteworthy and has been changing. Courchene and Meredith (2012) suggest that "the contours of the current pension debate are also significantly influenced by the state of intergovernmental relations more generally" (25). Arguably, the core political institution today for pension policy-making is the FPT ministers of finance, along with their central agency officials and hired consultants. These actors represent a relative but significant shift from the 1960s, 1970s, and into the 1980s when ministers of welfare and social services and their departmental officials played essential roles in the development, implementation, and evaluation of public pension and retirement income policies. In the recent Harper-Flaherty processes, the prime minister and the finance minister are the dominant state actors. A similar shift away from social service departments to treasury portfolios has taken place in the provinces. The declining role and influence of social policy departments of government commenced during the mid-1980s negotiations on the CPP. As contributions and funding became the pre-eminent issues, the role of finance departments grew and those of social departments declined. The nature of intergovernmental relations on the CPP (and most recently on the PRPP) indicates a shift away from an administrative or functional approach, which operated in the 1960s into the 1980s, toward what I call actuarial federalism.

Actuarial federalism is a variation of executive federalism; the latter refers to "a system of government which is executive dominated and within which a large number of important public issues are debated and resolved through the ongoing interactions among governments" (Smiley 1987, 83). In the case of actuarial federalism, interactions between elected and appointed officials of the two orders of government have specific characteristics. The policy focus concerns financial activities and issues regarding the solvency of occupational plans, investment returns, contribution rates, and sustainability along with demographic forecasts of worker-dependency ratios and life expectancies. Key governmental actors are finance ministers and their officials supported by the Office of the Chief Actuary; the House of Commons Committee on Finance; the Senate Committee on Banking, Trade and Commerce; and the triennial review process of the CPP, the CPP Investment Board. Non-governmental actors include institutes of actuaries, policy institutes and think tanks, investment groups, life and health insurance companies, banks and trust companies, and pension fund managers. As with executive federalism more generally, this actuarial approach to intergovernmental relations has democratic shortcomings that include governmental secrecy, restricted space for public participation, and little meaningful input by the legislature. In this respect, federalism itself may be a contributing cause of the low level of financial literacy by Canadians about retirement planning and saving. As well, implications of actuarial federalism for retirement policy include a narrowing of the debate with a greater emphasis on technical considerations and relatively less on social considerations – a further fiscalization of policy discourse (Rice and Prince 2013).

CONCLUDING REFFLECTIONS

Courchene's style of analysis is to describe and examine public policy and political economy and the relations between them within the Canadian federation. In his social policy analysis work, whether seen as a market populist, a progressive conservative, or an eclectic scholar, Courchene is typically a modernist scrutinizing the recent past and present to better understand it and thus to introduce changes to improve the status quo. On the issue of an aging population and retirement income, he demonstrates a thoughtful perspective as an applied optimist as well as a self-styled market populist (Courchene 2012).[4] While acknowledging there are policy challenges associated with an aging population, he rejects the belief that "the elderly are a 'burden' that we must somehow accommodate and minimize" (Courchene 1997, 312). He points out that a number of "significant policy successes in relation to the golden years" in recent generations relate to improved health outcomes and increased life expectancy rates along with reduced poverty levels among older Canadians. He reminds demographic pessimists who take a burden view that the elderly are asset owners, taxpayers, and economic contributors to Canadian society; indeed, the elderly are an invaluable societal benefit (Courchene 1997, 314).

The Harper government's general preferences on retirement income policy have been to promote, through tax and regulatory measures, the role of personal savings, the private financial sector, and the workplace as suppliers of pensions, and to ensure the solvency and transparency of private pension plans under federal jurisdiction. In gauging elderly benefit and pension reforms by the Harper Conservatives against Courchene's expressed notions of social policy, a number of recent reforms via tax measures and occupational plans clearly reflect social policy as the satisfaction of private wants. Less certain is whether the Harper-Flaherty reforms meet policy notions of social bonding between young and old or of retirement income security as a general right of social citizenship for Canadians. Generous arrangements for pension income splitting and related tax expenditures for registered pension plans and registered retirement savings plans magnify the polarization of market income generated by globalization and the knowledge-based economy (Courchene 1997, 324-25).

While Courchene (1987) has said that social policy and economic policy are "a two-way street: initiatives on the economic front must take account of the social policy context" (xviii), much of his analysis has been in one direction on this two-way street, with a strong focus on integrating social policy into economic and fiscal policies. Courchene's perspective starts from the totality of political economy, with social policy secondary to the assumed more primary imperatives of the market. Policy analysts who are not such enthusiastic market populists take a more critical view of the

[4] Courchene (2012) describes his market populist approach as "essentially a market perspective complemented by a belief in a generous social envelope" (vi).

political economy, giving more emphasis to market failures or inherent limitations in resource allocations, to the asymmetries in power relations of economic actors and institutions, and to the social and cultural determinants of economic activities. There is a need to examine more consistently and fully the "traffic" in the other direction of this two-way street of social and economic developments. Such analysis would include attention in the meso and micro levels of policy analysis to the place of personal experiences of human agency, community networks, and social movements all intertwined with various relations of power, knowledge, and resistance; to the interplay of personal troubles, public issues, and policy practices within social structures and processes; and to the shifting nature of values and meaning systems, and thus symbolic resources as well as material ones, in policy context and program content (Albanese 2010; Olsen 2002).

Although the core social values of Canadians are frequently taken as given and treated as background in much public policy analysis, the possibility of changes in and contestations over the meaning of any particular value, and the reality of variations in the ranking of multiple values, all deserve deeper consideration by students of policy analysis and public affairs.[5] Building on Courchene's interest in sociodemographic trends and challenges for decision-making, policy analysis should devote more attention to matters of gender, race and ethnicity, and disability among other social dimensions of the inequalities and pluralities of Canadian life (Rice and Prince 2013).

Yet another future line of inquiry suggested by Courchene concerns the role of rule-making and regulatory processes in governance and in federalism. Many years ago, Courchene (1980) suggested that "the real battle over the future role of government and, therefore, the future role of markets, will be fought on the regulation front" (563). He took an expansive view of regulation as encompassing economic, environmental, moral, and social domains of modern life as well as a balanced view in recognizing that regulation can have both positive and negative aspects for different interests, for example, consumer groups and business

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[5] Patrizia Albanese (2010, xvii) writes, "Our exceptionally high child poverty rates send out the messages that we do not care; that our perception of ourselves as Canadians is not in line with reality; and that Canadian 'values' do not include social justice, fairness, inclusion, co-operation, and equality." Even if we reject Albanese's claim and instead contend that these are indeed Canadian values – and they certainly appear often enough in public discourse and political speeches – we can also recognize that Canadian values include other principles and standards as well, such as competitiveness, affordability, charity, self-responsibility and the stigma of defects and failures, economic development, and environmental protection. In short, social policy analysts need to take a critical approach to the role and nature of biases and values in politics and governance.

enterprises. At a time of intense deregulation rhetoric and some policy action in North America and elsewhere, Courchene (1980) predicted "that regulation is protection and the potential exists for a significant increase in regulation" (564). In recent rounds of pension reform, both at the federal and provincial levels, there has been increased regulation of pension plans, especially plans in the private sector, designed to bolster protection by strengthening pension rights and responsibilities.

In one of his characteristic comments *en passant*, Courchene remarked that "it may not be too far-fetched to view federalism itself as a regulatory process" (1980, 573). With some exceptions in the literature, this intriguing remark remains largely unexplored in the social policy field. Amid perennial calls for national strategies on myriad issues, what do we really know about the working practices and consequences of the regulatory attributes of federalism for social policy? In retirement income policy, the provinces possess decisive powers that overall produce a mix of harmonization on certain pension matters and variation on others. In Canadian federalism and intergovernmental relations more broadly lie a basically uncharted world of the regulatory, deregulatory, and reregulatory aspects of accords, agreements, grants and contributions, programs, multilateral frameworks, national strategies, and transfer payments. A federal role does not necessarily mean a national approach, nor do national standards mean uniformity in social programming, nor does provincial action alone address a major issue such as pension reform and a major constituency such as the elderly. Recently, with the Harper government's laissez-faire approach to social policy under areas of provincial responsibility, Courchene (2012) has expressed concerns about the absence of federal leadership: "The new reality is that the policy areas that are increasingly vital to our socio-economic future – and that are therefore in the national interest – tend to fall within provincial jurisdiction. If Canada is to prosper in the face of this divide between national interest and provincial jurisdiction, aspects of open federalism must be rethought" (32). Along with other values, the federal principle is a central one in doing social policy analysis in the Canadian context. Work remains, as always, to join our understandings of the federal principle with our notions of citizenship, and to continue the debate on what goods and services should be available to residents, young and old, and on what terms and conditions in our political communities.

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INFLUENCING PUBLIC POLICY FROM OUTSIDE THE BOX: COURCHENE AND REGIONAL DEVELOPMENT

DONALD J. SAVOIE

On the eve of the 37th Premiers' Conference in Jasper, on August 21–23, 1996, the Ontario government released a report on social policy that had been prepared by Tom Courchene. Titled "ACCESS: A Convention on the Canadian Economic and Social Systems,"[1] this report recommended that the provinces assume greater responsibility for the management of some key economic and social programs. The premiers had gathered on the train that would take them from Edmonton to Jasper and on the train ride, they discussed the report. Later, Brian Tobin, premier of Newfoundland and Labrador, was quoted by the press as claiming that he and his fellow premiers from other have-not provinces "threw Courchene from the train."[2]

It is, of course, one thing to provide a catchy quote for the media to pounce on, but quite another matter to dismiss Courchene's ideas. This has been particularly true in the field of regional economic development. Courchene published an article on the issue in 1981 that unnerved a good number of policy-makers in the regional development field in Ottawa. I

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[1] This paper appears as an appendix to Lazar (1997).

[2] See, among others, "Premiers Meet – and Bicker," *The Canadian Encyclopedia*, an article reproduced by *MacLean's*, 2 September 1996, www.thecanadian encyclopedia.com.

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

can think of no other article that had such a seminal impact on policy-makers, and its influence is still being felt to this day. In it, Courchene (1981) argued that the government of Canada's approach to regional economic development was fundamentally flawed. "We see disparity out there," he wrote, "and we rush to remove it with one set of funds or another, rather than letting it adjust itself on its own" (515). This approach, he argued, was creating a dependency on federal government programs and transfers among provincial governments and individuals.

This chapter looks to history to trace the evolution of Canada's regional economic development policy and assesses Courchene's impact on its development. Courchene was the first to bring a neoclassical perspective to Canada's regional development efforts. His work forced Ottawa's policy-makers, however reluctantly for some, to go back to the drawing board and justify or rethink current approaches to regional development.

Courchene's contributions to the public policy literature extend far beyond regional economic development. However, there is a common thread that runs through Courchene's work on Canadian federalism, monetary policy, equalization and other federal transfers, and regional economic development. Courchene brings a level of integrity to his scholarship and an ability to challenge us to defend long-standing positions. He never hesitates to engage in public debates and to challenge Canadians and their political leaders to think about, explain, and defend public policy positions. His contribution to Canadian public policy over the past 40 years is unparalleled and his commitment to Canada is heartfelt.

IN THE BEGINNING THERE WAS NATIONAL POLICY

I marvel at the inability of many observers of Canadian politics and public policy to view the world from anything except a simplistic or present-day perspective. History to them does not appear to be relevant: only the here and now counts. If a region is confronting economic challenges, it is told to forget the past and that its citizens should simply pull themselves up by their bootstraps and get on with promoting economic development.

To many neo-conservatives, Ottawa's regional development efforts were and are misguided, designed by self-serving politicians out to win votes and by bureaucrats out to maximize their budgets. Tom Kent put it well when he observed that "the idea of regional development was a rather improper one that some otherwise quite reasonable politicians brought in like a baby on a doorstep from an election campaign" (Canada 1973).

The reasons for Canada's uneven economic development are varied. One that stands high on the list was and remains the inability of the federal government to shape national economic policy to accommodate regional economic circumstances. The National Policy (circa 1978) was designed to promote Canada's manufacturing sector and, in doing so, to favour the Windsor–Quebec City corridor. Tariffs were both a matter of government revenues and protection. Canadian manufacturers argued that the domestic market should be reserved for them, given the failure to achieve lasting reciprocal trade relations with the United States. Ottawa agreed, since it had

> become apparent that a more rapid rate of industrialization was essential if progress was to be made with plans for a better balanced, more diversified and more tightly integrated economic development. Without a strong industrial base, there could be little hope of lessening Canada's dependence on external conditions for prosperity. (Muise 1993, 39)

The National Policy, however, offered precious little to the Maritime provinces – it emphasized an east-west continental economy and, by ricochet, it protected emerging central Canadian producers. It meant that Maritimers would have to import their manufactured goods from Montreal and southern Ontario or pay duties of 50 percent in some instances to import goods from traditional sources such as England.

Over time, economic protectionism and the National Policy forced producers in the Maritimes to ship their goods on expensive rail routes to central Canada rather than on ships to their traditional export markets in the New England states and elsewhere. Canada's east-west trade patterns, which were artificially created through the National Policy, promoted a shift to overland trade, for which the three Maritime provinces were geographically ill-suited and, in time, served to make the region an "isolated extremity of Canada" (Muise 1993, 24). The emerging trade patterns were artificial in the sense that they were created by political decisions flowing out of national political institutions, not by market forces.

The view that nation-building was essential for Canada to lessen its dependence on external conditions and that special measures were required, given both its small population and its small manufacturing sector, became conventional wisdom. C.D. Howe, for example, favoured either private monopoly regulated by government controls or Crown corporations to create a strong manufacturing sector.

BYPASSING THE MARITIMES

Howe's decision during the Second World War to locate the bulk of wartime production in central Canada speaks to the underlying goal of the country's economic development policy. At the start of the Second World War, Canada had 15 Crown corporations. Thirty-two were added during the war years, as Ottawa believed they were better suited to lure business people to manage war programs than a typical government department would be. Crown corporations represented a significant new source of investments, with the potential to generate a great deal of new economic activity. Indeed, they would provide the basis for future development in the manufacturing sector in the postwar years (Savoie 1990, chap. 10). For example, wartime Crown corporations gave rise to, among others, aircraft manufacturers, synthetic rubber producers, and an advanced technology company called Research Enterprises. Virtually all of the new corporations, however, were established in the Montreal-Windsor corridor; not a single one was located in the Maritime region (ibid., chap. 13). And that was not all. The Department of Munitions and Supply made extensive new investments in Canadian industries, but by 1944 only about 3.7 percent of these investments had been made in the Maritimes, mainly for aircraft and naval repair. In fact, even the bulk of the shipbuilding for the war was carried out elsewhere (Miller 1993, 325).

Thus, the Maritimes essentially were left on the outside looking in as the country's wartime manufacturing sector started to take shape. To make matters worse, the migration or the "assignment" of skilled labour to war industries in central Canada made it very difficult for the region to promote its own manufacturing sector in the postwar years. Here again, political decisions rather than market forces strengthened central Canada's position in the manufacturing sector. It is important to stress that C.D. Howe and others of like mind set out to build a nation, not regions, and concentrating industrial development made sense from this perspective. That practice had an added bonus – it made sense from a political perspective, given that the concentration of industry would be in vote-rich Ontario and Quebec.

It is now well established that the manufacturing sector in the Maritimes stagnated during much of the twentieth century. Although at the time of Confederation the region was fairly strong economically relative to both national and international standards, its position deteriorated during the first half of the twentieth century. We now know, for example, that relative to Canada, the Maritimes accounted for 14 percent of goods produced in 1880, only 9 percent in 1911, and 5 percent in 1939 (Alexander 1983, 68).

Things did not change after the Second World War. Historian W.L. Morton (1963) writes about the revival of national power between 1936 and 1949 (465). John Ibbitson (2001) adds that "after the Second World War, Queen's Park and Ottawa collaborated to ensure that the rest of the federation served the interests of the economic heartland" (5). The building of the St. Lawrence Seaway is a case in point. Ibbitson explains,

> Not only would a deepwater canal open Ontario's ports from Cornwall to the Lake-head to international shipping, but the electricity produced by damming the St. Lawrence would satisfy Ontario's electrical needs for a generation. As part of the new spirit of cooperation ... the seaway was an awesome undertaking and it boosted the economies of every province and state that bordered it, lowering the cost of Quebec iron ore that now supplied the Hamilton and Sault Ste. Marie steel mills, and opening western grain to

eastern exports. The railroads and Halifax paid the price. Ontario reaped the benefit of so much new power that, by the advent of the 1960s, virtually all the province's electricity was generated by water. (87-88)

The Canada-US Auto Pact is another case where political decisions and national political institutions rather than market forces influenced the location of new economic activity. The Auto Pact allowed firms to bring parts and autos into Canada without any tariff, provided that the firms created jobs and investment in Canada. The Auto Pact was signed in January 1965 by Prime Minister Lester Pearson and President Lyndon Johnson after months of Washington-Ottawa negotiations.

The agreement benefited large American auto makers and southern Ontario. In exchange for tariff-free access to the Canadian market, the Big Three US auto makers agreed that automobile production in Canada would not fall below 1964 levels and that for every five new cars sold in Canada, three new ones would be built here. The Auto Pact had an immediate effect. In 1964 only 7 percent of the automobiles built in Canada were sold in the United States; the proportion jumped to 60 percent by 1968 (Molot 1999). Jim Stanford (2004) explains that all of this development did not happen by accident: the main instrument was the 1965 Canada-US Auto Pact. The Auto Pact was a free-trade agreement in one sector in the interest of one region, a region whose economic interests, from an Ottawa point of view at least, flowed quite nicely into a national perspective. It explains why both politicians and senior career officials in Ottawa worked to ensure its signing and implementation. The industry has also been able to secure federal funding in recent years to modernize its operations.[3] The Auto Pact brought few direct economic benefits to the Maritimes; in fact, it made the purchase of an automobile more expensive for Maritimers and other Canadians.

THE SOLUTION: SEND GUILT MONEY TO MARITIMERS

Politicians and policy-makers of the day recognized Canada's uneven economic development and were aware that national policies favoured the Quebec City–Windsor corridor. The government of Canada established royal commissions to deal with the issue, but deliberately avoided asking them to address "the causes of uneven development between regions" (Lithwick 1986, 116).

The Royal Commission on Dominion-Provincial Relations, more commonly known as the Rowell-Sirois Commission, argued that "the wealth produced nationally should be taxed nationally and redistributed on a

[3] See, among many others, "Project Would Secure about 4,000 Jobs at Plant," *Globe and Mail*, 8 September 2004, B18.

national basis, instead of being taxed in the main by the central provinces for the benefit of the central provinces" (Miller 1993, 326). In other words, while the commission did not want to change where wealth was being produced in the country, it argued that the benefits from it should be shared nationally. The national economy should be promoted, but dividends flowing from it should be shared with all regions. Thus began the flow of guilt money to slow-growth regions in the form of transfer payments and regional development programs.

Fifteen years after the Rowell-Sirois Commission, Ottawa established yet another royal commission to review Canada's economic potential, the Royal Commission on Canada's Economic Prospects. This commission also did not address "the causes of uneven development" between the regions.[4] Such inequity was taken as a given that need not be revisited. Instead, the challenge, as the commission saw it, was to find ways to promote economic development in slow-growth regions without hurting the stronger provinces, in particular Ontario.

The Atlantic premiers pressed the commission to come up with measures to promote economic development in their region. At the same time, however, there were concerns increasingly being heard in Ottawa that the federal government ought not to play regional favourites; that is, Ottawa should not agree to any special concessions for the Maritime provinces unless it was prepared to make them available to the other regions. Moreover, equalization in the mid-1950s meant something very different from what it does today, and the prevailing view was that all federal payments to the provinces should be made on an "equal" basis. New Brunswick historian W.S. MacNutt (1956) rebutted this view: "Where is the equalization in the operation of tariff policy ... in the St. Lawrence Seaway, in the pipeline contract? We can say that, since we started on fairly even terms in 1867, equalization as seen from Ottawa has had some curious results" (13).

The Royal Commission on the Economic Union and Development Prospects for Canada (Canada 1985), also known as the Macdonald Commission, took a "leap of faith" in recommending a free trade agreement with the United States. The commission had little to say about regional economic development other than to recommend an end to regional subsidies to corporations. As Michael Bradfield (1986) argues, the commission saw regional economic development as a political problem, relegating it to volume three – institutional context. The commission, however, recognized that national political institutions were not able to properly accommodate regional circumstances and recommended an elected Senate with representation favouring the economic and geographic peripheries.

[4] See, among others, Lithwick (1986, 116) and Canada (1957, 494).

Courchene's own contribution to the Macdonald Commission focused on Canada's institutional arrangements. He wrote about comparative federalism and did address regional policy goods and Canada's equalization programs. His work on the political and economic rationale for equalization has stood the test of time (Courchene 1986).

LAUNCHING REGIONAL DEVELOPMENT INITIATIVES

The Diefenbaker government first gave life to regional economic development programs in a series of measures geared toward a handful of economically depressed rural areas (e.g., Brewis 1978). The focus was on slow-growth regions in selected provinces, notably Manitoba, Quebec, and Atlantic Canada. In 1962, Ottawa established an economic development agency dedicated solely to Atlantic Canada. The Atlantic Development Board (ADB) was asked to define an economic development plan for the four Atlantic provinces, and it was given a special fund to support initiatives. The bulk of the spending was earmarked for infrastructure projects from roads to industrial parks (Careless 1977). Later, the federal government decided to offer cash incentives to the private sector to locate or expand operations in carefully selected regions (Walton 1978, 44).

Canada's regional development efforts would enjoy a new high-profile priority the day Pierre Trudeau came to power. It will be recalled that he boldly declared that

> economic equality is just as important as equality of language rights.... If the underdevelopment of the Atlantic provinces is not corrected, not by charity or subsidy, but by helping them become areas of economic growth, then the unity of the country is almost as surely destroyed as it would be by the French-English confrontation. (quoted in Phidd and Doern 1978, 324)

Shortly after assuming office, Trudeau called a general election and campaigned vigorously on the theme of national unity. The Liberal Party was returned to power with a strong majority after five years of minority rule. There was no doubt that the new government would give increased priority to regional development. Trudeau appointed Jean Marchand, his trusted Quebec lieutenant, as the minister responsible for the newly established Department of Regional Economic Expansion (DREE) and Tom Kent, a powerful figure in Ottawa, as its deputy minister. Early in its policy deliberations, the cabinet decided to direct its priorities toward Eastern Canada. Jean Marchand stated that about 80 percent of the new expenditures should be spent east of Trois-Rivières, otherwise the government's regional development policy would fail. Only "modest and controlled" expenditures should be directed to the slow-growth northern and northwestern areas of Ontario, Manitoba, and the northern parts of the three most western provinces (Savoie 2006, 85).

The Trudeau government settled on François Perroux's "growth-pole" concept to define the new policy (Savoie 2006, 85). The rationale was simple. The main difference between, say, Ontario and the Maritime provinces, according to Marchand, was that Ontario had major urban centres with vigorous economic growth to which people from northern Ontario could move. The Maritimes had few cities capable of strong growth and of providing employment; consequently, many people remained in economically depressed rural areas. The growth-pole concept, it was believed, could create new opportunities at selected urban centres.

It was not long, however, before Ottawa's regional development measures were enlisted to fight national unity battles. Cabinet ministers and MPs from the Montreal area frequently made the point that Montreal was Quebec's growth pole and that if DREE were serious about regional development, then it ought to designate Montreal under its industrial incentives program.

Montreal's growth performance rate was not keeping pace with expectations, particularly those of the large number of Liberal MPs from the area. The city's unemployment rate stood at 7 percent in the mid-1970s, compared with 4.6 percent for Toronto. Further, Quebec's economic strength, Quebec MPs argued time and again, was directly linked to Montreal. Unless new employment opportunities were created there, little hope was held for the province's peripheral areas. Montreal required special measures, they argued, to return to a reasonable rate of growth (Savoie 2006, 93). The Trudeau government agreed to put in place special economic development measures for Montreal (Savoie 1986).

A few years later, the then DREE minister, Marcel Lessard, went to cabinet to designate Montreal for more generous funding. The election of the Parti Québécois in 1976 set off alarm bells in Ottawa, and Lessard made the case that the country's national unity was at stake and the government had to look at regional development from a different perspective. Lessard later acknowledged that, with considerable help from seven ministers from the Montreal region, including the prime minister, he was finally able to convince the cabinet to designate Montreal for still more generous federal regional development programs.

Members of Parliament and cabinet ministers from outside Quebec argued that if Ottawa could justify regional development measures for Montreal, why could it not justify such measures for Vancouver and Toronto? Cabinet ministers from the Atlantic provinces pointedly referred to Marchand's comment about the necessity of spending 80 percent of DREE's budget east of Trois-Rivières. How would a Montreal designation affect other regions? Would it still be possible, for example, to attract firms into depressed regions if they could instead obtain a cash grant for starting new production in Montreal (Savoie 1986, 107)? Their voices, however, took a back seat to national unity concerns.

By the late 1970s, Ottawa's regional development efforts were being assailed from all sides. For one thing, the government's regional policy was caught in the political crossfire in the all-out battle for the hearts and minds of Québécois (Simeon 1977). For another, the country's economic picture had also changed dramatically since DREE was first established. Then few had doubted that the economy would continue to prosper. By 1976, however, the economy was stagnant; unemployment was high and so was the inflation rate. The term *stagflation* had crept into our vocabulary (Canada. Conseil économique 1976).[5] Given modest growth, high unemployment, and inflation, some were already beginning to ask whether Ottawa should continue to prop up slow-growth regions through transfer payments and regional development.

THEN ALONG CAME TOM COURCHENE

Tom Courchene's 1981 article, "A Market Perspective on Regional Development," became required reading in economic departments and central agencies in Ottawa. Department of Finance and other central agency officials pointed to Courchene's article to challenge regional development programs. DREE officials, on the other hand, sought to dismiss Courchene's argument, insisting that it ignored national unity considerations and that it overlooked the contributions the efforts had made to slow-growth regions.[6] DREE had, however, little empirical evidence in the form of evaluation reports showing that its efforts had had a clear positive impact (e.g., Savoie 1986).

DREE launched a policy review that, to some extent, sought to square with the Courchene article. DREE no longer saw itself as a department with a mandate to alleviate regional disparities. Rather, it increasingly saw itself as an economic development department with a mandate to focus on all regions, including the "have" regions. The DREE minister and senior departmental officials told the Senate Standing Committee on National Finance that "DREE is not a welfare agency.... Our primary objective ... is to help each region of Canada nurture and cultivate those areas and prospects with the best potential for development." This could be best accomplished by "intensive analysis ... to identify the comparative advantages of each region" (Canada 1978, A7-A8). In brief, DREE would no longer be in the business of alleviating regional disparities.

In the late 1970s and early 1980s, DREE produced a series of reports assessing the economic performance of Canada's regions. In its review of Ontario's economic circumstances, it concluded that sustained, strong

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[5] This annual report deals at length with the problem of inflation.

[6] I was a DREE employee at the time and on loan to the Minister's Office as senior policy advisor.

economic growth could no longer be taken for granted (DREE 1979, 2). The increasing cost of energy and the westward movement of investment capital had weakened Ontario's economic performance. During the 1970s, Ontario's economy had fallen behind that of the rest of Canada. Though narrowing regional disparities was a noble objective, "the fact that it is occurring more by means of Ontario's weakening position rather than through other regions' growing strength, with the possible exception of Alberta and British Columbia, should be a matter of national concern." A weakened Ontario would "have negative implications for the whole country" (ibid., 1-14, 58-59). Senior DREE officials were part of the Ottawa system, and the thinking in central agencies was that it made little economic sense to promote development in slow-growth regions when Ontario's economy was ailing. Well aware of Ontario's political clout in cabinet, the result was that DREE was now prepared to speak to the economic interests of Ontario in the hope that it could stave off its own demise.

On January 12, 1982, Prime Minister Trudeau unveiled a major government reorganization for economic development. DREE was disbanded. The minister of finance explained why in his 1981 budget speech. He tabled a departmental document which maintained that regional balance was changing as a result of buoyancy in the West, growing optimism in the East, and unprecedented softness in key economic sectors in central Canada. Underpinning this view were the economic prospects associated with resource-based megaprojects.

The Department of Finance argued that the Atlantic region, in contrast to historical economic trends, was expected to enjoy a decade of solid growth, largely as a result of offshore resources. The West, meanwhile, would capture over half of the investment in major projects. Ontario and Quebec would face problems of industrial adjustment, brought about by increased international competition (Department of Finance 1981, 11).

The new economic development organization, however, lasted only a few years. It soon became apparent that Finance officials had overestimated the impact of resource-based megaprojects, particularly in Atlantic Canada, and the economic slow-down in central Canada proved to be short-lived. Things came to a boil when it was discovered that over 70 percent of the new department's spending went to Ontario and Quebec. In addition, its regional incentives program proved to be more generous in some instances to firms wishing to locate in Ontario rather than in Nova Scotia (Savoie 1987, 14).

YET ANOTHER APPROACH TO REGIONAL DEVELOPMENT: MANNA FOR ALL

Prime Minister Brian Mulroney went to St. John's, Newfoundland, on June 6, 1987, to announce a "new regional development agency, new money, a new mission and a new opportunity." He asserted that the

Atlantic Canada Opportunities Agency (ACOA) would "succeed where others had failed."[7]

Several months earlier, the prime minister had asked me to consult with a cross-section of Atlantic Canadians and to prepare a report for his consideration on the establishment of an economic development agency for the region. I submitted my report on February 24, 1987, and recommended a market-oriented approach. I urged a shift in focus, one designed "to develop the private sector in the region" and made the case that "no longer can hopes for economic development be tied solely to the ability of governments (particularly the federal government) to lure to the region major investors with cash grants and other schemes" (Savoie 1987, 4).

The government accepted some of my recommendations and rejected others. I had urged the government to establish a small agency with a staff of 100 and a modest budget. Though the government did mandate the agency to focus on developing the local private sector, it gave it $1 billion of new money over five years and a staff that, at one point, grew to over 700 (Savoie 2006).

Within weeks after unveiling ACOA, Mulroney went to Edmonton to unveil a similar agency for Western Canada – Western Diversification (WD). It will be recalled that the Mulroney government was in serious political difficulty in the West. The government had awarded the CF-18 maintenance contract to a Quebec firm, although a Winnipeg firm had submitted the lowest bid. The government felt that a new regional development agency patterned on ACOA and with a $1.2 billion budget would ease the political temperature in the region.[8]

In that same summer the Mulroney government unveiled yet another regional development agency, this one for northern Ontario. The Federal Economic Development Initiative in Northern Ontario (FEDNOR) was also given new money and a mandate to work with the local business community to promote economic development.[9]

Ottawa then turned to Quebec and signed a five-year $820 million agreement to develop the province's regions. The funding was increased by $283 million in 1989, the same amount the government had given to both ACOA and WD (Canada 1988, schedules B, C, and D).

But that was hardly the end of it. In 1991 the government gave agency status to Quebec regional development. It was called the Federal Office of Regional Development-Quebec (FORD-Q). The agency was renamed the Economic Development Agency of Canada for the Regions in 1998.

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[7] See, among others, "PM Launches New Agency for Atlantic Canada," *Halifax Sunday Herald*, 7 June 1981, p. 1.

[8] See, for example, "Tories Seek to Regain Support with Western Diversification Plan," *Ottawa Citizen*, 9 August 1987, p. 3.

[9] See "Tory Activists Friends Fill New Board," *Globe and Mail*, 21 November 1987, B3.

The evolution from federal-provincial programs for regional development to a stand-alone federal agency was tied to what the other Canadian regions had and to Ottawa's desire to be visible in delivering programs in Quebec (Savoie 2006).

Here again that was hardly the end of it. In the summer of 2009, Prime Minister Stephen Harper unveiled yet another regional development agency – FedDev – this one for southern Ontario. The prime minister explained, "The global recession has created challenges in every region of our country, including Southern Ontario. This is a region with distinct needs."[10] The agency was given $1 billion over five years, the same amount awarded to ACOA, WD, and federal regional development efforts in Quebec.

All of the above makes the point that every postal code in Canada now has access to a federal regional development agency. Think back to when the first DREE minister, Jean Marchand, declared that unless federal regional development policy committed about 80 percent of funding to regions east of Trois-Rivières, it would be seen as a failure. That was at a time when the policy was tied to alleviating regional disparities. With a dedicated agency operating now in every postal code in the country, it is clear that federal regional development is no longer tied to alleviating regional disparities.

Having a regional development agency in every region speaks to the flaws in national political institutions and to the inability of national policies to accommodate Canada's regional diversity and regional economic circumstances.

REVISITING COURCHENE AND REGIONAL DEVELOPMENT

Tom Courchene's contribution to both the literature and to policy debates in Ottawa was to point to a fundamental flaw in regional development programs and federal transfer payments. He argued that rather than promote economic development, they all too often inhibit it. Courchene led the way in recasting the regional development debate by introducing into it the idea of a regional dependency syndrome. In a nutshell, Courchene argued that a strong reliance on federal government programs and transfer payments will invariably make a region dependent on these to support current levels of consumption and services, which are much higher than could be sustained by the economic output of the region. The dependency syndrome also serves to blunt the long-term adjustment required to bring production and consumption into line.

[10] "PM Launches New Economic Development Agency for Southern Ontario," News release, 13 August, http://www.pm.gc.ca/eng/news/2009/08/13/pm-launches-new-economic-development-agency-southern-ontario.

Courchene has it right in linking federal transfers to regional dependency. But this can never constitute the complete answer to Canada's uneven economic development. Courchene and other neoclassical economists overlook the causes that led the federal government to send guilt money to slow-growth regions in the first place. History, the inability of national political-administrative institutions to accommodate the economic interests of smaller regions, and the resulting inherent bias in national policy matters are important parts of the answer.

Paul Martin summed it up well shortly after becoming leader of the Liberal party when he observed: "When a regional issue arises in central Canada, it very quickly becomes a national issue," but that is not the case for other regions (quoted in Smith 2004, 103). The problem, as Jennifer Smith writes, "is that nobody within the federal government is designated to represent the provinces or to speak for them in federal councils" (ibid.). This, together with the majoritarian bias of Parliament, explains in no small measure why Ottawa has national economic policies that are driven by the interests of Canada's heartland, and redistributive policies that are geared to the slower-growth provinces. Redistributive policies have been the price Ottawa has decided to pay to pursue a regional policy for central Canada, disguised as national policy. However, the past 50 years have shown that redistributive policies do not produce positive historical events in economic development.

It is hardly original to write that in a federation as large and as diverse as Canada, national political institutions need a capacity to speak for smaller provinces and regions. We can only stress that Senate reform, which would serve to give voice to the smaller provinces at the national level, is long overdue. We can also make the case that it would not weaken the national government. Roger Gibbins (1982) explains that, in the case of the United States, "effective territorial representation within national political institutions has promoted national integration, strengthened the national government, broadened its reach, and reduced the power of state governments to a degree unimagined in the founding years of the American republic" (195). He adds that "strengthening regional representation at the centre would provide a mechanism for the further nationalization of Canadian policies" (ibid.). One could also add that, coincidentally or not, American regional economic development policy has been quite different from the Canadian experience; in the United States, different regions have taken turns at high growth far more than they have in Canada (Higgins, Hansen, and Savoie 1990, 195). There are powerful forces in Canada resisting Senate reform. Otherwise it would have been done a long time ago. Much as big dogs do not easily share their food, there are clear advantages for certain provinces and regions to leave well enough alone when they see no reason for change.

The Ontario government wants to abolish the Senate, and Quebec threatens to take the federal government to court should it proceed with Senate reform without the consent of the provinces, now a highly unlikely development. The Ontario government and Ontario-sponsored think tanks have called on Ottawa to overhaul federal transfer payments, notably the Employment Insurance Program, to the benefit of the province and Ontarians.

All Canadian regions, including Ontario, should take to heart Courchene's warning that regional development programs and federal transfer payments inhibit self-sustaining economic development and create regional dependency. Courchene has made important contributions to several public policy fields, and his 1981 article "A Market Perspective on Regional Disparities" remains as relevant today as it was when he first published it. Courchene (1981) warned that the regional dependency challenge was not limited to the Maritime provinces: "The tremendous pressures to avoid short-term adjustment has led me elsewhere to talk of the potential for the 'Maritimization of Ontario' – that is, of the generalized transfer system to prop up and rigidify central Canadian industry" (511).

Indications are that Ontario continues to ignore Courchene's advice. The government of Ontario and some of the think tanks it sponsors have called on Ottawa to overhaul its Employment Insurance program and its transfer payments to benefit Ontario.[11]

The Maritime provinces, with one exception, have also ignored Courchene's advice for short-term political gains. Frank McKenna, New Brunswick premier from 1987 to 1997, embraced a market approach to economic development. He often said that he did not want to see his province as a supplicant going to Ottawa with hat in hand asking for more federal transfers (Savoie 2001).

COURCHENE'S CALL FOR DECENTRALIZATION

Courchene has long called for greater decentralization in the Canadian federation. Ottawa, however, has always been able to count on the support of Maritime provinces for a greater federal role in both economic and social policy. The thinking in the region is that a strong central government is required to ensure redistributive spending. However, the language of both redistributive spending and regional economic development is no longer as politically saleable as it once was. For one thing, it lacks the cachet of the language of national economic development. Though the facts may not square with the notion, national economic development implies no regional favourites, while regional economic development does. Reality, as history has shown time and again, is quite different.

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[11] See "What the New EI Rules Mean," 10 July 2012, and "Fiscal Problems, Taxation Solutions: Options for Reforming Canada's Tax and Transfer System," 13 May 2012, www.mowatcentre.ca.

Looking back, the Maritime provinces should have heeded Courchene's advice on two fronts. They should have recognized that the main benefit flowing from a strong central government was transfer payments and that transfer payments were hardly the solution to economic development. A strong central government offered little support to the region to promote a self-sustaining economy – it did the opposite. Federal redistribution policies – or Ottawa's guilt money – have created a dependency syndrome in the Maritime provinces. Guilt money has lost its appeal in Ottawa.

Ontario now appears less certain about its own place in the federation and in its relations with the federal government and the other provinces. One observer of Queen's Park remarked:

> Historically, Ontario was always the province most comfortable with Canadian federalism. Ontarians saw the government in Ottawa as their government, acting for a nation they saw as their own.... Ottawa took care of Canada for Ontario ... and it worked. Ontario is coming to the conclusion that Ottawa no longer works in its interest. (Walkom 1990, D4)

While it may have made economic sense to support transfer payments to slow-growth regions 40 years ago, it is less clear that this is so today. The findings of the Ontario government's three-volume report entitled *Competing in the New Global Economy* are an excellent example of this thinking (Ontario. Premier's Council 1989).

As Ontario adjusts to global economic forces, it is questioning programs designed to maintain Canada's east-west links, whether in the form of transfer payments to individuals or of federal regional development programs. Measures to undercut the cost structures of Michigan, Mexico, or China are more pressing for Ontario than are securing east-west links. Global economic forces will also have a major impact on the evolution of the political economy of Canada's regions. As these regions become inserted differently into the global economy, their links with the outside world will "become more important relative to their economic linkages within Canada" (Simeon 1990, 12). In this sense, Canada becomes less able to act as the giant "mutual insurance company" that Saskatchewan premier Allan Blakeney once called it. In such a political economy, "it may well become harder to sustain the political commitment in wealthier provinces to interregional redistribution" (ibid.). Tom Courchene saw this scenario unfolding before anyone else.

LOOKING BACK: COURCHENE WAS RIGHT

Slow-growth regions are responding to Courchene's warnings that a strong central government may not square with their long-term economic interests. The government of New Brunswick, for example, recently challenged in court Ottawa's attempt to establish a national securities regulator.[12]

Now, some 30 years later, the have-less provinces are, willingly or not, responding to Courchene's policy prescriptions. They have discovered that federal transfer payments can hardly promote self-sustaining economic activities. Globalization and regional trade agreements are slowly but surely levelling Canada's economic playing field.

The have-less provinces will now have to join all provinces in charting a new course in a highly competitive global economy. That has been Courchene's policy prescription over the years, and Canada and its regions are learning to apply it. Moving in the directions proposed by Courchene will, in time, make a stronger and economically healthier Canada.

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CAN TAXES HELP CURE THE CANADIAN OBESITY EPIDEMIC? LESSONS LEARNED FROM THE POLICY DEBATE IN THE UNITED STATES

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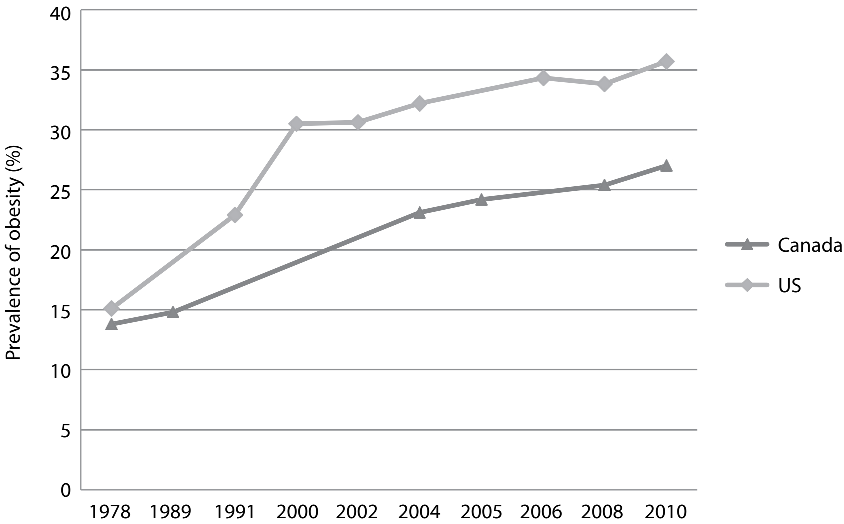
INTRODUCTION AND BACKGROUND

Sugar-sweetened beverages (SSBs) are the leading source of added sugar and calories in the North American diet (Reedy and Krebs-Smith 2010; US Department of Agriculture and US Department of Health and Human Services 2010; Welsh et al. 2011) and are associated with increased risk of type 2 diabetes, cardiovascular disease, dental caries, osteoporosis, and obesity (Malik, Schulze, and Hu 2006; Vartanian, Schwartz, and Brownell 2007). As shown in Figure 1, obesity (defined as body mass index ≥ 30) rates more than doubled over the past several decades reaching 27 percent in Canada in 2009–11, and tracked even higher in the United States reaching 36.9 percent in 2009–10 (Flegal et al. 1998, 2012; Public Health Agency of Canada and Canadian Institute for Health Information 2011). Obesity rates for children tripled over the same period in both countries, reaching 11.7 percent for children aged 5–17 in Canada and 16.9 percent for children aged 2–19 in the United States (Ogden et al. 2012; Roberts et al. 2012). The annual health-care cost burden associated with obesity is estimated to be as high as $209.7 billion (approximately $690 per capita) in the United States (Cawley and Meyerhoefer 2012) and to range from $4.6 to $7.1 billion (approximately $145 to $225 per capita) in Canada (Anis et al. 2010; Public Health Agency of Canada and Canadian Institute for Health Information 2011).

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

FIGURE 1
Trends in adult obesity rates in Canada and the US, 1978–2010



Sources: Public Health Agency of Canada and Canadian Institute for Health Information (2011); Statistics Canada (2012a); and Flegal, Carroll, Kit, and Ogden (2012); and Flegal, Carroll, Kuczmarski, and Johnson (1998).

Soft drink consumption in Canada doubled over a 30-year period from 46.6 litres per person in 1972 to 95.1 litres per person in 2002 (Statistics Canada 2010). Since 2002, soft drink consumption has fallen and, in 2009, the average Canadian consumed 71.7 litres of soft drinks annually, equivalent to approximately 200 ml per day or about 80 kcal per day (Statistics Canada 2010). Among Canadian youth, soft drink consumption is shown to increase substantially with age, with 53 percent of boys and 35 percent of girls aged 14–18 consuming soft drinks on a given day in 2004; in addition, approximately 35 percent of boys and 34 percent of girls aged 14–18 consume fruit drinks on a given day (Garriguet 2008). Increases in SSB consumption similarly occurred in the United States. Estimates from 1988–1994 to 1999–2004 reveal that adults' average daily caloric intake of SSBs increased approximately 30 percent reaching 203 kcal, with 63 percent of adults consuming SSBs daily (Bleich et al. 2009). Over the same period, SSB intake among children aged 2 to 19 increased by approximately 10 percent to 224 kcal. As in Canada, SSB consumption is particularly prevalent among adolescents: 84 percent of adolescents aged 12 to 19 consumed SSBs and average SSB intake was 301 kcal in 1999–2004. Recent evidence shows declines in SSB consumption for all age groups in the United States from the early 2000s through 2007–08 (Han and Powell 2013; Welsh et al. 2011). Over this recent period, however, the prevalence of sports/energy drink consumption increased for all ages and the prevalence of heavy (≥500 kcal/day) SSB consumption increased among American children aged 2 to 11 (Han and Powell 2013).

Given the significant intake of SSBs, the escalation of SSB-related co-morbidities, and the high prevalence of obesity and its related health-care costs, governments increasingly propose soda and broader SSB taxes as potential policy instruments to incentivize consumers to reduce their intake of SSBs and improve related health outcomes (Brownell and Frieden 2009; Brownell et al. 2009). In the United States, soda and other SSBs are currently taxed in some states and localities, but at relatively low rates that were not intended to impact behaviour but to generate revenue (Chriqui et al. 2008; Powell and Chriqui 2011). As of July 1, 2012, 35 states taxed soda sold in grocery stores with a mean tax rate of 3.54 percent across all states and 5.16 percent (range of 1.225–7 percent) in taxing states (Chriqui et al. 2013). Further, 16 to 31 states also tax other sugar-sweetened beverages such as isotonic beverages, ready-to-drink sweetened teas, and less than 100 percent fruit juice, with mean tax rates ranging from 3.69 to 5.07 percent. In addition, seven states impose small excise and equivalent taxes/fees on SSB beverage bottles, syrups, and powders, but similar to the sales taxes, none of the revenue is dedicated for obesity prevention (Chriqui et al. 2013). In Canada, carbonated beverages and less than 25 percent fruit juice drinks are taxed by the Goods and Services Tax (GST) and Provincial/Harmonized Sales Tax (P/HST) with overall rates ranging from 5 to 15 percent depending on the province (Canada Revenue Agency 2007, 2011).

In the past few years, numerous proposals have been made in state and local legislatures in the United States to adopt much higher taxes on SSBs. Many tax proposals have called for a penny per ounce, equivalent to an approximate range of 20–35 percent depending on how the SSBs are sold, although some proposals have been for twice that amount (see Table 1 for selected examples). In addition to influencing behaviour, such taxes are estimated to raise substantial tax revenue which, in turn, could be dedicated to health promotion programs that further aim to reduce population obesity (Andreyeva, Chaloupka, and Brownell 2011). For example, a penny per ounce tax on SSBs is estimated to raise $13.2 billion per year nationally in the United States (Yale Rudd Center for Food Policy and Obesity 2012b).

In Canada, SSB taxes also are increasingly being proposed as a policy instrument to help reduce SSB-related diseases and obesity by public health organizations including the Chronic Disease Prevention Alliance of Canada (2011), the Quebec Coalition on Weight-Related Problems (2011), the Childhood Obesity Foundation (2011), the BC Healthy Living Alliance (2012), the Alberta Policy Coalition for Chronic Disease Prevention (2012), and the Ontario Medical Association (2012). Taxing unhealthy foods as a policy option to address obesity has also been

TABLE 1
Selected examples of sugar-sweetened beverage tax-related legislative activity in the US, 2011–12

State (Bill)	*Proposed tax*	*Revenue dedication*	*Status*
California (CA HB 669)	\$0.01/ounce on SSBs	Children's Health Promotion Fund	Bill failed to pass 3/1/2012
Hawaii (HI SB 3019)	\$0.01/teaspoon tax on SSBs	Community health centres and trauma system special funds	Bill failed to pass 9/11/2012
Mississippi (MS SB 2642)	\$2.56/gallon or \$0.02/ounce on SSBs	Children's Health Promotion Fund	Bill died in committee 3/29/2012
New Mexico (NM SB 288)	\$0.005/ounce on SSBs	Medicaid and Child Obesity Prevention Fund	Bill died in committee 4/19/2011
New York (NY HB 67004)	\$7.68/gallon on syrup, \$1.28/gallon on bottled soft drinks, and \$1.28/gallon on soft drinks from powder	Not specified	Bill failed to pass 1/6/2011
Oregon (OR HB 2644)	\$0.005/ounce on SSBs	Health Promotion Fund to support programs designed to reduce and prevent obesity	Bill died in committee 7/8/2011
Rhode Island (RI SB 295)	\$0.01/ounce on SSBs	Public health efforts and programs focused on eradicating obesity	Bill died in committee 9/12/2012
Tennessee (TN HB 537)	\$0.01/ounce tax on bottled SSBs	Exchange for 1% reduction in state sales tax on food – referred to as "swap legislation"	Bill died in committee 9/12/2012
Texas (TX HB 2214)	\$0.01/ounce of SSB, powder, or syrup	Children's health programs	Bill died in committee 7/8/2011
Vermont (VT HB 151)	\$0.01/ounce tax on SSBs	Vermont Oral Health Improvement Fund	Bill died in committee 9/14/2012

Note: SSB = sugar-sweetened beverage.
Source: Yale Rudd Center for Food Policy and Obesity (2012a).

raised by the Public Health Agency of Canada and Canadian Institute for Health Information (2011) and the Heart and Stroke Foundation (2011). To date, however, SSB taxes have not been tabled in municipal or provincial legislatures or federally.

This chapter reviews the development of the evidence base on the potential effectiveness of using fiscal tax instruments to improve public health in the area of obesity. It also discusses the opposition to SSB taxes, particularly the extensive industry backlash experienced in the United States that Canadian policy-makers can expect as they continue to explore SSB taxes. The chapter concludes by outlining tax designs that are likely to be the most effective for improving diet and weight outcomes. Finally, it highlights areas of future work that are needed to build the evidence base to support the development of effective fiscal policies as part of a broader policy portfolio to tackle the emerging obesity epidemic in Canada.

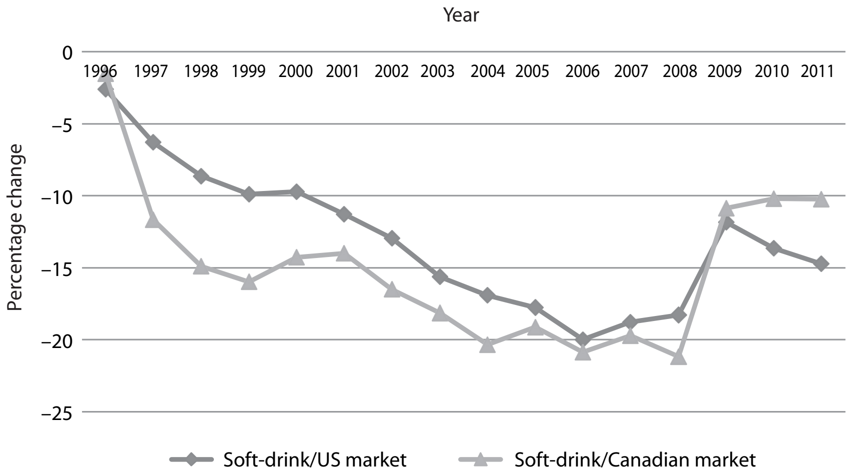
THE EMERGING EVIDENCE BASE

SSB taxes are posited based on the standard economic framework for using pricing instruments to alter the relative prices of certain products (i.e., less versus more healthful food and beverage products) with the aim of changing consumer demand at the broad population level (Powell and Chaloupka 2009). Economic rationales for SSB tax policies are similar to those that were put forth for tobacco based on market failures, including the significant health-care costs resulting from treating SSB-related diseases and productivity losses. Indeed, individuals may not consider the future costs of their behaviours; in particular, youths, who have the highest rates of SSB consumption, may not account for the future consequences of their consumption (Powell and Chaloupka 2009).

Examining simple trends, parallel to the increases in SSB consumption and obesity over the past few decades, the real inflation-adjusted price of soft drinks has fallen (Powell et al. 2013). Further, relative to other food items, particularly healthy foods, soft drinks have become even cheaper. For example, in the United States between 1980 and 2011, it became 2.2 times more expensive to purchase fresh fruits and vegetables versus carbonated beverages (Powell et al. 2013). Figure 2 shows that between 1996 and 2011 the real price of soft drinks was down by approximately 10 percent in Canada and 15 percent in the United States.

The evidence from consumer demand models on the extent to which higher prices may reduce soda and SSB demand continues to emerge and suggests significant price sensitivity. A comprehensive review of studies of consumer demand published through to 2007 reported that, on average, a 10 percent increase in price would reduce consumption of soft drinks, which included both regular and diet versions, by 7.9 percent (Andreyeva, Long, and Brownell 2010). A more recent review of studies published

FIGURE 2
Cumulative real changes in the price of soft drinks the US and Canada, 1996–2011



Sources: Statistics Canada (2012b, 2012c); US Bureau of Labor Statistics (2011); author's calculations.

from 2007 through to 2012 that assessed SSB beverages reported a price elasticity of –1.2, suggesting that SSB consumption is more price sensitive than previously reported and that a tax that raised SSB prices by 20 percent would decrease consumption by 24 percent (Powell et al. 2013).

Whether changes in prices for particular products result in overall weight changes depends on both the extent to which consumption responds to its own price and the extent of cross-price effects that result in substitution across products which, in turn, affects net caloric intake and ultimately weight and obesity outcomes. As SSB taxes and food/beverage taxes and subsidies have been increasingly debated in Canada, the Heart and Stroke Foundation commissioned an expert panel to assess the potential effectiveness of using pricing instruments to combat obesity (Faulkner et al. 2011). In the area of SSBs, the panel assessed evidence from five empirical studies available at the time, the majority of which found small effects on body weight, in some instances only for certain subpopulations. One study found no statistically significant association with body weight. All of these studies were based on exposure to existing state-level soft drink taxes in the United States; however, using state-level soda sales taxes as a proxy for how SSB prices may impact behaviour and related body weight has a number of limitations. First, the sales tax rates themselves are very low, ranging from 0 to 7 percent. Second, the soda sales taxes apply to both regular and diet versions of soda. Third, the soda sales taxes are not incorporated in the shelf price and, therefore, are not salient. And fourth, soda producers may adjust the pre-tax wholesale prices.

Whereas the studies that linked existing soda sales taxes to weight outcomes showed limited, if any, associations with body weight outcomes, two more recent studies that used a carbonated beverage price rather than a tax measure found significant associations with children's (Wendt and Todd 2011) and adults' (Duffey et al. 2010) weight, although another study found no effect among young adults (Han and Powell 2011). Further, a number of simulation studies that modelled the impact of price on consumption (including substitution across beverages) and consumption on body weight suggest that large SSB taxes are likely to have meaningful impacts on obesity. For example, in a 2010 US Department of Agriculture study, it was estimated that a tax that raised SSB prices by 20 percent would lead to a reduction of 37 kcal per day or 3.8 pounds per year among adults, and 43 fewer kcal per day or 4.5 fewer pounds per year among children; this outcome would lower obesity prevalence from 33.4 to 30.4 percent among adults and from 16.6 to 13.7 percent among children (Smith, Lin, and Lee 2010). Significant but smaller impacts on body weight (1.6 pounds in the first year and 2.9 pounds in the long run) were found in recent work that also accounted for substitution to non-beverage food items (Finkelstein et al. 2013).

INDUSTRY OPPOSITION TO SSB TAXES

As noted earlier, numerous proposals have been made in US state and local legislatures to adopt significant new taxes on SSBs, the proceeds of which in recent legislation are proposed mostly for health promotion in the area of obesity prevention (Andreyeva, Chaloupka, and Brownell 2011). However, these proposals have faced substantial opposition and lobbying by the beverage industry and to date have not been successful. In 2009, when the US federal government was considering a national-level tax, the Coca Cola Co., PepsiCo, and the American Beverage Association (ABA) spent $40.2 million lobbying the federal government, up from $1.3 million in 2005 (Center for Science in the Public Interest 2012). Substantial additional funds have been spent lobbying at the state and local levels in opposition to SSB tax proposals.

At the local level, for example, the ABA and the MD-DE-DC Beverage Association spent $380,000 on lobbying against the proposal in the 2009–10 legislative session to fund the DC Healthy School Act with a penny-per-ounce excise tax on SSBs (Center for Science in the Public Interest 2012). Just recently, also at the local level, the ABA spent approximately $4 million to defeat the November 2012 election ballot measures proposing penny-per-ounce taxes on SSBs in Richmond and El Monte, California (Drange 2012; Zingale 2012). At the state level, for example, the ABA contributed $16.7 million to the campaign "Yes on 1107," which was the initiative that repealed the legislation in Washington state that only a few months earlier had included a tax of 2 cents on each 12-ounce can or bottle of carbonated beverages (Center for Science in the Public Interest 2012; Welch 2010). In response to the penny-per-ounce SSB tax proposed by New York state's governor in 2010, the ABA spent $12.8 million that year on lobbying activities in that state (Center for Science in the Public Interest 2012).

To garner and build anti-tax sentiment from the broader population, the beverage industry also supports negative media campaigns such as "Americans against Food Taxes," which include television ads aired throughout the United States attacking government for proposing to tax families' food (Americans against Food Taxes 2009). Note that the industry's tag line in their attacks is against taxing *food* rather than SSBs, the latter of which have no nutritional value. Another one of industry's main arguments against SSB taxes is that they will lead to considerable regional job losses. To this end, industry has supported both testimony and research to make its case. For example, a recent study funded by the ABA and distributed by the ABA-sponsored website, Americans against Food Taxes, reported that a federal 10-cent tax on a 12-ounce serving of SSB could cause the loss of approximately 210,000 jobs in the beverage industry and another 150,000 jobs in related industries (Hahn 2009). However, these industry-sponsored claims do not account for the reallocation of consumer spending toward non-beverage goods and services or the employment impact of increased government spending that would occur from the SSB tax revenues. Previously, tobacco companies made similar job loss arguments in opposition to emerging tobacco control policies, but such claims based on industry-funded studies were subsequently refuted by independent research (Warner and Fulton 1994; Warner et al. 1996).

In Canada, the Canadian Beverage Association (CBA) appears ready to oppose. The CBA immediately responded to a recommendation from the Ontario Medical Association (OMA) for SSB taxes. In a news release titled "OMA Misguided on Call for Taxation: CBA Says Education Is the Answer," the CBA stated its belief that "the Ontario Medical Association's call for taxation, labeling and restrictions on food and beverage products is doing a disservice to Canadians by focusing on a shame and blame strategy rather than focusing on education and information" (Canadian Beverage Association 2012).

TAX POLICY DESIGN

As various jurisdictions consider moving forward with SSB tax policies aimed at obesity prevention, a number of important policy design issues related to *what* to tax, *how much* to tax, *how* to tax, and *who* will tax deserve attention (Chriqui et al. 2013). First, what beverages to include in the tax base will need to be decided. If obesity prevention is the policy goal, then a broad SSB tax base inclusive of all calorically sweetened beverages would be most appropriate. A tax on soft drinks as currently levied by many state-level sales taxes in the United States and the GST/HST in Canada would not be appropriate given that these taxes apply to diet versions. A narrow tax base that included only regular soda, for example, but not other SSBs also would be inappropriate given that it would encourage substitution to non-taxed SSBs and would miss the opportunity to impact consumers of the non-taxed SSBs. For example, research shows that in the United States black children are almost twice as likely as their white counterparts to be heavy fruit-drink consumers (>500 kcal/day) but only half as likely to be heavy consumers of soda (Han and Powell 2013). Further, evidence shows that although regular soda consumption has begun to decline, consumption of isotonic beverages has increased substantially over the last decade; in particular, the prevalence of sports drink consumption tripled among adolescents in the United States between 1999 and 2008 (Han and Powell 2013).

In addition to what beverages to include as part of the tax base, decisions will need to be made on how much to tax. The size of the tax will balance objectives related to changing behaviour and generating revenue that can be used for obesity prevention programs and to offset the costs of obesity. The evidence suggests that although SSBs are generally price elastic, in order for an SSB tax to have any meaningful net impact on body weight outcomes, it would need to be higher than existing SSB sales taxes. And, indeed, most of the current proposals are in the range of a penny per ounce, equivalent to a tax rate of about 20–35 percent.

Next, how to tax is an important consideration. An SSB tax could take the form of an excise, value-added, or sales tax. The key distinguishing feature is that an excise or value-added tax (in most cases) would be levied prior to the consumers' point of purchase and hence be incorporated in the shelf price where consumers make purchase decisions, whereas a sales tax is applied at the point of purchase (Chriqui et al. 2013; Powell et al. 2013; Powell and Chriqui 2011). Evidence shows that taxes included in the posted prices reduce demand significantly more than taxes applied at the point of purchase (Chetty, Looney, and Kroft 2009). Therefore, if the objective of the tax is to change behaviour, an excise tax would be preferable. Excise taxes can be specific or *ad valorem*, but specific excise taxes have a number of important advantages. In particular, since excise taxes are not tied to price, consumers cannot avoid them by substituting to lower-price options. Nor can suppliers get around them with price manipulation or quantity discounting, although these taxes do need to be adjusted for inflation periodically (Chriqui et al. 2013; Powell et al. 2013; Powell and Chriqui 2011).

Finally, who might impose such taxes? In the United States, there have been proposals at the municipal, state, and federal levels. However, municipalities are often pre-empted or limited in their taxation jurisdictions, whereas US states are able to impose both sales and excise taxes (Pomeranz 2012). In Canada, however, provincial taxation is subject to some limitations. Legal analyses have pointed out that the most relevant restriction for SSB tax purposes is that the provincial taxes must be direct (von Tigerstrom 2012). In this regard, there is likely to be a debate surrounding an SSB excise tax given that excise taxes are generally, but not necessarily, considered as indirect taxes (von Tigerstrom 2012).

CONCLUSION

There is considerable momentum and debate surrounding SSB taxes in North America. Support for the use of fiscal pricing instruments to reduce SSB consumption is based on the significant caloric intake from beverages that have no nutritional value, their association with numerous diseases including obesity, and their related medical and other economic costs. Apart from the obvious opposition from the beverage industry, lack of support for SSB taxes also stems from the inconsistent evidence on the impact that SSB taxes may have on body weight outcomes. The evidence on consumption is more robust and suggests the potential for improved health via reductions in the incidence of diabetes and dental caries, for example, even if weight outcomes are not substantially impacted. The least consistent evidence on body weight comes from studies that have relied on existing soft drink taxes as exposure measures that are imposed at relatively low rates, apply to both regular and diet drinks, are not salient, and may be subject to price manipulation across tax jurisdictions by industry. However, some recent evidence (Duffey et al. 2010; Wendt and Todd 2011) that uses price rather than tax measures suggests that higher SSB prices may have a role in reducing body weight outcomes, particularly among near-poor populations (Wendt and Todd 2011). Further, recent simulation estimates that explicitly account for substitution not only to non-SSB beverages but also to other high-calorie non-beverage food reveal significant reductions in body weight as a result of a tax that raises the price of SSBs by 20 percent (Finkelstein et al. 2013; Smith, Lin, and Lee 2010). Nonetheless, further research is needed in this area, particularly studies that can estimate direct impacts on obesity and take advantage of longitudinal data. In particular, researchers need to address the potential endogeneity of prices in order to truly infer how taxes that raise SSB prices might affect consumption and body weight outcomes. It has been noted that as jurisdictions pass large taxes, new data will be available for researchers to assess the effectiveness of these taxes in improving diet and reducing obesity prevalence (Powell and Chaloupka 2009). However, researchers will require a significant data series across jurisdictions over time in order to assess the causal impact of new taxes accounting for individual- or jurisdictional-level unobserved heterogeneity.

In both the United States and Canada, most of the current taxes applied to SSBs are sales taxes and as such are applied at the point of purchase. In addition, these taxes are applied to regular and diet versions of soft drinks. As jurisdictions propose new SSB taxes with the aim of improving public health, there is a clear case to be made for the imposition of broad-based SSB-specific excise taxes rather than sales taxes. In the Canadian context, with respect to indirect versus direct taxes, further debate will be needed to assess the potential limits on provincial taxation jurisdiction.

Another important consideration regarding food and beverage taxes that deserves some discussion is the issue of equity. Indeed, consumption taxes are well understood to be regressive, and equity concerns are paramount when it comes to necessities such as food and beverages. Low-socioeconomic status (SES) individuals often tend to be more price sensitive, and emerging evidence suggests that this also applies to their consumption of SSBs (Wendt and Todd 2011). In addition, low-SES individuals consume more SSBs and suffer disproportionately from obesity and, therefore, would progressively derive benefits from fiscal policies that are aimed at reducing their SSB consumption (Han and Powell 2013; Public Health Agency of Canada and Canadian Institute for Health Information 2011). Most importantly, a healthy alternative to SSBs, water, is free. To help offset the regressive nature of taxes, the revenue raised through SSB taxes could, in part, be dedicated to improving infrastructure that ensures the availability of safe and palatable tap water in all communities nationwide and to providing subsidies for fruits and vegetables directly to low-income individuals or targeted to suppliers in underserved communities. Subsidies could be provided to low-income Americans fairly easily through the Supplemental Nutrition Assistance Program (formerly called Food Stamps). However, in the absence of the infrastructure of a similar broad-scale food assistance program in Canada, a ready delivery mechanism for such subsidies is not as obvious for low-income Canadians.

Finally, it is important to note that SSB taxes should be considered as part of a multipronged policy approach aimed at reducing SSB consumption and improving public health. Indeed, there have been a number of recent policy-related contextual changes in the United States, particularly targeted to youths. For example, between 2003 and 2009 there was a significant reduction in exposure to SSB advertising on television among children (Harris et al. 2011; Powell et al. 2011), and between 2007 and 2009 there was a significant reduction in students' access to soda in schools, although non-soda SSBs such as sports drinks remain widely available (Terry-McElrath, O'Malley, and Johnston 2012). Most recently, in an attempt to help moderate population intake of SSBs through smaller portion sizes, New York City introduced a 16-ounce cup/container size limit for sugary drinks offered by food establishments (New York City Health Department 2013). However, this proposed policy was subject to industry backlash similar to that on SSB taxes and has not been enacted to date due to a successful legal challenge by industry groups including the American Beverage Association (Dolmetsch and Goldman 2013).

Previous efforts to improve public health through anti-smoking campaigns have shown that policies aimed at access, promotion, and price can serve to complement each other. Indeed, it was a combination of tax and related price increases, along with mass media anti-smoking campaigns, smoke-free policies, and other tobacco control interventions that contributed to significant reductions in tobacco use among youth and adults (Chaloupka 2010). Further, tobacco taxes have generated substantial revenues that some states have used to support tobacco use cessation and prevention efforts. Similarly, portions of new SSB tax revenue could be dedicated to support obesity-prevention programs and policies.

In closing, although the United States offers an increasing body of empirical evidence related to SSB taxes, lessons may also be learned from a number of other countries: American Samao, Belgium, Denmark, Finland, France, French Polynesia, Guatemala, Hungary, Latvia, Nauru, and Norway have successfully implemented various forms of SSB taxes, including levies or excise-specific taxes (Chriqui et al. 2013). Analyses of the effectiveness of SSB taxes for improving population health in these countries will be invaluable to both American and Canadian public health policy-makers.

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OLD FEDERATIONS AND NEW SOCIAL RISKS: REPRODUCTIVE HEALTH IN CANADA AND THE UNITED STATES

Melissa Haussman

This chapter examines the ways in which two long-established federal states, Canada and the United States, have layered recent policy issues of women's rights to reproductive services into their federal arrangements on health care.[1] Keith Banting (2006) has asked whether the concept of a "federal welfare state" is a "contradiction in terms." While the paradox may not be inherent, it becomes more apparent when a policy is defined as "controversial," as contraception and abortion have been. As Grogan and Patashnik (2003) have pointed out, "the social construction of groups is at least as important to a program's associated politics as are the technical features of program design" (52).

The question of women's reproductive rights is a perfect example of Jacob Hacker's (2005) "new social risks," as these issues had not yet come onto the radar screen of national governments when they were formulating their large social programs in the early 1960s. National legislatures and courts have therefore had to deal with these issues starting in the late 1960s in the context of existing health-care frameworks. In many

[1] The concept of "layering" new policy ideas and arrangements onto previous ones under the theory of "historical institutionalism" has been addressed by Hacker (2005).

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

cases, their response has been hostile. Despite the national legality of contraception and abortion in both countries, governments have acted at times to circumscribe either the legal provision of these services or their funding. If groups are not equally served across a federal country, this is due to political choices made by different levels of governments.

In both countries, the combination of controversy and federalism has resulted in an uneven, unequal pattern of access. This policy area thus points to a grey area in health-care federalism.[2] In both cases, reproductive services were layered onto a health system beginning its trajectory toward devolution. In neither country has a comparative willingness to provide a national, directly accountable regime for abortion funding and provision been present. The result is a patchwork of access regimes, a patchwork made even more complex by the important roles of private insurance in the sector. The inconsistent access regimes, particularly for abortion, in Canada and the United States point to Hacker's (2005, 42) concept of "policy drift," whereby political institutions do not take account of changing social reality (Banting and Myles 2014; Haussman 2013, 9). Without concerted attempts at federal-provincial action on health policies affecting a majority of the population, abortion provision in particular will remain an example of policy drift. As Gold (2001) has pointed out, "the average American woman spends five years of her life trying to get pregnant and bearing children, and thirty years trying to avoid pregnancy" (1-4). Certainly, policy drift in the area of reproductive health is an issue warranting attention.

This discussion will cover a few distinct components. The first is to lay out the nature of the problem, that is, inconsistent access to and insurance coverage of women's reproductive health services in both federations. The second part highlights decision-making on the balance between national consistency and subnational autonomy at crucial points. These include the introduction of the Medical Care Act in Canada in 1966, the establishment of Medicaid in the US Social Security Act Amendments of 1965, and subsequent legislation purporting to craft a more national framework in each country – the Canada Health Act of 1984 and the 2010 Patient Protection and Affordable Care Act (ACA) of the United States.

In both countries, major periods of health-care change have largely concerned the central question of who will pay for which services. The negotiations have involved different levels of government for the publicly paid components and either investor-owned (commercial) or physician-owned insurance companies for the non-publicly paid portions. This was true in Canada with respect to the Hospital Insurance and Diagnostic Services Act of 1957, covering hospital patients (excepting those in

[2] The term is used by Fierlbeck (2012).

psychiatric hospitals and tuberculosis sanatoria), and the Medical Care Insurance Act of 1966. The Canada Health Act of 1984 was an attempt to ensure more even coverage of physician services across the country by banning extra-billing, which had been allowed in certain provinces under publicly paid insurance. In the United States, the establishment of Medicare for the aged and Medicaid for those below the poverty line through amendments to the Social Security Act required decisions on which services would be covered by the publicly paid framework and which would not. The 2010 ACA left this framework in place, but added strictures about which services private insurance could exempt and which it had to cover. To paraphrase Flood, Tuohy, and Stabile (2006), major sets of national reforms in both Canada and the United States have concerned "which services are in and which are out" of public coverage. Crucial founding choices included (1) the nature of permissible public-sector variations, and (2) the role for private health insurance, among the largest in the OECD. Subnational autonomy in the public and private sectors created a strong pull toward "path dependency" as articulated by Pierson (2001). In both Canada and the United States, insurance markets are mainly defined by subnational risk pools and regulated by subnational governments. Making concerted national efforts of political will even more difficult is the large degree of health-insurance business concentration in states and provinces. Canada and the United States have similar shares of the population using private health insurance coverage: 65 percent in Canada, 72 percent in the United States (Colombo and Tapay 2004, 11-12). They are also correctly described as two of the most decentralized federations in terms of regulatory discretion (Rodrigo, Allio, and Andres-Amo 2009, 10-12). Nevertheless, this discussion will show that, regarding reproductive health, the core problems cannot be simply reduced to the tension between national and subnational jurisdiction in federalism. These intergovernmental questions are politically determined and can be changed by willing governments.

The most significant changes in reproductive health policy came in periods of active engagement by national institutions. In the United States, the key period was 1965–1975, when the federal government promoted public funding and availability of contraception, and the Supreme Court rendered its decision in *Rose v. Wade*. In Canada, the corresponding "policy moments" took place during the 1960s and again in 1988. In both countries, the pre-existing frameworks provide subnational policy discretion, reliance on private health insurance, and the geographic concentration of markets. More recent policy changes can be described as having been "layered" onto the framework, rather than substantially changing it. In historical-institutionalist theory, layering occurs when "institutional structures are highly change-resistant but the political environment is conducive to reform" (Streeck and Thelen 2005, 22-30, as discussed in Haussman 2013). It is possible to expand upon that definition as Streeck and Thelen (2005) have done by stating that layering (gradual change) can occur through "differential growth of private and public sector institutions siphoning off the support of key constituencies for the latter" (especially by the middle class; 23). The new layers do not directly undermine existing institutions. The layering examples for general health-care-system legislation are the Canada Health Act (1984) and the US Affordable Care Act (2010).

THE POLITICS OF CONTRACEPTION

Contraception policy in the United States

The current understanding in the American and Canadian federations is that health matters constitutionally belong mainly to the subnational governments. However, national governments and national courts have stepped in when there has been a subnational variation either in the legality of the health provision or in access to its provision. In the United States, contraception availability was broadened (by reducing its illegality) through successive federal laws and Supreme Court decisions in the twentieth century.[3]

In the United States, the Comstock Act of 1873 criminalized the provision of abortion and contraceptive information through the mails, as well as contraception itself. In 1930, the US Tariff Act included a provision based on the Comstock Act that forbade the importation of contraceptive and abortifacient devices and information. After the Comstock Act, the vast majority of states (40 by 1910) passed laws to criminalize abortion (Doan 2007, 51). Similarly, most states passed laws criminalizing contraception and research on and advertising for it, and many of these laws were still on the books in the 1950s and 1960s. The relevant sections of the 1930 Tariff Act and the earlier Comstock Act were slowly changed, starting with the *One Package* decision of 1936, brought about by the actions of an activist, Margaret Sanger, who imported contraceptives to publicly flout the law. She had also enlisted the help of Dr. Hannah Stone, who worked at one of her clinics in this endeavour. The Second Appellate District Court decided that henceforth it would be legal for physicians to import contraceptives or "materials causing unlawful abortion."[4] Under the Comstock laws, Margaret Sanger's husband, William, was jailed for distributing birth control information, while she was jailed two years later for distributing diaphragms in Brooklyn, New York.

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[3]The Canadian statute was the Criminal Law Amendment Act of 1969, and the US cases were *Griswold v. CT*, 381 U.S. 479 (1965) and *Eisenstadt v. Baird*, 405 U.S. 438 (1972). The US Congress repealed the 1873 Comstock Act nearly 100 years later, in 1971.

[4]The case was *United States v. One Package of Japanese Pessaries*, 86 F 2d 737 1936.

During the interwar years, activist organizations expanded. In 1923, Sanger formed the American Birth Control League. In 1942, the league became the Planned Parenthood Federation of America; and in 1952, Sanger formed the International Planned Parenthood Federation in Bombay. As she wrote in the 1938 *New Republic*, she also helped to form another group, the National Committee on Federal Legislation for Birth Control; this umbrella group, representing "nearly a thousand organizations with approximately twenty millions of members eventually endorsed the lifting of federal restrictions, and 325,000 individual endorsements were filed with Congress." Sanger's coalition included mainstream Protestant clergy, lawyers, doctors, and social workers.

The 1965 case *Griswold v. CT* went to the US Supreme Court due to the actions of Estelle Griswold, executive director of the Planned Parenthood clinic in New Haven, Connecticut (where a state Comstock law persisted), and medical director Lee Buxton, also a professor of obstetrics and gynecology at Yale University. Taking a page from Margaret Sanger's 1920s and 1930s repertoire, the Planned Parenthood clinic essentially invited prosecution by openly disobeying the law. Griswold's actions included "border runs" where couples needing birth control went to neighbouring states, such as Rhode Island and New York (Saperstein 2005). While these states did not have state-level "Comstock laws," they were still subject to the federal law. Second, Griswold and Buxton brought suit against the state law on behalf of two couples who had lost children shortly after birth due to incurable illness. The case went directly to the Supreme Court, which finally knocked down the illegality of birth control for married couples in 1965. The case for unmarried couples was brought in Massachusetts, which also had Comstock laws, by obstetrician-gynecologist Dr. Bill Baird. The *Eisenstadt v. Baird* case was handed down in 1972 by the Supreme Court, but in the interim Congress had invalidated the federal Comstock law on contraception. It has never repealed the anti-abortion provision (Schroeder 1996).

The other related issue was that of public funding for contraceptive distribution, on which Sanger and her allies were episodically successful. It is important to note that these successes came even under the overarching Comstock laws, including in states where contraception was provided through public health departments. In the 1930s, Sanger and others mobilized assistance from prominent African-Americans such as W.E.B. DuBois and Mary McLeod Bethune to raise funding not only from philanthropists but also from county, state, and federal sources to distribute mechanical means of birth control (typically contraceptive jellies or foams) ("Birth Control or Race Control?" 2001). Given the changeover of the US South from Democratic to Republican parties since the 1960s, it is astonishing that North Carolina became the first state to work with Sanger and others on providing birth control in 1937, followed by six other southern states (ibid.). As Oettinger noted in 1960, "After Congress convened in January 1935, President Franklin D. Roosevelt asked it to lay the foundation for the development of safeguards that would prevent or at least reduce the effects of the major hazards threatening family life and individual welfare." The appeal to a combination of progressive social policy and Depression-era concerns about poverty and family size seemed to be a winning combination for states not normally thought of as containing progressive administrations.

While there have often been uninformed efforts to identify Sanger as racist, her own words about this project would seem to dispel this label. She wished to have progressive black ministers support the project, and she did not want white doctors to be the providers as she feared that would turn away clients of colour. As one newsletter of the Sanger Project has noted, the consensus among many working for publicly provided birth control was that "uncontrolled fertility presented the greatest burden to the poor, and Southern blacks were among the poorest Americans" ("Birth Control or Race Control?" 2001). The efforts of the 1930s followed those of the previous decade concerning rural southern whites. Clearly, making birth control and abortion methods available to all is more inclusive than selectively denying access to them.

Between 1965 and the early 1970s, clear political will emerged at the national level to put a contraception-providing infrastructure in place. Despite the persistence of the Comstock regime, President Lyndon Johnson added public funding for contraception (for low-income, married recipients) to his War on Poverty program in 1965. As Rachel Benson Gold (2001), a senior policy analyst at the Guttmacher Institute in the United States wrote, "Since states largely controlled the little funding available under these disparate programs, service availability, eligibility criteria and benefit levels varied widely" (5). In 1970, under President Richard Nixon, Congress passed Title X of the Public Health Service Act to give funding to all who wanted it, not excluding people by income or marital status. As Gold (2001) notes, Title X was the main source of public funding for contraception over roughly the next decade, with about 64 percent of US clinics (some run by governments, some by Planned Parenthood) receiving some level of funding (5). In addition, since 1970 various block grants, Medicaid, and state and local funding have been added to the arena of family policy funding (5–6). In 1972, Congress passed a law requiring each state's Medicaid program to "include coverage of voluntary family planning services and supplies for all beneficiaries of childbearing age" (Gold et al. 2009, 13). Congress passed enabling legislation in 1975 to set up a national network of community health centres, "requiring them to provide a broad range of primary and preventive health services, specifically including family planning" (Gold et al. 2009, 13).

There are important similarities between Title X and Medicaid funding, since both can be used to fund clinical services, including testing and counselling, and contraceptive provision. Title X funds go to clinics applying to deliver contraceptive services and preventive reproductive health care, where the priority populations are low-income and young clients. Services, including pregnancy testing, which is defined as a core service, are provided at Title X–funded clinics free of charge to those below the poverty level and at full fee to those at 250 percent above it, with a sliding scale used in between (Gold et al. 2009, 14). Both public and independent clinics, such as those run by Planned Parenthood, are eligible for Title X funds. Title X is a more "flexible" funding source than Medicaid, the publicly funded insurance program. It also does not require state matches to participate. According to the US Office of Population Affairs (2008), Title X designees vary by state and may include health departments, university hospitals, independent clinics, and "other public and non-profit agencies." In addition to provision of services, Title X can be used to fund infrastructure-related requirements, such as improving staff salaries, providing "culturally or linguistically-appropriate care," or enabling staff to take advantage of further training opportunities (Gold et al. 2009, 13-20). It is also important to note that when passed in 1970, Title X explicitly prohibited its use for abortion funding.

Medicaid is now the single largest source of financial support for Title X–supported centres. As Gold et al. (2009) note, Medicaid contributes 30 percent of the revenue reported by these centres, and Title X contributes 24 percent. "The remaining 46% comes from state and local governments, other federal programs, private insurance, and user fees" (14). Medicaid expanded from providing 20 percent of funding for family planning programs in 1980 to 71 percent in 2009. Title X fell from 40 percent in 1980 to 12 percent in 2006. Nonetheless, Gold et al. (2009) believe that "by providing support to 4300 of the country's 8200 family planning centers – at which 66% of all family planning center clients are served – Title X support remains critical." Additionally, "nine in ten women who would have become pregnant unintentionally in the absence of the comprehensive sexuality education, testing and service provision available in the family planning centers would have been eligible for a Medicaid-funded birth" (17-18). Finally, "about three-quarters of poor women, those who are uninsured, who are black, Latina or born outside the US" consider these centres to be their primary source of care (16).

Both Medicaid and Title X have been continuing targets for social conservatives. Medicaid is not subject to annual budget appropriations since it is located in the "entitlements" part of the federal budget, and expands "as the number of enrollees expands" (Gold et al. 2009, 9-13). Therefore social-conservative lobbying for reductions in Medicaid typically target the state level, where the income level of permissible clients may be increased or decreased through state legislative decisions. US representative Paul Ryan (R-WI), House Budget Committee chair since 2010, has added amendments to turn Medicaid into a block grant in the past two budget years (Bapat 2012). Block grants for social policy funding, which have also been used in Canada since 1977, yield maximum discretion to subnational governments. With respect to Title X, conservative presidents since Ronald Reagan have signed executive orders prohibiting Title X–funded clinics from engaging in discussions on abortion or abortion referrals. When progressive presidents follow, these executive orders are overturned, reinforcing the ability of the clinics to discuss and refer abortion care but not to provide it (National Partnership for Women and Families 2008).

There is considerable variation across states in the range of clients who are served. Prior to the Affordable Care Act's 2010 passage, states wishing to expand their Medicaid coverage above the poverty line (between 133 and 200 percent) had to apply for a "waiver" from the federal government. As Gold et al. (2007) noted,

> In order to receive this waiver, states must demonstrate that this program is "budget neutral" to the federal government; that is, that it cannot cost the federal government any more to pay for these services than it would have cost in the absence of the waiver. States that have maintained these waivers maintain that the cost of providing family planning services and supplies to individuals under the program is lower than the cost of providing care to women with unintended pregnancies. As with the general Medicaid program, there is considerable variation between the states in the operation and scope of services covered under these Medicaid-funded family planning programs. (2)

As of 2009, the majority of states provided Medicaid funding (up to 90 percent) for prescription contraceptives, including emergency contraception. By 2014, 30 of the states had expanded their programs to reach those with at least 185 percent of the poverty level. Nineteen of these had done so under the waiver process predating the ACA, while 11 did so under the state amendment process (a streamlined equivalent to the prior waivers available since the ACA; Guttmacher Institute 2014a).

In addition to subnational autonomy in policy creation, the role of private insurance is another source of unequal access. Private insurers have a much larger degree of autonomy on the issue of contraception than does Medicaid, an issue that women's rights advocates started addressing in the 1990s. In 1998, women on insurance plans and feminist researchers noticed that the newly approved Viagra was covered on private insurance plans, yet contraception was not (National Women's Law Center 2012). The lack of contraception coverage in private insurance, including managed plans, had been on reproductive rights advocates' radar screens since the early 1990s. For example, a 1994 Guttmacher study "found that half of indemnity plans for large groups did not cover any non-permanent contraception and only 39% of HMOs [health maintenance organizations] routinely covered all methods of reversible contraception" (quoted in National Women's Law Center 2012). One year later, testimony was given at a Senate subcommittee that "only 15% of large-group health plans covered all main methods of contraception, and half did not cover any method at all."[5]

In 1997, Senator Harry Reid (D-NV) introduced the Equity in Prescription Insurance and Contraceptive Coverage Act, which was also introduced in the House and accrued bipartisan support in both chambers. The bill's purpose was to require plans insuring "other prescription drugs, devices and services" to cover contraceptives at the same level (National Women's Law Center 2012). The bill never made it into law. However, other actions took place starting in 1998, paving the way for a contraceptive coverage requirement in the 2010 Affordable Care Act. Maryland's state government courageously became the first to require such equal coverage in April 1998, and in the summer of 1998 Congress amended federal employees' health benefits to require contraceptive coverage on a level equal to other prescriptions. In 2000 and 2001, both the Equal Employment Opportunity Commission and federal court cases affirmed that leaving contraceptive coverage out of private insurance plans was unconstitutional sex discrimination. Nevertheless, President George W. Bush tried in his first budget submission of 2001 to remove the contraceptive equity language from the federal employee health benefit plan. However, Congress rejected his attempt, and all of his later budget proposals left the contraceptive language in place (National Women's Law Center 2012). By 2009, 25 states had passed contraceptive equity legislation regarding private insurance plans, and in September 2009 Senator Barbara Mikulski (D-MD) introduced an amendment to the Affordable Care Act bills including this concept. The language was retained in the final Act of 2010.

Opposition to the provision did not relent, and an intense focus by a religious minority was eventually the undoing of part of the ACA's contraceptive mandate. In the Supreme Court's 2014 *Hobby Lobby* decision, the majority decided that the contraceptive mandate clashed with principles espoused in the 1993 Religious Freedom Restoration Act (RFRA). The 1993 legislation had been passed in response to the firing of two Aboriginal drug counsellors who ingested the illegal drug, peyote, as part of a spiritual ceremony. They were denied unemployment benefits by the state and appealed all the way to the Supreme Court, where Justice Scalia wrote the majority opinion upholding the state and lower courts'

[5]Testimony of Jeanne Rosoff, Guttmacher Institute, Senate Labor and Human Resources Committee, subcommittee on Aging, "Women's Health Care in the President's Health Care Plan," 9 March 1994, cited in National Women's Law Center (2012, 3n11).

actions.[6] In response, Congress passed the RFRA, which holds in part that "governments should not substantially burden religious exercise without compelling justification" (Bomboy 2014). The Supreme Court responded in 1997 by limiting the exercise of the RFRA only to federal statutes, and 19 states then passed their own RFRA laws ostensibly to re-establish the framework they felt they had lost in 1997.[7] Of the 19 states, only a handful are non-southern.

In 2012, a law firm concerned with promoting religious rights as human rights began to work on an anti-contraceptive mandate case. The "Becket Fund for Religious Liberty" includes various high-powered conservative lawyers such as Harvard professor (and former US ambassador to the Vatican) Mary Ann Glendon on its board. The case was brought on behalf of three corporations: Hobby Lobby, owned by a Catholic family, based in Oklahoma; the Mardel chain of Christian-owned bookstores; and the Conestoga Wood Specialties Corporation, owned by a Mennonite family based in Pennsylvania. The Becket Foundation used the federal RFRA of 1993 to challenge the contraceptive mandate contained in the 2010 ACA. The case was heard by the Supreme Court since three US federal circuit courts had struck down the contraceptive mandate and two had upheld it (Fuller 2014). In June 2014, the US Supreme Court affirmed that the complainant corporations plus any other "closely-held" corporations in which five or fewer people owned at least 50 percent of the stock did not have to comply with the ACA's mandate.[8]

Many critiques of the June 30, 2014, decision emerged, including the fact that the Supreme Court majority, composed of five of the six men on the Supreme Court, found that for-profit corporations took the place of a "person" whose religious rights were guaranteed in the 1993 RFRA (Visconti et al. 2014). Given that the court has struck down the application of the contraceptive mandate to these companies, others noted that at least 82 other companies in the United States can petition for the same treatment as "closely-held, owned by members of faith-based communities" (Haglage 2014). Similarly, in the unusual practice of reading a dissent from the bench, Justice Ruth Bader Ginsburg noted that the multi-million-dollar Mars candy company could qualify under the majority's definition of "closely-held" corporations. One federal judge estimated that in the aftermath of the *Hobby Lobby* case, at least one-third of US employees will work for companies not subject to the ACA's contraceptive mandate (Liptak 2014). In short, both publicly funded and the vast majority of contraceptive benefits covered by private insurance in the United States are open to the whims of state governments and/or private companies.

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[6] *Employment Division v. Smith*, 494 U.S. 872 (1990).

[7] The US Supreme Court case was *City of Boerne v. Flores*, 521 U.S. 507 (1997); see also Bomboy (2014).

[8] *Burwell v. Hobby Lobby*, 573 U.S. [ ], 2014.

Clearly, the legislative and regulatory dance performed between presidents and Congress and between the federal government and those of the states has of necessity included maximum flexibility to subnational governments. In many ways it is difficult to envision what a "national" social policy in the United States would look like. Basic institutional factors present in the United States that are not present in Canada include the equality of the House and Senate, meaning that both are open to lobbying and each often blocks the other until a compromise can be reached. Also, since the US Supreme Court has held the power of judicial review over most US cases for a far longer time than has been true in Canada, the US Supreme Court has more often exercised its power to interpret clashing principles found in laws and to find some laws unconstitutional. The will of the US Founding Fathers was that separation of powers and federalism would prevent the concentration of one opinion or party in any governmental institution. Despite fears about tyranny of the majority, tyranny by focused, intense minorities is quite possible. The minority co-optation of a single institution or house of a legislature is unfortunately all too easy in the decentralized US system. Given the internal equity between legislative houses at the state and federal levels, and between the legislative, executive, and judicial branches at those levels, opportunities are plentiful to block nationally popular initiatives.

Contraception policy in Canada

When Canada wrote its federal Criminal Code in 1892, it made both abortion and contraception illegal, and even criminalized advertising about contraception. However, it also included a "public good" exemption under which contraception distribution could theoretically be upheld, and activists sought to rely on this exemption in the decades that followed.

Between the 1930s and 1960s, clergy members, doctors, and social workers campaigned to make the need for legal access to birth control clear to the public and governments. In 1924, Margaret Sanger helped form a Vancouver chapter of the Birth Control League. In 1930, philanthropist and business owner Alvin Kaufman formed the Parents' Information Bureau (PIB) to provide non-prescription, manual contraception through the mails and referrals to physicians. Bishop and Bailey (2014) note that soon the PIB was helping 25,000 clients each year. After the creation of the International Planned Parenthood Federation (IPPF) in 1952, Canadian birth-control advocates George and Barbara Cadbury formed the Canadian Birth Control Federation in 1963 and arranged its membership in the IPPF. In 1975, the Planned Parenthood Federation of Canada was founded.[9] In 2005, the federation changed its name to the Canadian

[9] The PIB did not join the Planned Parenthood Federation.

Federation for Sexual Health (2015) to more accurately reflect its current mission and the needs of its younger members.

As in the United States, the issues were fought in the courts. In 1932, Dr. Elizabeth Bagshaw opened the first (illegal) birth control clinic in Hamilton, Ontario. She avoided prosecution, but one of Kaufman's PIB workers did not (Canadian Public Health Association of Canada 2014). Dorothea Palmer, who had been distributing free samples of birth control in the neighbourhood known as Eastview (now Vanier) in Ottawa, was charged and ultimately acquitted. The basis for the Ottawa court's decision was that she was working for the public good and not to make a profit. Indeed, Kaufman had assured all his workers they would be immune from criminal actions under the public good exemption, but he was mistaken (Dodd 1983). In 1960, a pharmacist, Harold Fine, was prosecuted and jailed for selling condoms in Toronto, indicating that local conservatism and inconsistent prosecutions persisted (ibid.).

At Dorothea Palmer's trial, many members of the Protestant clergy testified for the defence. Dodd (1983) notes that the Protestant faiths in Canada and elsewhere had by the 1930s turned to a social gospel framework and had begun to support birth control usage to avoid unplanned pregnancy. For example, at the trial, Reverend T. Summerhayes, secretary of the Toronto Anglican Social Service Council, "affirmed a woman's right to refuse to have children, if her health were not sufficient or if financial circumstances were prohibitive." He quoted from the report of the Lambeth Worldwide Conference of Anglican Bishops in 1930, which "had given guarded approval of birth control" (quoted in Dodd 1983, 419-20). Reverend John Coburn of the United Church of Canada testified that, based on his work in the slums, he saw a great need for birth control. The Reverend W.E. Silcox of Toronto, the general secretary of the Social Service Council of Canada, alluded among many reasons for supporting birth control to the "need to reduce inter-cultural friction" (Dodd 1983, 420).

Another very important part of this movement, as aptly shown by Sethna (2005), included women's liberation members on campuses and associated with campus health movements in the 1960s, especially in Toronto and Montreal. These members were helped by empathetic physicians on staff at the university health clinics. As with clergy confronting the issue of families unprepared for more children, so too did university-based physicians regarding student health.

As in the United States, many ironies were found between the blanket illegality of contraception that persisted until the end of the 1960s and the quiet, sporadic access to manual forms of contraception from the 1930s onward and the pill beginning in the early 1960s. The US Food and Drug Administration approved the pill in 1960 and Health Canada followed in 1961 – both decisions took place while contraception was still officially illegal. Dedicated pro-contraception groups, including the IPPF, worked with the medical and legal communities to get the need to repeal the contraceptive law in front of national policy-makers. In the 1960s, other groups such as Planned Parenthood and the Canadian Medical Association pushed for decriminalization of birth control. As Sethna (2005, 285) shows, in 1968 certain university health centres began quietly providing the pill in individual cases, even though repeal of the relevant criminal code sections did not come until 1969 under the Trudeau Liberal government.

The Quebec government started funding the organization SERENA (covering the "rhythm" method of birth control only) in 1967, and the BC government began funding Planned Parenthood in 1969. From 1971 to 1976 there was a relatively good level of federal and provincial funding for Planned Parenthood clinics. Thus, low-cost birth control was available due to public funding. After that time, however, the federal government cut its funding for non-government providers (Bishop and Bailey 2014).

In 1969, Parliament finally decriminalized contraception by passing amendments to section 251 of the Criminal Code. From that point on, the debate swirled not around the legality of contraception, but around funding and access issues, especially for oral contraceptives. While the Canadian health-care system was expanded in terms of service coverage in the 1950s and '60s, the core public health insurance program did not cover prescription drugs. The combination of women's rights to contraception and abortion, lack of national public funding for prescription drugs and pharmacist fees, and shrinking federal health transfers to the provinces have created the strange situation of women having rights but unequal access. In addition, the decision of the federal government to move to a series of block grants for social transfers starting in 1977 increased the difficulties involved in shaping coverage.

Canadian provinces have developed separate programs to cover prescription drugs, and can choose how expansionist or stingy they wish to be in terms of the range of income groups who are included in the benefits. Their programs tend to be limited to those below the poverty line and seniors, and the rest of the population therefore requires access to private coverage for affordable prescriptions. In 2002, a study conducted on behalf of the Canadian Life and Health Insurance Association showed that 58 percent of Canadians had private health insurance and another 13 percent had both publicly and privately paid insurance (Fraser Group/Tristate Resources 2002, 11). The same study showed that of the 2 percent of Canadians without any form of insurance for drug costs, all lived in the four Atlantic provinces, comprising 24–30 percent of the population (Fraser Group/Tristate Resources 2002, 3).

Morgan et al. (2009) have conducted studies comparing the commonality of drugs in the public formularies across Canada. One study pointed out that while the drugs listed on the public formularies represented 77 percent of all prescription drug sales in Canada, interprovincial formulary correlations were low to moderate, and contraceptives were among the lowest. Only about 30 percent of the 796 drugs received unrestricted coverage (Morgan et al. 2009, e163). For low-income women facing a potential move between provinces, the lack of inter-correlation between provincial formularies can be daunting. Women receiving public drug benefits in Canada are at risk of losing access to their preferred contraceptive method based on either a move or a provincial decision to change what is covered on the formulary. The 2002 Contraception Study in Canada showed that the Common Drug Review, the federal board advising provinces on which pharmaceuticals to put on their formularies, "has recommended against the inclusion of the contraceptive patch and the vaginal contraceptive ring on provincial drug formularies" (Black et al. 2009, 634). Even worse, Aboriginal women, whom the study said "had the highest abortion rate in Canada," lack universal access to methods under the Non-Insured Health Benefits Program. The contraceptive rings and patches are either limited-use medications or an exception drug (the latter), which can "delay or prevent access to these methods" (Black et al. 2009, 635). Finally, the Quebec formulary covers one type of IUD (the levonorgestrel-infused system) but not the more common copper one.

With respect to private coverage, even a designation of "behind the counter" for a contraceptive can be problematic. This was shown when in 2005 Health Canada approved Plan B emergency contraception for non-prescription status (Canadian Women's Health Network 2005). On one hand, this made the medication more available by law; on the other, it drove up the price, since "behind the counter" means additional counselling fees. Although the National Association of Pharmacy Regulatory Authorities gave its approval to allow pharmacies to move Plan B to over-the-counter status in 2008, two provinces do not conform to this framework. Saskatchewan still keeps it behind the counter, and Quebec still requires a prescription to access it, meaning more fees faced by clients.[10]

In summary, the vast majority of contraceptive benefits in Canada are processed through the private sector, under employer or individual insurance. In certain ways, the system in Quebec parallels that in the US states that require contraceptive equity in insurance policies, since Quebec requires its residents to adopt pharma insurance, administered by the private sector. In other provinces, the situation is similar to that of the United States where certain benefits may or may not be offered. Clearly, Aboriginal women on reserves have the worst situation based on being geographically distant from providers and having the federal government insurance plan.

[10] Plan B Canada website, www.planb.ca, accessed 12 January 2015.

THE POLITICS OF ABORTION: NATIONAL DECISIONS AND GOVERNMENT BACKLASH

In contrast to the contraception case, national legislatures in Canada and the United States have been unwilling to impose progressive, nationally based frameworks for abortion access. The big "first" universalizing steps were taken at the national level by the Parliament of Canada in 1969 and later by Supreme Court decisions in both countries. But these national decisions were layered onto a system of policy decentralization in health, which allowed considerable political scope for both public and private funders who wanted to limit access to abortion or did not want to fund abortion procedures.

In Canada, the 1969 Omnibus Criminal Code amendments established a system in which abortions could be performed in a hospital, based on the consent of a therapeutic abortion committee (TAC) composed of three doctors (Haussman 2005, 81–86). But this system did not generate adequate access to the procedure, setting the continuing challenges by activists. The famous Supreme Court decision on abortion in *Morgentaler* (1988) involved three concurrent opinions. The bottom-line agreement was that the therapeutic abortion committee system was largely unworkable and deprived a woman of her section 7 Charter rights to "life, liberty and security of the person." The *Morgentaler* decision concurred that the TAC system deprived women of a consistent defence against illegality since hospitals and provinces varied considerably in their willingness to establish physician committees and perform abortions. As we shall see, not much has changed since then. In the United States, the Supreme Court's *Roe v. Wade* decision of 1973 established a trimester system for determining "compelling state interest" in regulating the abortion procedure, and concluded that there was no such compelling interest in the first trimester. As we shall also see, however, determined anti-choice activity at the state levels – in passing laws to bring to the federal court system – has switched the balance between a woman's right to privacy and the state's "compelling interest" in intervening in that right.

Canadian abortion politics since *Morgentaler* (1988)

Provincial opposition to the *Morgentaler* decision did not take long to emerge. Two months after the release of the Supreme Court decision, the Social Credit cabinet of Premier Van der Zalm in British Columbia tried to advance the argument that unless an abortion were done to save a woman's life, it was not "medically necessary" and thus not open to public insurance. Unsurprisingly, a lawsuit was brought against this logical fallacy, primarily by the BC Civil Liberties Association. As Dunsmuir (1998) has noted, the chief justice of the BC Supreme Court "took judicial notice of the fact" that legal abortions could only be performed in a medical setting.

Since then, there have been two major routes for provinces controlled by anti-choice governments that wished to oppose the *Morgentaler* decision. The first is to make it as difficult as possible for independent, non-hospital clinics to operate in the province. The *Morgentaler* decision opened up the possibility for legal abortions to take place in clinics such as the one operated by Dr. Morgentaler. Nova Scotia specifically wished to keep Dr. Morgentaler and his clinics out. The Buchanan Conservative government passed in June 1989 legislation listing a group of procedures that had to be performed in hospitals, including abortion. The law stated that procedures performed outside hospitals would be illegal (as well as unfunded by the public sector). This central claim clearly contravened the *Morgentaler* decision, and there were numerous legal challenges brought to the Medical Services Act (Dunsmuir 1998). The first two sets of court hearings incorrectly centred on whether the province was competent to pass legislation affecting the performance of medical procedures, which it clearly was. However, in 1990, the Provincial Court concluded that the part of the Act involving criminal procedures was ultra vires of the province, and the legislation was struck down, a decision that was confirmed at higher levels.[11]

The third province to try to revisit the *Morgentaler* ruling was New Brunswick, which passed legislation in 1985 requiring the provision of abortion to be in hospitals only, as approved by the minister of health. Regulation 84-20 of the provincial Medical Services Act kept most of the vestiges of the TAC system (declared unconstitutional in 1988), requiring that two physicians sign off on the procedure as "medically necessary." New Brunswick was an outlier among provinces as well in requiring a specialist, not a general practitioner, to perform the procedure ("New Brunswick Abortion Decision Lifted" 2014). As in Nova Scotia, the courts concluded that the intent was to prevent Dr. Morgentaler from establishing a free-standing clinic. In September 1994, the Court of Queen's Bench found the New Brunswick law unconstitutional, a decision that was reaffirmed by the New Brunswick Court of Appeal (cited in Dunsmuir 1998). Finally, in 2014, the larger legislative framework was partially rescinded, with newly elected Liberal premier Brian Gallant committing to improving abortion access in the province. The two-doctor sign-off requirement was struck, but the province still requires that abortions be performed in its two participating hospitals to be funded by medicare. As Professor Wendy Robbins noted, the premier's action "caught New

[11] In July 1991 the Nova Scotia Court of Appeal affirmed the Provincial Court's finding, as did the Supreme Court of Canada in 1993.

Brunswick up to date with the 1980s" (quoted in "Morgentaler's Old Fredericton Clinic to Reopen" 2015).

The second major strategy used by provinces to limit abortion provision has been to de-fund it, especially outside of hospitals. As Erdman and Fowler noted in a 2008 letter to the interprovincial billing committee, directly after the *Morgentaler* decision of 1988 all provinces except Quebec and Ontario restricted or withdrew funding for abortion under their insurance plans.[12] Federal Liberal health minister Diane Marleau issued a letter of clarification in 1995 under the Canada Health Act, defining abortion as a medically necessary service. She also acknowledged the vehicle by which provinces were restricting funding for abortions outside of hospitals; that is, the provinces were amending health services acts in order to deny provincial funding for clinic abortions. The amendments usually took the form of imposing "facility fees," which as she noted, were not defined in federal or provincial law.

Under the Canada Health Act, the federal government cannot issue directives to the provinces concerning the delivery of health care. The federal government can only withhold some of its financial transfer to provinces it deems are contravening the terms of the Act. According to the 2010–11 *Canada Health Act Annual Report* (Health Canada 2011), it is possible to find two periods of federal-provincial relations in terms of withholding monies under federal transfers. The first went until 1987, when all withheld monies were refunded back to provinces after user fees and extra billing were said to have stopped. The second was from 1987 to 2012 when provinces apparently became more sophisticated at walking the line between imposing user fees that would contravene the Canada Health Act and those that would not. Provinces listed in the report as having funds withheld regarding user fees at private abortion clinics included New Brunswick, Nova Scotia, Alberta, and Newfoundland and Labrador. Similarly, court cases were brought in Manitoba and Quebec, in which the interwoven issues of facility fees imposed by provinces and undue waiting times for the medically necessary service resulted in overturning of the provincial legislation. In Quebec, it also resulted in women being refunded all facility fees they had paid between 1999 and 2006 (Cousins 2009; Richer 2008, 9-10; Rodgers 2006, 42n40).

In summary, the Canadian situation regarding abortion shows the uneasy place in which women live, between an attempt at nationalizing abortion rights in 1988 and the considerable provincial autonomy

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[12] J. Erdman and D. Fowler, "Therapeutic Abortion as an Excluded Service under the Interprovincial Reciprocal Billing Agreement," letter, 22 August 2008. In the letter, the authors cited M. Mandel (1989), *The Charter of Rights and the Legalization of Politics in Canada* (Toronto: Wall and Thompson), 292n41.

in setting funding for services and professional licensing for doctors. It is an oft-repeated statistic that as of 2006, only 16 percent of Canadian hospitals performed abortions (Shaw 2006). As Sethna and Doull (2013) reported, the number of hospitals performing abortions in Canadian provinces ranges from zero (Prince Edward Island), to one each in Nunavut and the Yukon, to a high of 31 in Quebec and highest in Ontario at 33. Free-standing clinics range from zero in PEI, Nova Scotia, Saskatchewan, and the three territories to a high of eight in Ontario and nine in Quebec (53). Sethna and Doull found from their study of 1,186 women that many reported having to travel great distances to obtain an abortion, many had to pay the fees for travel and/or clinics up front, and the majority of these women were in households earning less than $30,000 per year (54-55). Clearly the vast Canadian geography with its limited health-care framework imposes a disproportionate burden on women of slimmer means.

One heartening response to long-term intransigence in a couple of provinces has been feminist campaigns to shame the existing power structure (particularly in Liberal-led provinces, since the 2014 announcement by the federal leader, Justin Trudeau, that all party candidates for election to the House of Commons must be pro-choice). In the summer of 2014, the Morgentaler clinic in New Brunswick closed its doors due to lack of provincial funding. But in January 2015, it was announced that a new clinic, "Clinic 554," would be located inside the old Morgentaler facility. The clinic was made possible by crowd-sourcing funding, led by the groups Reproductive Justice New Brunswick and Fredericton Youth Feminists ("Morgentaler's Old Fredericton Clinic" 2015). Unfortunately, the clinic will still need private funding for abortion procedures since the province will not use its funds to cover them outside the hospital.

In Prince Edward Island, the last TAC-approved abortion occurred in 1982 (MacQuarrie, MacDonald, and Chambers 2014, 8). But in 2014, a number of actions were used to confront the Liberal premier with facts about abortion. A well-regarded conference on access to reproductive justice was held on the island in August, and a coalition of pro-choice groups demonstrated outside the provincial legislature, Province House, in November ("Abortion Clinic Subject to Political Interference" 2014). It was also revealed in the fall of 2014 that a doctor, Rosemary Henderson of the Queen Elizabeth Hospital in PEI, had been working on establishing a part-time abortion clinic, but was stopped by the Liberal government, including its health minister (ibid.).

Finally, November 2014 also saw a merger between the three major national pro-choice groups in Canada: Canadians for Choice, the Canadian Federation for Sexual Health (formerly Planned Parenthood of Canada), and Action Canada on Population and Development, which has in the past has focused on international issues (Payton 2014). The idea behind the merger has been to coordinate pro-choice activity in the face of determined attempts to chip away at reproductive rights in Canadian domestic social and foreign policy.

US abortion politics since *Roe v. Wade* (1973)

As in Canada, the overall strategy of anti-choice movements in the United States has been to try to narrow the definition of "medically necessary" abortions so that they can almost never be performed.[13] Indeed, many states never struck their pre-*Roe* statutes, waiting for an auspicious time to revitalize them. *Roe v. Wade* had held that in the first trimester, the state had no compelling interest in intervening in the "right to privacy" of a woman when conferring with her doctor on the issue (except to require that a licensed doctor perform the abortion). In the second trimester, the state could intervene to save the life of the mother and, in the final trimester, intervene on behalf of fetal life. The judgment was written by Justice Harry Blackmun, a Republican moderate, on behalf of an all-male Supreme Court.

The initial resistance concerned funding of abortions under Medicaid. Shortly after *Roe*, anti-abortion legislators worked to define the conditions and requirements of "medically necessary" and "therapeutic" versus "non-therapeutic" abortions. The *Hyde* budget amendment of 1976 contained language prohibiting Medicaid funding for "non-medically-necessary" abortions. The only "medically necessary" abortion was defined at the federal level as saving a woman's life. Numerous states also passed legislation around the time of *Roe* to distinguish between a "therapeutic" abortion, which could be publicly funded, and a non-therapeutic one, which could not. This distinction had nothing to do with medicine and everything to do with the politics of a state in which a woman resided. In the United States, neither public nor private insurance has ever been required to cover abortions.

Many states imposed "TAC" requirements for women wishing to access Medicaid-funded abortions; for example, Pennsylvania required three doctors to sign off on the request (Boonstra 2013). Other states expanded the single exemption given by the federal *Hyde* legislation, adding language to fund abortions in case of rape and incest, which was added to the federal budget language in 1997 (ibid.).[14] Very strangely, the

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[13] See for example the discussion of Focus on the Family and the Centre for Bioethical Reform, both of which started from US-based organizations, in Haussman and Rankin (2009).

[14] Boonstra (2013) notes that the 1997 language on Medicaid funding added exemptions for federal funding in cases of physical, but not mental harm, "where a women's life was threatened by a physical disorder, physical injury or physical illness, including a life-endangering physical condition caused by or arising from the pregnancy itself" (3).

same procedure would be designated "non-therapeutic" under federal rules while possibly being in the "therapeutic" category at the state level. Boonstra (2007) has noted that by 2007, a decade after the federal *Hyde* language was changed, 17 states had the "expanded" language, allowing Medicaid funding in cases of rape and incest in addition to saving the mother's life. As of 2013, there were still only 17 states in this category. Many of them still require at least one doctor to sign off.

A network of pro-choice providers has noted that there are abortion funds (obtained from pro-choice donors) to help women below the poverty line access Medicaid-funded abortions, since Medicaid usually does not cover the whole fee. While helpful, the problem is that in the United States, as in Canada, for women who must travel to access abortion services, the funds are available only on a reimbursement basis (National Network of Abortion Funders 2014).

According to the historical-institutionalist framework, *conversion* applies when the pre-existing structures are changed by new alliances toward new ends (Hacker 2005, 42; Haussman 2013; Thelen 2003). While Title XIX of Medicaid had been passed in 1965 to enable public funding for important medical procedures for those below the poverty line in certain categories, *Hyde*'s 1976 budget amendment made Medicaid much less flexible for those wishing to end their pregnancies. Unsurprisingly, since the *Hyde* amendment converted the Medicaid public funding infrastructure to a decidedly anti-choice one, and *Roe v. Wade* and later decisions were layered onto state autonomy in abortion provision and funding, the status of abortion policy in the United States is one of policy drift.

States legislate and enjoy considerable latitude in fabricating a spectrum of restrictions. The 1989 *Webster* case upheld the Missouri law forbidding the use of public funding for institutions where abortions were performed or even discussed as part of referrals, and requiring fetal viability tests when the pregnancy was deemed to be 20 weeks advanced. Such restrictions proliferated after the 1992 *Casey* decision. In that judgment, Justice O'Connor stated that she was "upholding the core of *Roe*," especially concerning questions about state interference in the first trimester. But at the same time, the judgment declared the trimester system "unworkable," largely due to advances in fetal viability, and affirmed "the principle that the State has legitimate interests from the outset of the pregnancy in protecting the health of the woman and the life of the fetus."[15]

The Pennsylvania law at issue in *Casey* included restrictions such as requiring spousal or parental consent, already struck down by the court in the *Planned Parenthood of Central Missouri* case 16 years earlier. *Casey* upheld a 24-hour waiting period between a woman's first encounter with

[15] *Planned Parenthood of Southeastern Pennsyvania v. Casey*, 505 U.S. 833 (1992), accessed at the Legal Information Institute, www.law.cornell.edu.

the physician, in which she was given information on abortion and fetal development, and the appointment where she would have to sign an informed consent document. As shown by the Guttmacher Institute in March 2014, 26 states require at least a 24-hour waiting period and 17 states mandate pre-abortion counselling that includes non-medically-proven information, such as speculations about breast cancer and mental health complications on the part of abortion recipients (Guttmacher Institute 2014b). As the Guttmacher information also shows, 46 states allow providers to refuse to participate in abortion services, and 43 states allow institution-wide refusal (only 16 of those states limiting the institutions to private or religiously based ones). Also, eight states restrict coverage in private insurance, limiting it to the strictest federal *Hyde* definition used between 1976 and 1997, which is life endangerment only. However, most states allow additional purchase of private insurance for abortion coverage (Guttmacher Institute 2014b).

Asserting federal power? The CHA and the ACA

Did the Canada Health Act (1984) and the Affordable Care Act (2010) change the underlying decentralized nature of the health-care structures? Overall, neither of these important Acts fundamentally changed the national-subnational bargain that had been struck in each country since the 1940s. While the Canada Health Act provided for financial penalties to induce provinces to stop extra-billing and user fees, there is no specific language in it to force provinces to fund abortion clinics at the maximum possible level. The same is true for the US Affordable Care Act. The terms of the CHA do not lend themselves to litigation, while the provisions of the ACA do. But abortion clinic funding has been litigated in Canada on the basis of the Charter of Rights and Freedoms, such as in Manitoba.[16] While abortion jurisprudence was a logical next step after cases on contraception access in both countries, each country had had – at least at times – a national system of funding for contraception. This has never been true for abortion and it is unlikely it ever will be.

In both countries, the vast majority of women access contraceptive benefits through private insurance, whether employer-administered or individually purchased. In the US case, because of senior senator Barbara Mikulski's efforts, contraceptive care was added into the Affordable Care Act and was then protected against congressional conservative incursion by the administration. By the time of the Mikulski amendment of 2009, half of the states required contraceptive funding by private insurance companies, and the Federal Employees' Health Benefit Plan had been

[16] *Doe et al. v. The Government of Manitoba*, [2004] MBQB 285, cited by Flood, Tuohy, and Stabile (2006, 40n42).

amended to do so in the 1990s. In effect, the Affordable Care Act stopped private insurance plans from using the "pre-existing condition" exclusion, which often affected pregnant women. It also requires coverage of preventive care for women in both public and private care, something that had partially happened but was not complete. While Medicaid expansion up to 133 percent of the poverty level for publicly funded health services was part of the ACA, this mandate did not survive the 2012 Supreme Court case.[17]

Moreover, the ACA allows states to exclude abortion coverage from the exchanges (marketplaces) they set up, which consist of private companies. Thus, we can say that ultimately abortion even more than contraceptive policy in both countries is likely to follow Thelen's (2003) and Hacker's (2005) notion of drift, whereby the legal frameworks do not keep up with changing social circumstances. Unfortunately, in both countries, the political decision to allow insurance to cover abortion is still mainly lodged at the subnational level, yielding a highly variable framework.

This discussion has demonstrated the gap between the constitutional and statutory promises of women's equal treatment before and under the law on one hand, and the decentralized, variable nature of service provision and insurance coverage on reproductive matters on the other hand. The gap is simply too large in both Canada and the United States. This chapter has shown that in both countries, Supreme Courts and national legislatures have added to implied and enumerated federal powers on social policy issues, particularly since the second half of the twentieth century. But in the language of historical-institutionalist theory, both federal governments layered their national frameworks for contraceptive funding onto a decentralized health insurance system.

The specifics of the outcomes do differ between the two countries. Paradoxically, Canadian women with private insurance are in a somewhat worse position than their US counterparts. Private insurance coverage depends on the employer or individual, with no public mandate for contraceptive coverage. The post-*Hobby Lobby* climate since June 2014, however, makes the claim of greater US coverage less clear. Conversely, US women are worse off than their Canadian counterparts, given the conservative conversion of Medicaid on public abortion funding and the post-*Roe* decisions that allow the states to thwart women's access to Medicaid funding based on a stated interest in "encouraging childbirth." Despite these different details, however, drift is likely to be the continued order of the day, especially on abortion policy. Both federal governments have the constitutional, taxation, and spending tools to make more force-

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[17] *National Federation of Independent Business v. Sebelius, Secretary of Health and Human Services*, 567 U.S. 2012.

ful decisions in this area of social policy, but it is difficult to forecast the political will needed to realize this scenario.

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C

ECONOMIC POLICY

THE MACROECONOMICS OF DOWNWARD NOMINAL WAGE RIGIDITY: A REVIEW OF THE ISSUES AND NEW EVIDENCE FOR CANADA

PIERRE FORTIN

The French engineer and mathematician Maurice Allais, who laid out the foundations of modern general equilibrium and welfare theory in the 1940s, chided contemporary economics for what he called its love story with mathematical charlatanry, its econometric savagery, its ignorance of economic history, and its lack of a broader social science culture (Allais 1989). Tom Courchene has avoided all these pitfalls. For 40 years now, he has contributed to an incredible number of areas, from monetary and fiscal policy to taxation, social policy, trade policy, financial regulation, competition policy, constitutional matters, human capital, pensions, environmental issues, regional growth, First Nations' future, and more. His thinking has been influential in *all* of these areas and in *every* part of the country and beyond. He is not just another economist. He is a national treasure. And he is an important reason that Queen's University has remained a dominant Canadian institution in the study of public policy over the past quarter century.

I am grateful to George Akerlof, Paul Beaudry, Vincent Belinga, Allan Crawford, Ramdane Djoudad, Karine Dumont, Lynda Khalaf, Kevin Moran, Christopher Ragan, Jimmy Royer, Tim Sargent, Wayne Simpson, Marcel Voia, and Beth Anne Wilson for their help. The views expressed are purely my own.

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

Between 1975 and 1983, Tom wrote five monographs on the conduct of Canadian monetary policy under then-governor Gerald Bouey. This conference provides me with the opportunity to return to a key concern in this area, namely, the macroeconomic trade-off between inflation and unemployment that is crucial for the design and conduct of monetary policy, and that we commonly call the *Phillips curve* (after Phillips 1958).

I proceed as follows. First, I state the main message of the economic literature on the costs of inflation, which is that these costs definitely do exist, but that they remain difficult to quantify for rates in the 0 to 10 percent range. The second section adds the concern that aiming for a very low rate of inflation, as Canada has done in the last 20 years, carries various risks, such as debt deflation, reduced flexibility of interest rates, and downwardly rigid nominal wages. In the third section I explain how, in contrast to the classical assumption of full wage flexibility, money illusion leading to downward nominal wage rigidity generates a long-run negative relation between inflation and unemployment. This implication, underlined by James Tobin in 1972, would mean that permanently low inflation can be bought only at the cost of permanently high unemployment. The fourth section reviews the evidence that this resistance is extensive and persistent in advanced economies, including Canada, but points out that the literature is still uncertain about the macroeconomic significance of downward nominal wage rigidity. Sections five to eight are concerned with this question of macroeconomic relevance, particularly in the Canadian context. I present the theoretical details of the different implications of the competing classical and Tobin views of the long-run Phillips curve, and then review the theoretical and empirical objections to the macroeconomic relevance of downward nominal wage rigidity found in the literature. Finally, the ninth section presents new macroeconomic evidence on the matter based on Canadian macrodata for the 56-year period 1956–2011. This evidence suggests that the real world is more Tobin-like than classical. It implies that the permanent unemployment costs of aiming for a low rate of inflation such as 2 percent could be significant.

HIGH INFLATION DEFINITELY HAS COSTS, BUT THEIR EXACT MAGNITUDE REMAINS UNCERTAIN

Canada first set an official inflation target in February 1991. The minister of finance and the governor of the Bank of Canada jointly announced that the Bank would aim to reduce consumer price index (CPI) inflation to 2 percent per annum by the end of 1995 (Bank of Canada 1991). In fact, inflation declined to 2 percent by the end of 1992, much in advance of schedule. The agreement between the minister and the governor was renewed in 1995, 2001, 2006, and 2011. Each time, the official target was kept at 2 percent, with a control range of 1 to 3 percent around it. The

Bank of Canada has successfully fulfilled its commitment. Between 1995 and 2012, Canadian CPI inflation has averaged exactly 2.0 percent, with a mean deviation of 0.7 point from target.

The point of aiming for a low and stable rate of inflation is that high and variable inflation has costs. People dislike inflation. They believe inflation erodes their purchasing power and redistributes income and wealth arbitrarily and unfairly (e.g., Shiller 1997). Partly, this reflects money illusion, since we know that increases in price inflation are usually covered by increases in nominal wage growth of similar orders of magnitude. Nevertheless, the public is not so stupid. As Modigliani (1986) pointed out,

> From the justified proposition that the level of money and prices is neutral in the long run, one cannot go straight to the conclusion that *changes* in money and the level of prices cannot produce real effects for extended periods of time [as this] would ignore some essential facts of life, such as the existence of nominal contracts, of nominal institutions, and of nominal habits of thinking and carrying out economic calculations. (51)

There is a vast literature dealing with the distortionary tax that inflation imposes on holding cash, the uncertainty and confusion it generates about present and future relative prices, and the harm it does to saving and investment due to its interaction with a less-than-fully-indexed tax system (e.g., Bailey 1956; Feldstein 1997; Fischer and Modigliani 1978; see Ragan 1998 for a survey of these problems in the Canadian context).

The picture that emerges from this literature is that actual episodes of inflation distort resource allocation, generate unwanted shifts in income and wealth, and hurt economic growth. No wonder people hate it. However, its costs have remained difficult to quantify with precision in the interval between 0 and 10 percent (e.g., Barro 1997; Bernanke et al. 1999; Sala-i-Martin 1997), so that controversy remains about the precise rate of inflation to target in this low range. Whatever the case may be, beginning in 1990 a number of countries went ahead and committed to achieve specific inflation targets, usually between 2 and 3 percent. Among advanced industrial countries, New Zealand was the first, followed by Canada, the United Kingdom, Sweden, Finland, Australia, and others. Many Central European and Latin American countries followed suit. The United States joined the group of official inflation targeters only recently, in 2012, but Mankiw (2001) argues that it had in fact been engaged in "covert inflation targeting" since the early 1990s.

The idea of reducing the inflation target below 2 percent has even received some support from experiments by Bank of Canada researchers who have constructed artificial, simulation-based models that have identified benefits from a lower, or even negative, target rate for inflation. However, the Bank's management has recognized that their results "remain subject to considerable uncertainty," and that their models "typically abstract from the costs and risks associated with very low rates of inflation" (Bank of Canada 2011, 10).

AIMING FOR A VERY LOW RATE OF INFLATION HAS RISKS

What are the risks of maintaining the rate of inflation at 2 percent or less? First, there is an upward bias in the measurement of the CPI. In the United States, CPI inflation would seem to overstate the true rate of inflation by about 1 percentage point per year (Boskin et al. 1996; Lebow and Rudd 2003). In Canada, the estimated upward bias is 0.5 point per year (Crawford 1998; Sabourin 2012). There is no real problem here. As long as the rough magnitude of this measurement bias is known, the US Federal Reserve and the Bank of Canada can readily take it into account in setting the target rate of inflation.

A more serious risk arises from the fact that setting the inflation target close to zero increases the probability of tipping the economy into a Fisher-type "debt-deflation trap." Fisher (1933) famously argued that by increasing the real value of nominal debts, deflation can create liquidity and solvency problems for borrowers and trigger a credit contraction and a recession, which can degenerate into a prolonged vicious circle. Periods of debt deflation have occurred during the Great Depression and, more recently, in Japan (Bernanke and James 1991; Eggertsson and Krugman 2012).

A third risk stems from the zero lower bound to which interest rates are subject (e.g., Summers 1991). Since, on average, a low rate of inflation will induce low interest rates, the fact that nominal interest rates cannot be negative implies that a lower and lower rate of inflation leaves less and less room for monetary policy to reduce interest rates in the face of adverse shocks. Hence, very low inflation increases the probability that the economy will remain stuck in a recession or even in a liquidity trap for an extended period.

Until recently, many central bankers did not take the zero-lower-bound risk very seriously. In 2001, for example, the Bank of Canada reported that "most researchers would estimate the probability of hitting the zero floor as negligible for an inflation target of 2 per cent" (Bank of Canada 2001, 2). However, the experiences of many advanced countries since 2008 has led the Bank to revise its judgment and recognize that the zero lower bound on interest rates has become "a binding constraint for many central banks, which were then forced to use unconventional monetary policy tools, such as extraordinary forward guidance, quantitative easing and credit easing," adding that the cost, reliability, and effectiveness of these new, still unconventional, policy tools remain uncertain (Bank of Canada 2011, 12).

Summers (1991) concluded his analysis by suggesting that the optimal inflation rate might be "as high as 2 or 3 percent" (627). Later, in discussing the Japanese slump, Krugman (1998) and Bernanke (2000) suggested that the Bank of Japan seek to maintain an inflation rate in the 3–4 percent range. More recently, IMF economists concurred that the zero-lower-bound constraint raises the question of whether the inflation target should be raised, perhaps to 4 percent (Blanchard, Dell'Ariccia, and Mauro 2010). Some economists continue to think that the 2 percent target is too high, but the 2008 crisis has led others to express the opposite worry that it could be too low.

There is a fourth risk from setting the inflation target at too low a level. Various manifestations of money illusion could generate a long-run trade-off between inflation and unemployment at low rates of inflation. For economic welfare, this would have the implication that keeping inflation at a target rate such as 2 percent or less would require that the unemployment rate be maintained at a permanently higher level than it would have to be if the inflation rate target were, say, 3–4 percent. Permanent unemployment has permanent costs.

Most central bankers believe that there is no such trade-off. They think that the rate of inflation monetary policy chooses to aim for has no lasting influence on the rate of permanent unemployment at which the economy eventually settles. According to this view, which I will henceforth call the "classical" view, a unique equilibrium rate of unemployment would exist, and it would not depend on nominal wages and prices or their rates of change, but only on real factors such as relative prices, productivity, monopoly and union power, demographics, taxation, and social programs.

WHETHER THERE IS A LONG-RUN TRADE-OFF BETWEEN INFLATION AND UNEMPLOYMENT MATTERS ENORMOUSLY FOR ECONOMIC WELFARE

The classical, no long-run trade-off view was popularized by Milton Friedman (1968) and Robert Lucas (1973). Its policy implication is that a central bank can reduce inflation as low as it wishes by tightening monetary conditions so that unemployment first rises above its equilibrium value and inflation declines as desired. Then, once the job of disinflation is done, monetary conditions are eased back. This allows unemployment to return to the same equilibrium level as prevailed before the experiment began, and inflation to remain steady at its lower value without further excess unemployment costs. The national income loss and hurtful unemployment arising from the initial disinflation may be far from negligible, but once these short-run costs are "behind us," there are no further costs to worry about. The operation is like a root-canal treatment, not a permanent backache. Or, as Friedman put it starkly, "there is always a temporary trade-off between inflation and unemployment; there is no permanent trade-off" (11).

The Friedman-Lucas view of the world is based on the premise that nominal wages and prices by themselves do not play any meaningful, lasting role in economic decisions, but matter only when compared to other nominal wages and prices. Many have recognized that this premise is too extreme and that money illusion is widespread in the real world (e.g., Fisher 1928; Modigliani 1986; Shafir, Diamond, and Tversky 1997). In particular, over 40 years ago Eckstein and Brinner (1972) and Tobin (1972) considered instances of money illusion that they thought could have significant macroeconomic consequences. Eckstein and Brinner conjectured that 2 percent is such a low rate of inflation that many workers and firms would ignore it when setting wages. As inflation would rise, there would be "increased awareness and concern" with real as opposed to nominal wages, so that observed inflation would become incorporated more fully into nominal wage contracts. This phenomenon would give rise to a negatively sloped, permanent relation between inflation and unemployment at low inflation rates. Then, above some inflation threshold where wage setters would think fully in real terms, the slope of the relation would become vertical, which means that the trade-off would disappear and that the classical world would be back.

The other paper, by James Tobin (1972), considered the possibility that money illusion would prevent nominal wages from ever declining. Tobin argued that the long-run Phillips curve would then be "very flat for high unemployment and [become] vertical at a critically low rate of unemployment" (11). The reason downwardly rigid nominal wages would generate a long-run negative relation between inflation and unemployment is that labour markets are heterogeneous. As inflation declined to low values, the entire distribution of firm-level nominal wage changes would move down with inflation. A rising fraction of wage changes would hit the zero wall and would end up being wage freezes instead of wage cuts. The distribution would be "censored" at zero. As a result, the downward pressure exerted on aggregate wage growth and inflation by any given increase in the rate of unemployment would become weaker and weaker. This would force the central bank to manoeuvre monetary policy so as to bring unemployment to the higher and higher levels needed to achieve and maintain every additional point of inflation reduction.

Under money illusion à la Eckstein-Brinner or à la Tobin, targeting a low rate of inflation such as 2 percent would carry two kinds of unemployment costs. In addition to the short-run cost of initially disinflating to 2 percent, which would also be present in a classical world, there would be the long-run cost of maintaining inflation permanently at 2 percent. To get a flavour of the magnitudes involved in the case of Canada, consider the change of trend inflation from 5 percent toward the end of the 1980s to 2 percent by the mid-1990s. Based on estimates by Mazumder (2012), the output sacrifice that accompanied the increased unemployment during this disinflation period was 2.75 times the 3-point decline in trend inflation, or 8.25 percent of one year's GDP. According to this calculation, the cost of reducing inflation to the Canadian economy was about $61 billion.[1]

This was a large cost, which by 1995 was "behind us." However, with money illusion the long-run cost of the policy could be much larger, and it would still be with us today. To fix ideas, suppose that maintaining inflation permanently at the lower 2 percent level instead of, say, 4 percent had been keeping Canada's unemployment rate permanently higher by one percentage point. Then, the capitalized cost of the associated permanent income loss over time would have been between $555 billion and $740 billion, not counting the human costs of the permanent addition of over 100,000 workers to the ranks of the unemployed.[2] These are not small numbers to compare to the benefits from reducing inflation from 4 percent to 2 percent.

DOWNWARD NOMINAL WAGE RIGIDITY: WHY, HOW EXTENSIVE AND PERSISTENT, AND HOW RELEVANT MACROECONOMICALLY?

In the rest of this chapter, I study the type of money illusion envisaged by James Tobin, that is, downward nominal wage rigidity. I will be mainly concerned with its presence and relevance in the Canadian economy. There are three questions to be addressed: (1) why workers and firms strongly resist money wage cuts, (2) how important and persistent this resistance actually is in advanced economies, and (3) how macroeconomically significant this phenomenon is, particularly in Canada. Answers to the first two questions will come easily, but there is more uncertainty concerning the problem of macroeconomic relevance. I will therefore spend more time on this third question and look for additional evidence in the Canadian context.

The first question to be dealt with is why money wage rollbacks should be relatively rare. Building on previous research (e.g., Kahneman, Knetsch, and Thaler 1986) and adding his own survey evidence, Truman Bewley (1999) has provided a clear answer to this question. Puzzling over the fact that nominal wages had rarely been cut during the 1991 recession in the United States, Bewley interviewed hundreds of managers,

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[1] This estimate is based on an assumption of $740 billion for potential GDP in 1992. Mazumder's estimate of the sacrifice ratio is based on Ball's (1994) methodology.

[2] The $740 billion figure comes from applying a 2 percent Okun coefficient to an estimate of $740 billion for potential GDP in 1992 and capitalizing the result at a real growth-adjusted discount rate of 2 percent. The $555 billion figure is based on an alternative, more conservative, estimate of 1.5 percent for the Okun coefficient.

labour leaders, professional recruiters, and advisors to the unemployed in 1992 and 1993, and asked them why. The reason most often reported to him was the psychological factor of morale. Workers would regard pay cuts as hostile and unfair (unless made to save the firm). As a result, firms would be reluctant to cut wages and to replace existing workers by others, willing to work for less, for fear of losing their good employees and suffering a serious drop in morale and productivity among their remaining employees. They would rather cut jobs than wages.

The behavioural puzzle is why workers would offer much less resistance to a nominal wage increase of 3 percent when price inflation is 5 percent than they would to a nominal cut of 2 percent when price inflation is zero, given that the expected change in the real wage is the same in these two situations. Bewley's explanation (summarized by Howitt 2002) is that taking the positive step of cutting the nominal pay is an act of commission that shocks down the worker's standard of living drastically and immediately in both absolute terms and relative to others. It is more offensive than the act of omission consisting of simply doing nothing for now and allowing future inflation to erode purchasing power gradually. This was understood by earlier labour economists such as Rees (1973), who observed that "workers universally regard a wage cut as an affront because they view their money wage as a measure of their worth and of the esteem in which they are held" (226).

The second question is how extensive and persistent downward nominal wage rigidity actually is in advanced economies. Again, a clear answer is on hand. It comes from the International Wage Flexibility Project, which involved 29 researchers from 14 countries in the early 2000s (Dickens et al. 2007). The participants scrutinized 360 annual wage change distributions from 31 different datasets covering 16 OECD countries over the period 1972–2003.

The project's estimate of labour market heterogeneity relied on the average standard deviation of measured nominal wage changes across all datasets. After correcting for measurement errors, it was found to be 7.7 percentage points. The summary statistic used to infer the extent of downward nominal wage rigidity was the percentage of workers with pure nominal wage freezes among all those with non-positive wage changes. This percentage averaged 28 percent across years and datasets within countries. In the US Panel Study of Income Dynamics, which was one of the datasets, the percentage of nominal wage freezes was 45 percent. The authors' interpretation was that "28 per cent of the wage cuts that would have taken place under flexible wage setting are prevented by downward rigidity" (Dickens et al. 2007, 212-13). Other authors, such as Fehr and Goette (2005) for Switzerland, Holden and Wulfsberg (2007) for 19 OECD countries, and Daly, Hobijn, and Lucking (2012) for the United States, have shown that wage cuts are scarce relative to wage freezes even when inflation has been low for a long period of time. The existence and persistence of downward nominal wage rigidity now seems to be an established stylized fact of labour markets in advanced countries.

Unfortunately, Canada was not among the OECD countries covered by the International Wage Flexibility Project. The reason is that when the project got underway, the only representative Canadian dataset that was suitable for calculating annual wage changes over an extended period – the Survey of Labour and Income Dynamics – was just beginning to be developed. Given this constraint, many Canadian researchers turned to the Department of Human Resources and Skills Development's (HRSDC) database on wage settlements in bargaining units with 500 or more workers (e.g., Crawford and Harrison 1998; Fortin 1996; Simpson, Cameron, and Hum 1998). Downward nominal wage rigidity in this dataset is strong and persistent. Over the 31-year period from 1982 to 2012, 86 percent of first-year non-positive wage changes in large private-sector settlements have been freezes. Furthermore, this percentage has shown no sign of declining over the last three decades.[3]

The obvious problem with data from large unionized firms is that these firms have special characteristics and may not be representative of the Canadian labour market. Employment in these firms accounts for only 7 percent of total private employment in Canada. Two datasets with a wider coverage are the short longitudinal files from the Labour Market Activity Study (LMAS) for 1986–1987 and 1988–1990, which contain representative samples of the entire household population. One can infer from Bowlus's (1998) examination of the data in the 1986–87 file that 29 percent of non-positive wage changes reported by job stayers were freezes. This percentage matches the average percentage of 28 percent found

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[3] An OLS regression based on HRSDC's annual wage settlements data for large private-sector unions for 1982–2012 gives the following result:

$$R_t = \underset{(3.1)}{86.8} - \underset{(4.3)}{3.3}{*}D9202_t - \underset{(4.4)}{3.2}{*}D0312_t,$$

where R_t is the percentage of first-year non-positive wage changes that are freezes in year t; $D9202_t$ and $D0312_t$ are dummy variables for 1992–2002 and 2003–2012, respectively; and numbers in parentheses are standard errors. The p-value for the test that the coefficients of the two dummy variables are both zero is 0.69, which means that the hypothesis that the extent of downward nominal wage rigidity was the same in the three subperiods 1982–1991 (pre-inflation targeting), 1992–2002, and 2003–2012 cannot be rejected. Interestingly, the OLS regression result for large public-sector unions over the same time span is

$$R_t = \underset{(3.5)}{85.0} - \underset{(4.7)}{2.7}{*}D9202_t - \underset{(4.8)}{3.1}{*}D0312_t.$$

Comparing the two regression results leaves little doubt that the degree and persistence of downward nominal wage rigidity has been just about the same in the public sector as in the private sector.

by the International Wage Flexibility Project. It also almost surely is an underestimate of the degree of downward nominal wage rigidity in the Canadian labour market, because it is well known that household panel data such as the LMAS seriously overstate the frequency of wage cuts (Akerlof, Dickens, and Perry 1996; Altonji and Devereux 2000; Fehr and Goette 2005). The weight of currently existing evidence is that downward nominal wage rigidity is at least as extensive and persistent in Canada as in the 16 other advanced countries surveyed by the International Wage Flexibility Project.

While the existence and persistence of downward nominal wage rigidity is no longer in doubt, the literature is still uncertain about its macroeconomic relevance. It is often asserted, on the contrary, that it is not relevant. For example, the Bank of Canada (2011) stated, "While there is some evidence of downward nominal wage rigidities in Canada, their effects do not appear to be economically significant" (13). This third question about downward nominal wage rigidity therefore needs to be carefully examined. In the next two sections, I will present the different macroeconomic implications of the competing classical and Tobin views concerning the long-run trade-off between inflation and unemployment.

ACCORDING TO CLASSICAL THEORY, THE INFLATION-UNEMPLOYMENT TRADE-OFF VANISHES IN THE LONG RUN

To understand how downward nominal wage rigidity can affect the macroeconomic trade-off between inflation and unemployment, one needs first to recall how inflation and unemployment would be connected if nominal wages were fully flexible. A fundamental axiom of classical economic thinking is that nominal wages and prices matter only when compared to other nominal wages and prices. Only *relative* wages and prices matter for nominal wage and price decisions, if not in the short run, where temporary wage and price misperceptions are possible, then certainly in the long run where the only steady rate of inflation is the accurately expected one. This classical axiom means that forward-looking wage setters are concerned not with nominal wages but with *expected real wages*, say $w - p^e$, where w is the nominal wage firms and workers bargain over and p^e is the price level they expect for the goods they sell and consume.

In this context, most theories of wage determination (see Bean 1994 for a review) conclude that, on average at the macro level, the aggregate nominal wage W should be proportional to the expected price level P^e and expected productivity G^e, a decreasing function of the unemployment rate U (an indicator of outside opportunities), and also influenced by a set of other factors X including demographics, taxation, union power, and labour market institutions and policies.

$$W = P^e + G^e - aU + X, \tag{1}$$

where W, P^e and G^e are in logs, and a is a positive parameter.

Given its variable labour cost, the typical firm is assumed to set its price as a markup (Z) over its marginal cost of production, which, as long as costs are minimized, can be expressed as the ratio between the wage and the marginal productivity of labour. This generates a negative connection between the product price and unemployment because higher unemployment hurts capacity utilization and market power, and increases labour productivity along the production function. Factors such as taxation, the relative prices of capital and tradable goods, monopoly power, and various regulations also impact on productivity G and the markup Z.

$$P = W - bU - G + Z, \tag{2}$$

where b is a positive parameter.

Eliminating W from equations (1) and (2) gives a *price Phillips curve*:

$$P = P^e - (a + b)(U - U^*) + \varepsilon, \text{ or } \pi = \pi^e - (a + b)(U - U^*) + \varepsilon, \tag{3}$$

where $\pi = P - P_{-1}$ and $\pi^e = P^e - P_{-1}$ are actual and expected inflation, $U^* = (X^* + Z^*)/(a + b)$ is a benchmark unemployment rate, X^* and Z^* are the steady-state values of X and Z, and ε is the zero-mean short-run random disturbance $(X - X^*) + (Z - Z^*) + (G^e - G)$.

Equation (3) is the formal expression for the short-run trade-off between inflation and unemployment. Given expected inflation π^e and benchmark unemployment U^*, an increase of one point in unemployment will cut actual inflation by a + b points per unit of time. However, this trade-off cannot last forever because price expectations will catch up with actual inflation. In the steady state, $P^e - P = \pi^e - \pi = \varepsilon = 0$. Expectations are realized and the trade-off vanishes. As can be seen from equation (3), the unemployment rate U settles at the benchmark value U^*, which therefore turns out to be its long-run equilibrium value.

$$U = U^*. \tag{4}$$

Carrying equation (2) lagged one period into equation (1) leads to another form of trade-off, this time between aggregate wage growth and unemployment – a *wage Phillips curve*:

$$\Delta W = \pi^e + \Delta G - (a + b)(U - U^*) + b\Delta U - \Delta Z + \varepsilon, \tag{5}$$

where ΔW is aggregate nominal wage growth.[4]

In the steady state, $\pi^e = \pi$, $\Delta U = \Delta Z = \varepsilon = 0$ and, from equation (2), $\Delta W = \pi + \Delta G$. Hence, equation (5) has the same implication that $U = U^*$ for the long run. Graphically, the long-run Phillips curve described by equation (4) is a vertical line in an unemployment-inflation plane. In this classical environment, there is no way that a permanently higher rate of inflation can buy a permanently lower rate of unemployment. We are always eventually back to the same equilibrium unemployment rate $U = U^*$.

TOBIN'S THEORY REINSTATES THE INFLATION-UNEMPLOYMENT TRADE-OFF IN THE LONG RUN

What did Tobin (1972) do? He added to the classical model the constraint that nominal wages can never be rolled back. He envisaged a situation whereby the individual firm either leaves its wage unchanged from last period's level, or sets it where the unconstrained classical response of equation (1) says it should be, whichever is algebraically larger. In other words, he explored the consequences of assuming that

$$\Delta w = \max(0, \Delta w^n), \tag{6}$$

where $\Delta w^n = w^n - w_{-1}$ is the unconstrained classical (or *notional*) log wage change from last period that the firm would set in the absence of money illusion, and $\Delta w = w - w_{-1}$ is the actual log wage change, which is constrained never to be negative. Assume for simplicity that the notional wage changes Δw^n of individual firms are normally distributed[5] with mean $\Delta W^n = E(\Delta w^n)$ and variance σ^2. Then, the resulting actual aggregate wage change ΔW is readily shown to be

$$\Delta W = E[\max(0, \Delta w^n)] = \Delta W^n \Phi(\Delta W^n/\sigma) + \sigma\varphi(\Delta W^n/\sigma) = \sigma\Psi(\Delta W^n/\sigma), \tag{7}$$

[4] Working along the New Keynesian tradition, Galí (2011) has proposed a wage Phillips curve with the same determinants as equation (5). It is based on the staggered wage-setting model of Erceg, Henderson, and Levin (2000), in which wages are set unilaterally by a monopoly union. If wages that are not reoptimized in any given period are automatically indexed to price inflation, and if the unemployment rate follows a second-order autoregressive process, then an equation similar to (5) is obtained.

[5] Dickens et al. (2007) found that the Weibull distribution fitted the upper tail of the wage change distributions in their sample somewhat better than did the normal distribution. However, a Weibull random variable can take only positive values. Using the Weibull distribution to represent the entire notional wage change distribution would oddly have to exclude negative wage changes from consideration.

where Φ and φ are the standard normal cumulative distribution and probability density functions, respectively; Ψ is a function defined as $\Psi(x) \equiv x\Phi(x) + \varphi(x)$ for all real values x; and ΔW^n follows the same process as the classical equation (5):

$$\Delta W^n = \pi^e + \Delta G - (a + b)(U - U^*) + b\Delta U - \Delta Z + \varepsilon. \quad (8)$$

As a function of notional aggregate wage change ΔW^n, actual aggregate wage growth ΔW has three key properties. First, by construction, ΔW always exceeds ΔW^n and never falls into a negative range. Second, ΔW is an increasing and convex function of ΔW^n. Third, as ΔW^n declines from high to low values, ΔW follows downward, but less than in proportion, so that the wedge $S = \Delta W - \Delta W^n$ between them rises. For large enough values of ΔW^n (depending on the size of σ), few individual notional wage changes will be negative. The wedge S will then be small, actual and notional aggregate wage growth will almost coincide, and the world will be nearly classical. Conversely, as ΔW^n declines to low values, a rising fraction of wage changes that would otherwise be negative will be "swept up" to zero as the Tobin constraint will bite increasingly. The wedge S between ΔW and ΔW^n will increase. For example, if σ is equal to 7.7 percentage points, reflecting the overall average of the International Wage Flexibility Project, then ΔW^n = 10 percent implies ΔW = 10.4 percent (S = 0.4 point), while ΔW^n = 3 percent implies ΔW = 4.8 percent (S = 1.8 points).

Carrying equation (8) into equation (7) yields the short-run aggregate wage change equation (or wage Phillips curve) under the assumption that wage decreases are ruled out:

$$\Delta W/\sigma = \Psi\,[(\pi^e + \Delta G - (a + b)(U - U^*) + b\Delta U - \Delta Z + \varepsilon)/\sigma]. \quad (9)$$

The relation between ΔW and U is negatively sloped and convex, and the slope $-(a + b)\Phi(\Delta W^n/\sigma)$ is smaller than a + b in absolute value.[6] This reflects the fact that unemployment pressure a + b is effective only over the fraction $\Phi(\Delta W^n/\sigma)$ of notional wage changes that are not already constrained at zero.[7]

In the steady state, $\pi^e - \pi = \Delta U = \Delta Z = \varepsilon = 0$ and, from equation (2), $\pi + \Delta G = \Delta W$ holds. From equation (9), the trade-off between aggregate wage growth ΔW and unemployment U is then given by the implicit relation:

$$\Delta W = \sigma\Psi\,[(\Delta W - (a + b)(U - U^*))/\sigma]. \quad (10)$$

[6] We have $\Phi'(y) = \varphi(y)$, $\varphi'(y) = -y\varphi(y)$ and $0 < \Phi < 1$, so that $\Psi'(y) = \Phi(y)$. Therefore, $\partial(\Delta W)/\partial u = -(a + b)\Psi'(\Delta W^n/\sigma) = -(a + b)\Phi(\Delta W^n/\sigma) < a + b$, and $\partial^2(\Delta W)/\partial u^2 = [(a + b)^2\varphi(\Delta W^n/\sigma)]/\sigma > 0$.

[7] We have $\mathrm{Prob}(\Delta w > 0) = \mathrm{Prob}[(\Delta w - \Delta W^n)/\sigma > -\Delta W^n/\sigma] = 1 - \Phi(-\Delta W^n/\sigma) = \Phi(\Delta W^n/\sigma)$.

This long-run relation between ΔW and U is also negatively sloped, and its slope $-[(a+b)\Phi(\Delta W^n/\sigma)]/[1-\Phi(\Delta W^n/\sigma)]$ is steeper than the slope $-(a+b)\Phi(\Delta W^n/\sigma)$ of the short-run relation (9). It is a convex function, vertically asymptotic to $U = U^*$, and horizontally asymptotic to zero. Since price inflation π is equal to $\Delta W - \Delta G$ in the steady state, a downward translation of the long-run wage Phillips curve by ΔG units (the trend growth rate of productivity) gives the corresponding long-run price Phillips curve. Importantly, parametric decreases in the standard deviation of notional wage changes across firms (σ) will shift the long-run Phillips curve downward and to the left.[8] For given unemployment, a tighter distribution (less heterogeneity) of firm-level notional wage changes around the mean ΔW^n implies less "sweep up" of wage changes, and therefore lower actual aggregate wage growth and inflation.

This, in essence, was Tobin's theoretical amendment to the classical model. As we approach the low-inflation range, downward nominal wage rigidity at the micro level "bends" the long-run Phillips curve to the right and away from full classical verticality at the macro level. The policy implication is that the steady-state unemployment rate is not independent from the target inflation rate. Less permanent inflation entails more permanent unemployment. According to equation (10), the importance of the required permanent unemployment in excess of the classical level U^* depends on the dispersion of nominal wage changes σ, the short-run slope of the classical Phillips curve $a + b$, and the trend growth rate of productivity ΔG.

MANY RESEARCHERS HAVE SHOWN SKEPTICISM OVER THE TRUE ECONOMIC SIGNIFICANCE OF DOWNWARD NOMINAL WAGE RIGIDITY

Many caveats have been made concerning Tobin's model. A frequent objection has been that money illusion cannot be a persistent phenomenon. A typical statement is that it is likely that "downward rigidities, if present, would decline over time as monetary policy achieves credibility for maintaining a low-inflation regime" (Billi and Kahn 2008, 10). The Bank of Canada (2001) has similarly expressed the view that "the premise that behaviour would never fully take account of a persistent low rate of inflation seems untenable" (1). According to Howitt (1987), explanations based on money illusion are often rejected by economists "partly because illusions contradict the maximizing paradigm of microeconomic theory and partly because invoking money illusion is often too simplistic an explanation of phenomena that do not fit well into the standard equilibrium"

[8] In the steady state, $\Delta W^n = \Delta W - (a + b)U$ follows from equation (8). Hence, for given ΔW, equation (10) gives $\partial U/\partial\sigma = [\varphi(\Delta W^n/\sigma)]/[(a + b)\Phi(\Delta W^n/\sigma)] > 0$ and, for given U, $\partial(\Delta W)/\partial\sigma = [\varphi(\Delta W^n/\sigma)]/[\Phi(-\Delta W^n/\sigma)] > 0$.

(518). Whatever the theoretical case may be, empirical evidence should have the last word and, for the time being, empirical facts suggest that downward nominal wage rigidity has persisted over extended periods of low inflation in many advanced countries, including Canada for the last 20 years.

Another theoretical objection to Tobin's model is that its assumption of no wage decreases is too extreme. Tobin obviously saw it as a theoretical simplification meant to help intuition and bring out the implications. A natural way of smoothing and transforming this assumption into a testable proposition in empirical research is to consider a convex combination of the zero-wage-floor and no-wage-floor models leading to the following aggregate wage growth equation:

$$\Delta W = \tau\sigma\Psi(\Delta W^n/\sigma) + (1-\tau)\Delta W^n, \qquad (11)$$

with ΔW^n still given by equation (8) and with the understanding that $0 \leq \tau \leq 1$. The Tobin and classical models are polar cases of this more general model, with $\tau = 1$ and $\tau = 0$, respectively. The parameter τ in this model has a simple interpretation as the degree of resistance to wage cuts, defined as the degree of "thinning" of the distribution of actual wage changes below zero.[9] It recognizes that, although they may be resisted, wage decreases do occur from time to time. Values of τ strictly smaller than one, but larger than zero, would reflect the fact that resistance to nominal wage cuts exists, but is less than complete.

Another criticism levelled at Tobin's no-wage-cut assumption is its neglect of worker turnover across firms. It applies only to the behaviour of job stayers, while actual measures of aggregate wage changes also reflect what happens to job switchers and to the net flow of entry into and exit from employment. This point was initially made and studied by Farès and Lemieux (2001) with Canadian wage data from the Survey of Consumer Finances, and recently by Daly, Hobijn, and Wiles (2012) with US wage data from the Current Population Survey. It is natural to expect downward nominal wage rigidity to be less binding for new hires, although it should matter to some extent in this case too, given the existence of legal minimum wages, the wide rejection of two-tier compensation systems, and the influence of actual wages on reservation wages (Akerlof, Dickens, and Perry 1996; Stark and Sargent 2003). Lebow, Saks, and Wilson (2003) have reported that evidence of downward nominal wage rigidity is stronger in a job-based panel like the US Employment Cost Index than in panels of individual job

[9] Equation (11) follows from assuming that the probability density function of actual wage changes Δw is the same as that of Δw^n for $\Delta w^n > 0$ and $(1-\tau)$ times that of Δw^n for $\Delta w^n < 0$, with the remainder of the probability mass of Δw being concentrated at zero.

stayers. This finding suggests that job switches by themselves would not allow much increase in overall nominal wage flexibility.

Downward nominal wage rigidity could also be circumvented within firms. In facing resistance to wage cuts, firms would have an incentive to compress wage increases, so that the impact of higher real wages for some workers, as a result of avoiding nominal cuts, could be offset by lower wages for other workers. Firms could also respond by adjusting on various margins such as work hours, non-wage benefits, promotion, seniority, and merit and performance pay (e.g., Akerlof, Dickens, and Perry 1996; Crawford and Harrison 1998; Elsby 2009; Lebow, Saks, and Wilson 2003; Shafir, Diamond, and Tversky 1997). Both worker turnover and within-firm adjustments are likely to weaken the macroeconomic effects of downwardly rigid nominal wages. By how much is again for empirical research to find out.

Authors such as Card and Hyslop (1997) and Crawford and Harrison (1998) have questioned the interpretation of wage freezes as entirely reflecting the experience of workers who would otherwise experience wage cuts. Measured zero wage changes could result from some rounding at zero of small wage increases or decreases. These changes could also arise from actual decisions by employers not to adjust wages upward or downward if current wages are still broadly appropriate, given that there could be "menu costs" of changing wages. Part of the spike of the distribution of wage changes at zero would reflect this type of symmetric behaviour around zero instead of asymmetric, purely downward, nominal wage rigidity. Crawford (2001) has been able to identify menu-cost effects on the spike at zero in base-wage changes out of large union settlements in Canada.

A few Canadian researchers have looked for effects of downward nominal wage rigidity on employment. Using HRSDC's large union-settlements data, Simpson, Cameron, and Hum (1998) estimated that wage freezes had a significant adverse effect on industrial employment. Freezes would maintain real wages higher than they would be otherwise. The authors drew from this the implication that Canada's low-inflation policy was hurting employment. The robustness of their result was disputed by Farès and Hogan (2000) and Faruqui (2000), who found no systematic negative impact of wage freezes on employment by treating the same set of data differently. Unfortunately, this sort of debate cannot determine whether downward nominal wage rigidity raises actual aggregate wage growth ΔW above the notional level ΔW^n. Even if wage freezes did not reduce employment at all at the micro level, the central bank would still need to tighten monetary policy until aggregate unemployment was high enough to offset the downward resistance of average wages and prices, reduce inflation to its target rate, and keep it there. Formally, the employment equation that these authors estimate is obtained through a renormalization of the price equation (2), which transforms it into a labour-demand relation. As Akerlof and Dickens (2007) have pointed out, this leads to estimates of parameter b, while full identification of the aggregate wage change equation (9) requires knowledge of a + b, not of b alone.

SO FAR, TESTS OF DOWNWARD NOMINAL WAGE RIGIDITY BASED ON ESTIMATION OF PHILLIPS CURVES HAVE PRODUCED MIXED RESULTS

Given all the caveats, the existence of downward nominal wage rigidity by itself is no guarantee that it is economically significant. The proposition that Tobin's hypothesis has important macroeconomic consequences was first tested with an economy-wide Phillips curve by Akerlof, Dickens, and Perry (1996). They applied a non-linear iterative estimation method to postwar US macrodata in order to confront two polar Phillips curves: the classical model with no nominal wage rigidity, and Tobin's model with strict downward nominal wage rigidity. The latter did marginally better than the former in predicting the rate of inflation in the period 1954–1995, and a lot better in "backcasting" price behaviour during the Great Depression. Their estimated benchmark Phillips curve implied that pushing inflation from 2 percent to zero would raise the steady-state US unemployment rate by 2.6 percentage points.

Djoudad and Sargent (1997) applied the same estimation method to Canadian macrodata for 1956–1989 and obtained similar results. Their model with downward nominal wage rigidity modestly improved the performance of the classical model with no nominal rigidity over this period, and significantly over 1929–1939 and 1990–1996. These US and Canadian results have often been met with skepticism because the evidence was not seen as particularly compelling for the postwar period, which was dominated by years of moderate to high, as opposed to low, inflation,[10] and because many believe that money illusion cannot persist in the long run if monetary policy achieves credibility for keeping inflation low.[11]

Skepticism was increased by the failure of Card and Hyslop (1997) and Farès and Lemieux (2001) to detect aggregate effects of downward nominal wage rigidity in estimated US and Canadian Phillips curves. After adjusting earnings data for changes in hours worked and the

[10] In the Akerlof, Dickens, and Perry (1996) and Djoudad and Sagent (1997) papers, CPI inflation was 3 percent or less 40 percent of the time between the mid-1950s and the mid-1990s.

[11] Hogan and Pichette (2000) went further to argue that the surprisingly good performance of the Akerlof-Dickens-Perry type of estimated Phillips curve in simulations of the Great Depression is a dynamic artifact that does not really depend on whether downward nominal wage rigidity is an important feature of the macroeconomy.

composition of the workforce, they found evidence of downward nominal wage rigidity in microdata, but no evidence that the slopes of the cross-state and cross-province Phillips curves they estimated were smaller in the post-1991 period of low inflation. One problem with their results is the rudimentary treatment, based on blind linear trends and year dummies, that they gave to changes in trend productivity growth and structural unemployment.[12] Stark and Sargent (2003), worried that "simply 'explaining' higher unemployment by a constant upwards trend would not likely be convincing" (18), modelled changes in structural unemployment explicitly and found, contrary to Farès and Lemieux, that the slope of the Canadian Phillips curve had fallen significantly in the post-1991 period.[13] According to their results, even if worker turnover and within-firm adjustments could attenuate the aggregate effects of downward nominal wage rigidity, they would not suppress them entirely.

Lebow, Saks, and Wilson (2003) applied the Kahn (1997) methodology successfully to the job-level microdata underlying the US Employment Cost Index over 1981–1998. They found strong evidence of downward rigidity for both nominal wages and total compensation, but their estimated wage Phillips curve showed no sign of a significant effect of this micro-level rigidity on aggregate inflation. Their result is subject to two kinds of problems. First, they estimated eight coefficients based on 18 annual observations, a method that guarantees a good fit but implies that statistical tests have very low power. Second, instead of assuming that the actual wage change ΔW was a non-linear function of the notional change ΔW^n and of all its determinants, as implied by the Tobin model (equation 9 above), they constrained ΔW to be a linear function of the determinants of ΔW^n and of a wedge variable $S = \Delta W - \Delta W^n$, which they constructed from microdata and treated exogenously.[14] The overall outcome was that the standard confidence intervals around the slope of

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[12] Using pooled US and Canadian macrodata over 1961–1999, Beaudry and Doyle (2001) estimated a Phillips curve linking price inflation to a measure of the output gap. They found no evidence that the inflation-output trade-off had become more non-linear between 1983 and 1999. Their measure of potential output is constructed with a time-varying filter, and their treatment of structural changes is based on rolling regressions. This mechanical way of treating structural change makes their inferences as vulnerable to criticism as those of Card and Hyslop (1997) and Farès and Lemieux (2001).

[13] Stark and Sargent correctly pointed out that Tobin's wage-floor model implies that *all* determinants of the notional wage change ΔW^n, not only the unemployment rate, should have a smaller impact on wage growth when nominal wages are downwardly rigid.

[14] Contrary to Akerlof, Dickens, and Perry (1996), whose non-linear estimation method used an endogenously generated S-variable.

their estimated Phillips curve and the coefficient of their S-variable are both very large and contain zero.

There have been two noticeable Canadian attempts, by Crawford and Wright (2001) and Stark and Sargent (2003), to estimate Tobin-type wage Phillips curves exactly as implied by equations (7) to (9) above. Crawford and Wright's innovative paper relied on data covering 4,400 wage settlements in large unionized firms that had been collected by HRSDC from 1978 to 1999. The goal was to see if allowing the standard deviation of the notional wage change distribution (σ) to be time-varying and accounting explicitly for "menu-cost" effects could reduce the degree of wage rigidity that was truly relevant at the macro level in the low-inflation context of the 1990s. In their particular dataset, they found that σ was low and, further, that it had declined to 2.2 percentage points in 1999 from 4.7 points in 1978.[15]

Crawford and Wright also estimated that the menu costs of changing nominal wages would lead notional wage increases of around 0.6 percent or less to be replaced by wage freezes. If so, the spike of the wage change distribution at zero would include instances where the actual wage would be zero instead of positive. It would then be incorrect to attribute all wage freezes to cases in which workers receive a wage change of zero rather than a wage cut. Doing so would overstate the upward effect of downward nominal wage rigidity on wage growth.

Based on their low end-of-sample estimate of the standard deviation of notional σ and their finding that menu costs matter, Crawford and Wright concluded that downward nominal wage rigidity was there, but that its economic significance was "relatively small" if inflation was held at 2 percent. Their implied long-run Phillips curve was convex, but the convexity really began to be economically significant only at very low rates of inflation. With inflation set at 2 percent and productivity growth at their sample average of 1 percent, they calculated that the steady-state unemployment rate would exceed the asymptotic minimum level by one-third of a percentage point. Their study was influential in convincing the Bank of Canada that it should not be too concerned with this characteristic of the labour market. More than ten years after the Crawford and Wright study had been published, the Bank was still citing it as evidence that the effects of downward nominal wage rigidity did not appear to be economically significant in Canada (Bank of Canada 2011).

[15] In the estimation results they used to construct their wage Phillips curve, the notional variance σ calculated from first-year base-wage adjustments was found to have declined at the geometric rate of 0.6 percent per month over the sample period, that is, from 22.4 points-squared in 1978 to 4.9 points-squared ($= 22.4*\exp(-.006*12*21)$) in 1999, whence $4.7 = (22.4)^{1/2}$ and $2.2 = (4.9)^{1/2}$.

Two questions can be raised about the Crawford and Wright results. The first is whether the low estimate of the notional standard deviation σ they got with their sample of 4,400 large-union wage settlements can be generalized to the broader Canadian labour market. This would have the implication that the economy-wide Phillips curve would remain vertical down to very low rates of inflation and entail only modest permanent excess unemployment costs at a 2 percent rate of inflation. This question arises because the universe of large unionized firms, on which these authors relied, accounts for only 7 percent of total private employment in Canada and is not necessarily representative of the entire Canadian labour market. More specifically, the study's end-of-sample estimate of σ = 2.2 percentage points for large unionized firms was low compared to economy-wide estimates such as the 7.7 point average from the several datasets examined by the International Wage Flexibility Project, and the 10.8 point average from the US study by Lebow, Saks, and Wilson (2003). The low values of σ estimated by Crawford and Wright (between 2.2 and 4.7 points) could be explained by the well-known strong resistance of large unions to increases in wage differentials across bargaining units. These bargaining units may also have more room to move on non-wage benefits. To this extent, these low estimates would understate the dispersion of nominal wage changes among the other 93 percent of private-sector workers in Canadian firms that are smaller or non-unionized.

A quantitative indication that this point is crucial is given by the observation that, if Crawford and Wright's estimate of σ had been 3 points higher, and thus closer to the international average of 7.7 points, their estimate of the permanent excess unemployment generated by downward nominal wage rigidity at a 2 percent inflation rate would also have been higher by about 3 points, other things being equal.[16] Of course, in other parts of the labour market, other things would not necessarily be equal. For example, nominal wage changes could be more responsive to unemployment in smaller and non-unionized firms than in larger unionized firms. Nonetheless, interpreting Crawford and Wright's results for the large unionized private sector as definitive evidence that downward nominal wage rigidity is macroeconomically irrelevant for the entire Canadian labour market is clearly an exaggerated extrapolation.

The second question that can be raised about the Crawford and Wright study is whether its estimated menu-cost effects matter quantitatively at the macro level. Let us assume that the authors are correct in estimating that notional wage changes of between zero and 0.6 percent in large

[16] For given $\Delta W = \pi + \Delta G$, so that $\Delta W^n = \Delta W - (a + b)(U - U^*)$ in the steady state, equation (10) above yields $\partial U/\partial\sigma = [\varphi(\Delta W^n/\sigma)]/[(a + b)\Phi(\Delta W^n/\sigma)]$. Given the study's estimates, this quantity should be around 1, implying that the equilibrium unemployment rate U would respond by about one for one to changes in σ.

union contracts are replaced by wage freezes. It is then worth asking what impact this phenomenon would have on actual wage growth in the aggregate if the entire Canadian labour market followed this rule. The answer is that its macroeconomic impact would be small: less than 0.025 of a percentage point.[17] It was possible for Crawford and Wright to estimate this small effect with some precision based on the large number of observations (4,400) in their sample. This degree of precision would be impossible to achieve with macrodata and, furthermore, at 1/40 of a percentage point the order of magnitude of menu-cost effects they got is so small that neglecting menu-cost effects is most certainly the best economic and statistical strategy to adopt at the macro level.

The other Canadian attempt at estimating a wage Phillips curve with downward nominal wage rigidity is by Stark and Sargent (2003). These authors relied on cross-province macrodata from Statistics Canada's administrative Survey of Employment, Payroll and Hours over the period 1981–1999. Their wage variable was average weekly earnings (non-wage benefits excluded). Contrary to Farès and Lemieux (2001), they did not adjust earnings for hours worked per week, but paid close attention to the correct modelling of the determinants of structural unemployment such as changes in social programs. They were interested in testing the Tobin model against the classical model. They generalized the Tobin model by assuming that nominal wage changes could have a lower bound (f) that was not necessarily zero as in equation (6). This led them to estimate the following translation of equation (7):

$$(\Delta W - f)/\sigma = \Psi[(\Delta W^n - f)/\sigma], \tag{12}$$

with the notional aggregate wage change ΔW^n still given by equation (8). Special cases of this more general model are the strict Tobin model (f is zero) and the classical model (f is a large negative number). The estimation outcome was that the downward nominal wage rigidity model fitted the

[17] To see this, consider a realistic situation where $\Delta W^n = 2.5$ percent and assume, as estimated in Crawford and Wright, that the standard deviation around this notional mean is $\sigma_n = 2.2$ percentage points, that the average menu-cost threshold is m = 0.6 percent, and that the variance around the latter is $(\sigma_m)^2 = 0.18$ points-squared. Then, the standard deviation of the difference $\Delta w^n - m$ is $\sigma_0 = [(\sigma_n)^2 + (\sigma_m)^2]^{1/2} = 2.241$ points, with the notional wage change Δw^n and the menu-cost threshold m assumed to be independent normal random variables at firm level. With these inputs, aggregate wage growth is obtained as $\Delta W = (\Delta W^n)^*\Phi[(\Delta W^n - m)/\sigma_0] + \sigma_n{}^*\varphi[(\Delta W^n - m)/\sigma_0] = 2.617$ percent. However, if m and σ_m are both constrained to be zero, so that there are no menu-cost effects at all, then $\Delta W = (\Delta W^n)^*\Phi[(\Delta W^n/\sigma_n] + \sigma_n{}^*\varphi[(\Delta W^n/\sigma_n] = 2.640$ percent. Hence, the presence of menu costs reduces ΔW by 0.023 of a percentage point. Larger values of σ_n (i.e., $\sigma_n > 2.2$ points) generate even smaller effects of menu costs on aggregate wage growth.

1981–1999 data much more tightly than its classical competitor. The strict Tobin hypothesis of nullity of parameter f could not be rejected.

The Stark and Sargent paper was partly motivated by the failure of the classical Phillips curve to explain the post-1991 behaviour of Canadian inflation. From 1992 to 1998, the national unemployment rate averaged 10 percent, but the CPI inflation rate stopped declining and remained unchanged around 1.5 percent. Over this seven-year period, the unemployment rate accumulated 14 point-years more than if it had been held at a conservatively estimated non-inflationary level such as 8 percent. Assuming that the slope of the annual Phillips curve lay in the interval from –1.0 to –0.5 point per year, in 1997–1999 Canada should have been suffering from a rate of deflation of between 5 and 12 percent. There was instead an observed rate of inflation of 1.5 percent. "Missing deflation" was the problem to be explained. A similar phenomenon has occurred in 2009–2012 in the United States, with unemployment averaging 9 percent, but inflation (less food and energy) remaining steady at around 1.6 percent (see Daly, Hobijn, and Lucking 2012; Galí 2011).

In the classical world described by equation (3) above, there were many possible ways of solving this puzzle. First, significant inflationary disturbances could have hit the economy from the supply side. But cumulatively from 1992 on, price increases from imports, food, energy, and indirect tax changes have been roughly in line with core inflation. The supply side has not been a special source of additional inflation. Second, structural developments could have increased the value of the equilibrium unemployment rate. But in the 1990s the evidence was that structural unemployment was declining, not rising, in particular due to a series of restrictive changes in the federal unemployment insurance system and provincial social assistance programs. By increasing the amount of missing deflation to be explained, falling structural unemployment was not solving the puzzle, but making it harder to solve. Third, as a result of the Bank of Canada's official inflation-targeting policy begun in 1991, expectations of future inflation could have become anchored at the target level of 2 percent (e.g., Fillion and Léonard 1997). However, given the negative pressure of the large and persistent amount of excess unemployment on inflation, this would have oddly implied that the public kept overpredicting actual inflation throughout by a substantial and systematic margin. Fourth, the short-run Phillips curve could have become flatter in the 1990s, which would have made inflation unresponsive to high excess unemployment. Dupasquier and Ricketts (1998) investigated this flattening of the curve and attributed it to various structural non-linearities. Beaudry and Doyle (2001) thought it was due to a better informed and more competent central bank.

Given the failure of the classical Phillips curve to provide a satisfactory account of Canadian facts from one decade to the next, there is an epistemological choice to be made. One strategy consists of holding on to the classical model and re-estimating it with a full set of time-varying parameters on a continuous basis (e.g., Demers 2003; Khalaf and Kichian 2003; Kichian 2001). In this way, true or false, the classical model can always fit the facts, and it will always be possible to invent ex post reasons for any detected instability in the estimated parameters. In contrast, the more traditionally Popperian strategy asks whether it is possible instead to develop and test alternative theories that can explain the sources of parameter instability. In the present instance, Tobin's downward nominal wage rigidity hypothesis is one such alternative whose macroeconomic relevance, I have argued, may have been dismissed prematurely. It is in need of additional econometric testing with macrodata.

NEW EVIDENCE BASED ON CANADIAN MACRODATA

What has been learned from the literature review of the previous sections? Wage cuts tend to be avoided because workers view them as unfair, and firms are worried about their consequences for morale and productivity. Although the reality of money illusion is rejected by many because it seems to contradict the maximizing paradigm of economic theory, whether downward nominal wage rigidity exists is ultimately an empirical question. There is compelling international evidence that this sort of rigidity is extensive and persistent in advanced countries. Introducing downward nominal wage rigidity for job stayers in an otherwise classical model of wage growth and price inflation, as James Tobin did, "bends" the macroeconomic trade-off between inflation and unemployment – the Phillips curve – to the right and away from classical verticality at low rates of inflation. This can have important consequences for economic welfare, since aiming for a low rate of inflation may entail a significant permanent increase in aggregate unemployment. This kind of macroeconomic effect of downward nominal wage rigidity could be weakened by job switches, entry into and exit from employment, and various within-firm adjustments. But again, it is for empirical research to find out to what extent.

The mere search for the existence of negative effects of downward nominal wage rigidity on employment by itself is not sufficient to determine whether aggregate wage growth ΔW exceeds the notional aggregate wage change ΔW^n by a significant amount. Ultimately, the true macroeconomic significance of the Tobin hypothesis for aggregate wage growth and inflation can only be established or rejected by direct testing of economy-wide Phillips curves with macroeconomic data. This is the empirical task to which I turn in the remainder of this chapter. In testing the Tobin model, I allow for the possibility that the degree of resistance to wage cuts (τ) is not 100 percent, but partial, so that the negative part of the distribution of actual wage changes does not necessarily collapse entirely to zero as required by the strict Tobin hypothesis. In this way, I can let the data determine what its preferred value for τ is in the [0, 1] interval. A value of τ close to zero would be consistent with the classical model and a value close to one with the Tobin model.

I carry equation (8) into equation (11) and estimate a Canadian wage Phillips curve with annual macrodata for 1956–2011. The estimation method is non-linear least squares. The annual rate of inflation was 3 percent or less in 31 of the 56 years of the period (mainly 1956–1965 and 1992–2011).[18] As the dependent variable on the left-hand side of equation (11), I take the annual change of total compensation per hour, which is the broadest available measure of aggregate wage growth in the Canadian business sector. On the right-hand side of equation (11), the two parameters to be estimated are the degree of resistance to wage cuts (τ) and the standard deviation of the notional wage change distribution (σ). If $\tau = 1$, equation (11) simplifies to the Tobin equation (7). If $\tau = 0$, then $\Delta W = \Delta W^n$, and equation (11) is identical to the classical equation (5). The stability of σ in the last two decades is also of interest, given that the permanent unemployment costs of downward nominal wage rigidity should be an increasing function of σ, and following some evidence that it may have declined after the low-inflation regime was introduced in 1991, as found by Crawford and Wright (2001) with data from large union wage settlements. As I explained earlier, I omit menu costs of changing wages from consideration at this macro level because they would be too small to be identified with any precision and to have any significant macroeconomic impact.

The other component of the Phillips curve is equation (8), which sets the unobserved aggregate notional wage change as a function of expected inflation, productivity growth, unemployment, and supply-side influences. Expected inflation is specified as a linear combination of one-year lags of changes in unit labour costs, producer prices, and consumer prices. Productivity growth is proxied by a lagged five-year moving average of the growth rate of real GDP per hour in the business sector.[19] The unemployment variable is the national unemployment rate. The annual change in

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[18] Note, however, that these two periods were characterized by very different productivity performances. The average annual growth rate of output per hour in the business sector was higher in 1956–1965 (3.6 percent) than in 1992–2011 (1.6 percent). To this extent, non-inflationary aggregate wage growth was higher in the earlier period.

[19] The linear combination standing for π^e is $\alpha(\Delta W_{-1} - \Delta G5_{-1}) + \beta\Delta PP_{-1} + \gamma\Delta PC_{-1}$, where PP is the producer price index, PC is the consumer price index, and $\Delta G5_{-1}$ is the productivity growth proxy. This expression can be rearranged as $\pi^e = \alpha(\Delta W_{-1} - \Delta PC_{-1} - \Delta G5_{-1}) + \beta(\Delta PP_{-1} - \Delta PC_{-1}) + (\alpha + \beta + \gamma)\Delta PC_{-1}$. The first term in parentheses is the lagged change in the productivity-adjusted real wage. The second is the lagged change in the "terms of trade." The third is the lagged change in consumer prices, which allows testing the homogeneity property $\alpha + \beta + \gamma = 1$ directly. Estimation results in Table 1 impose this homogeneity property on the lagged change

unemployment has not been able to make it into equation (8) statistically and is not reported in the results.[20] The main supply-side influence is the series of major amendments to the Canadian Unemployment (later, Employment) Insurance Act that were legislated between 1971 and 1996. These amendments changed the meaning of the unemployment rate as a measure of labour market pressure many times over the sample period (e.g., Fortin, Keil, and Symons 2001). I capture the effects of these UI/EI amendments with an index of unemployment insurance generosity[21] (Fortin 1984; see Sargent 1998 for details of construction). Among other potential supply-side influences, I have experimented with changes in the effective direct tax rate, the ratio of minimum to average wages, union membership, women and youth labour force weights, and wage-price controls. The only survivor has been the 1976–78 dummy variable for wage-price controls. Finally, no measure of changes in the markup of prices over marginal costs has found its way into the estimated equation (8).

Estimation and test results are assembled in Table 1. The three equations reported there differ essentially by the treatment each gives to parameter τ, which measures the degree of resistance to wage cuts. In the first column, τ is freely estimated and its value is tested. The second and third columns impose the constraints that $\tau = 1$ (the strict Tobin model) and $\tau = 0$ (the strict classical model), respectively, so that comparisons can be made between these two polar alternatives.

The summary statistics have reasonable properties. All three equations "explain" at least 80 percent of the variance of the growth rate of compensation per hour. The residual test statistics do not detect any particular problem with serial correlation, heteroscedasticity or non-normality of errors.

The results for all three equations are obtained after imposing the constraints that the coefficients on the lagged changes in consumer prices and productivity equal one, and that the unemployment rate slope has remained unchanged in the inflation-targeting period (1992–2011). The p-values reported in Table 1 indicate that the equations of columns (1) and (2) easily pass all these coefficient tests, but that the classical model estimated in column (3) rejects the unit coefficient for the lagged change in consumer prices and the stability of the unemployment rate slope post-1991. The results for the classical equation would imply that there has always been price subhomogeneity in the data and that the slope of

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in consumer prices as well as a coefficient of unity on the productivity growth proxy. The test results for these constraints are reported in the table.

[20] This is consistent with the low estimated value for parameter b obtained by Farès and Hogan (2000) and Faruqui (2000) from a renormalization of equation (2). The p-values for the test of no impact of ΔU on ΔWn are of the order of 0.80.

[21] The index I use is based on the implicit wage subsidy that UI/EI offers to minimally qualified recipients, lagged one year.

TABLE 1
Estimated equations for the annual log change of total compensation per hour in the Canadian business sector, 1956–2011

	Unconstrained equation (τ freely estimated)	*Constrained equations* *Tobin* (τ = 1)	*Classical* (τ = 0)
	(1)	(2)	(3)
Estimated coefficients			
Degree of resistance to nominal wage cuts (τ)	1.004 (0.273)	1.0	0.0
Standard deviation of Δw^n distribution (σ)	0.073 (0.034)	0.073 (0.018)	…
Constant	0.020 (0.013)	0.020 (0.009)	0.018 (0.007)
Lagged change in real wage	0.463 (0.172)	0.463 (0.170)	0.513 (0.137)
Lagged change in "terms of trade"	0.140 (0.167)	0.141 (0.160)	0.210 (0.121)
Lagged change in consumer prices	1.0	1.0	1.0
Lagged change in productivity	1.0	1.0	1.0
Unemployment rate	−0.847 (0.202)	−0.848 (0.200)	−0.367 (0.106)
Employment insurance generosity index	0.038 (0.014)	0.038 (0.013)	0.012 (0.007)
Wage-price controls (1976–78)	−0.034 (0.013)	−0.034 (0.012)	−0.034 (0.011)
Summary statistics			
Std. error of regression	0.012	0.012	0.014
Adjusted R^2	0.85	0.86	0.81
P-values for residual tests			
Breusch-Godfrey 3-lag serial correlation LM test	0.28	0.28	0.86
Breusch-Pagan test of heteroscedasticity	0.44	0.44	0.47
Jarque-Bera test of normality of errors	0.29	0.29	0.60
P-values for coefficient tests			
H_0: impact of lagged consumer price inflation is equal to 1	0.66	0.68	0.001

... continued

TABLE 1
(Continued)

	Unconstrained equation (τ freely estimated)	*Constrained equations* *Tobin* (τ = 1)	*Classical* (τ = 0)
	(1)	(2)	(3)
H_0: impact of lagged change in productivity is equal to 1	0.89	0.89	0.33
H_0: full resistance to nominal wage cuts (τ = 1)	0.99	…	…
H_0: no resistance to nominal wage cuts (τ = 0)	0.0006	…	…
P-values for stability tests			
H_0: no change in coefficient of lagged consumer price inflation in 1992–2011	0.43	0.42	0.80
H_0: no change in coefficient of unemployment rate in 1992–2011	0.49	0.48	0.06
H_0: estimate of σ is unchanged:			
- in 1992–2001	0.93	0.99	…
- in 2002–2011	0.32	0.30	…
H_0: linear trend for σ is insignificant:			
- from 1978 on	0.50	0.50	…
- from 1991 on	0.42	0.41	…
H_0: Chow forecast test is passed:			
- for 1956–1983 (“backcast”)	…	0.62	0.25
- for 1992–2001	…	0.37	0.12
- for 2002–2011	…	0.81	0.79
Root mean square errors of ex ante forecasts:			
- for 1992–2001	…	0.013	0.021
- for 2002–2011	…	0.010	0.012

Note: Results are from estimation of equation (8) carried into equation (11) with Canadian annual macrodata from 1956 to 2011. The estimation method is non-linear least squares. Numbers in parentheses are standard errors. 1 percent is written as 0.01. Variables are defined in the appendix.

Source: The statistical estimation procedure is explained in text under “New Evidence Based on Canadian Macrodata.”

the wage Phillips curve has been flatter in the last 20 years of the sample period than in previous decades.

In the model of column (1), the freely estimated value of τ is 1.004 with a standard error of 0.273 around it. Three implications follow. First, the best point estimate from these results is that there is just about 100 percent resistance to wage cuts, in full accordance with Tobin's original model and its assumption of no wage cut. Second, the classical hypothesis of total absence of nominal wage rigidity ($\tau = 0$) is strongly rejected (p-value < 0.001). Third, while the real world may lie between these two polar situations, it looks more Tobin-like than classical. According to the results, the probability that resistance to wage cuts is greater than 50 percent ($\tau > 0.5$) exceeds 96 percent.[22]

In this model with τ unconstrained, the point estimate of the standard deviation of notional wage changes σ is 7.3 percentage points. This estimate is near the 7.7 point average found by the International Wage Flexibility Project for wages and salaries, and somewhat smaller than the 10.8 point average estimated by Lebow, Saks, and Wilson (2003) for hourly compensation with job-level microdata from the US Employment Cost Index. Furthermore, contrary to what Crawford and Wright (2001) found with large union contract data, the p-values reported for the various stability tests of σ do not justify rejection of the hypothesis that this parameter has remained unchanged at the macro level in recent decades.

Column (2) imposes the strict Tobin hypothesis that $\tau = 1$. Since this constrained value for τ is close to the freely estimated value $\tau = 1.004$ in column (1), the resulting estimated coefficients and test results are not very different from those in the unconstrained equation, but the estimated standard errors around the estimates are smaller. There are no surprises in the estimated coefficients of the various determinants of the aggregate notional wage change ΔW^n in columns (1) and (2). The proxy for expected inflation attributes weights 0.46, 0.14, and 0.40 to lagged changes in trend unit labour costs, producer prices, and consumer prices, respectively. Unemployment bites negatively on the growth rate of hourly compensation with an estimated coefficient of around –0.85. The highly significant employment insurance generosity index attenuates this bite.[23]

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[22] Assuming that estimated $\tau = 1.004$ is drawn from a Student t-distribution with 48 degrees of freedom and standard error 0.273, the probability of τ being less than 0.5 is 3.5 percent.

[23] This result is interesting in itself. By the end of the 1990s, the employment insurance generosity index I use had declined to 0.42 from its value of 0.94 at the end of the 1980s. The coefficient of 0.038 estimated for this index in columns (1) and (2) of Table 1 suggests that the UI/EI reforms of those years added 2 percentage points cumulatively to permanent anti-inflation pressure in the Canadian labour market (since 0.038*(0.94 – 0.42) = 0.020).

The 1976–1978 wage-price controls seem to have had some success in holding down wage increases.

Column (3) presents estimation results for the classical model with full wage flexibility by imposing the constraint $\tau = 0$ on equation (11). This allows direct comparisons with results for the Tobin model in column (2). The superior performance of the Tobin model, which is already suggested by the unconstrained estimation of column (1), receives additional support from its better summary statistics, its greater coefficient stability, and its better performance under all forecast and "backcast" tests that are reported. The poor forecasting job of the classical model in the 1990s, which has been noticed in past literature, is again confirmed. The news here is that the Tobin model had no trouble tracking aggregate wage growth in that decade as well as in previous ones.

Figure 1 draws the Phillips curve that is estimated by the model with full resistance to wage cuts in column (2). The resulting long-run Phillips curve, which represents the permanent trade-off between aggregate wage growth ΔW and unemployment U, has implications for welfare and policy analysis. As indicated in the figure, I implement it numerically by attributing to the three parameters σ, a + b, and U^* their estimated values from the regression equation of column (2). These values are $\sigma = 0.073$, $a + b = 0.848$, and $U^* = 0.0425$.[24]

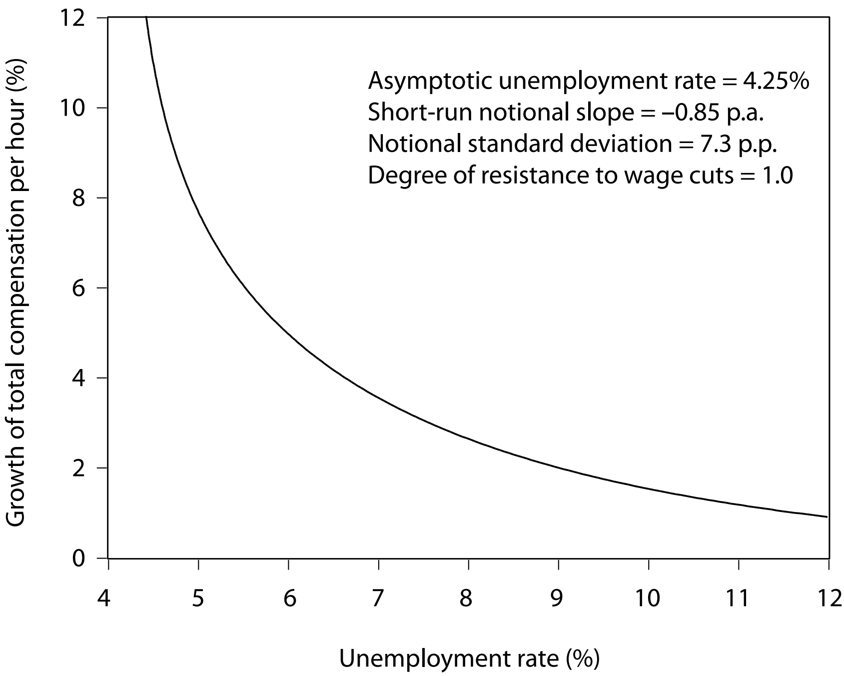
The trade-off shown in Figure 1 is between the log change of total compensation per hour (ΔW) and steady-state unemployment (U) under full resistance to wage cuts ($\tau = 1$). It has asymptotes at $\Delta W = 0$ and $U = U^* = 4.25$ percent. Excess unemployment over the 4.25 percent asymptotic minimum is less than 1 percentage point for ΔW above 6.8 percent, or equivalently for price inflation π above 5.2 percent if productivity is set to grow at the rate of 1.6 percent annually as it did on average over the 20 years 1992–2011. If wage growth and price inflation are reduced below these levels, the permanent unemployment costs rise by increasing margins as the convex (U, ΔW) relation becomes flatter.

How can this representation of the trade-off be judged? At 4.25 percent, the estimated asymptotic minimum unemployment rate U^* might be thought to err on the low side by some, since Canada's unemployment rate averaged 8.1 percent over 1992–2011, including a minimum of 6.0 percent in 2007. In addition, the trade-off might seem to be drawn too much to the northeast of Figure 1 in the low-inflation range. But intuition here can be misleading for three reasons. First, one often tends to forget that,

[24] In the steady state, U^* is the value of the unemployment rate U that satisfies $\Delta W = \Delta W^n = \Delta W - (a + b)(U - U^*)$ at high-enough inflation rates. From column (2) results, one gets $U^* = (0.020 + 0.038{*}0.420)/0.848 = 0.0425$, where 0.020 is the regression constant, 0.038 is the coefficient of the unemployment insurance generosity index, 0.420 was the going value of this index in 2011, and 0.848 is the absolute value of the coefficient of the unemployment rate.

during the period 1965–1969 preceding the 1971 UI reform in Canada, the unemployment rate averaged 3.9 percent (while private hourly compensation increased 7.25 percent annually). The US unemployment rate also averaged 4.1 percent in 1999–2000 and 4.6 percent in 2006–2007 under a different monetary regime than Canada's. So, U* = 4.25 percent would not seem that "unreasonable" a priori. Second, the value 4.25 percent for U* is a point estimate whose standard error calculated from Table 1 regression results is 0.8 percentage point. The possibility is therefore not insignificant that the true asymptotic minimum value U* be somewhere between 5 and 6 percent, in which case the true Phillips curve would be horizontally to the right of that shown in Figure 1 (but we do not know). Third, the degree of resistance to nominal pay cuts (τ), the notional standard deviation (σ), and the slope coefficient (a + b) are also estimated with standard errors in Table 1. Their true values could in fact be different from those indicated by their point estimates. If so, the true Phillips curve could in fact lie to the southwest of the curve shown in Figure 1.

FIGURE 1
Estimated long-run wage Phillips curve showing the trade-off between growth of total compensation per hour and unemployment under downward nominal wage rigidity, Canada, 1956–2011



Source: Column (2) of Table 1; for a full explanation of the statistical estimation procedure, see the section "New Evidence Based on Canadian Macrodata."

What can be inferred from these remarks is that calculations based on the Tobin wage Phillips curve pictured in Figure 1 will not give precise and certain results, but reasonable orders of magnitude. As an example, Table 2 summarizes the information on the relation between excess unemployment and price inflation extracted from Figure 1, but extends the calculations to degrees of resistance to wage cuts τ of 75 percent and 50 percent. While $\tau \approx 100$ percent is the unconstrained point estimate for τ reported in column (1) of Table 1, it is prudent to take the standard error of 0.273 around it seriously and interpret the results instead as saying that the true value of τ "most probably" belongs to the interval [0.5, 1.0]. The three columns of Table 2 present the results for $\tau = 1$, $\tau = 0.75$, and $\tau = 0.5$, while the four lines consider what happens in each of these cases if $\pi = 6$, 4, 2, and ½ percent, the latter rate corresponding roughly to full price stability in Canada.

TABLE 2
Estimates of steady-state excess unemployment over the asymptotic minimum rate for various rates of price inflation and degrees of resistance to wage cuts based on a Canadian Phillips curve estimated with macrodata for 1956–2011
(percentage points of unemployment)

	Degree of resistance to wage cuts		
Rate of inflation	$\tau = 100\%$	$\tau = 75\%$	$\tau = 50\%$
$\pi = 6\%$	0.8	0.6	0.4
$\pi = 4\%$	1.5	1.0	0.6
$\pi = 2\%$	2.7	1.7	1.0
$\pi = ½\%$	4.6	2.6	1.5

Note: The numbers reported are the values of $U - U^*$ that solve equation (11) $\Delta W = \tau\sigma\Psi(\Delta W^n/\sigma) + (1 - \tau)\Delta W^n$ with $\Delta W^n = \Delta W - (a + b)(U - U^*)$ and $\Delta W = \pi + \Delta G$ for the specified values of τ and π in the steady state. The notional standard deviation σ and slope $a + b$ are the estimates reported in column (2) of Table 1, and productivity growth ΔG is equal to its average for 1992–2011. They are $\sigma = 0.073$, $a + b = 0.848$, and $\Delta G = 0.016$. Excess unemployment $U - U^*$ is an increasing function of σ and τ, and a decreasing function of $a + b$ and $\pi + \Delta G$.

Source: Column (2) of Table 1, and Figure 1.

Based on the evidence from the long-run wage Phillips curve of Table 1, the simulations in Table 2 suggest that targeting an inflation rate of 2 percent, as Canada has done since 1991, has left the steady-state unemployment rate between 1.0 and 2.7 points above the minimum of $U^* = 4.25$ percent that would be attainable at higher inflation rates. Another implication of Table 2 calculations is that shifting to a 4 percent inflation target from the current 2 percent would reduce permanent unemployment in Canada by some 0.4 to

1.2 percentage points. While, again, these numbers should not be taken as precise estimates, their orders of magnitude are not inconsequential. They should be considered in any cost-benefit analysis dealing with the choice or revision of an inflation target. In 2012, for example, each percentage point of additional unemployment would have been associated with 190,000 to 250,000 fewer jobs and a capitalized income loss of some $1,400 to $1,860 billion for the Canadian economy.[25] Naturally, if moving to a somewhat higher target rate of inflation is to be considered in the future, both the costs of higher permanent inflation (however difficult they would be to quantify) and the benefits from lower permanent unemployment should be taken into account.

CONCLUSION

According to the classical view of the relation between inflation and unemployment, the choice of an inflation target has no consequence for the level of unemployment except temporarily when the inflation rate is being reduced to target. Over the long period, there is no need for trading-off more unemployment for less inflation. The long-run Phillips curve is a vertical line at the only unemployment rate that can be sustained. In 1972, James Tobin argued that this view of the long-run relation between inflation and unemployment could be too optimistic, given that workers and firms seem to reject wage cuts. He showed as a theorem that "a model where wage change is never negative implies a long-run Phillips curve that is very flat for high unemployment and becomes vertical at a critically low rate of unemployment" (11). In this Tobin world with strict downward nominal wage rigidity, the Phillips curve would not be vertical, but negatively sloped and convex for low-enough inflation rates.

The economic literature so far has generated compelling evidence that resistance to nominal wage decreases remains fierce, extensive, and persistent in modern economies, even after inflation has been maintained at a low level for two decades. But Tobin's theorem notwithstanding, the implication of this fact for the shape of the long-run Phillips curve has not yet been as clearly established at a macroeconomic level. There have

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[25] The connection between the unemployment rate and the number of jobs depends on the reaction of labour force participation to labour market conditions. The estimate of 190,000 fewer jobs for 2012 assumes no reaction at all, while that of 250,000 is based on an elasticity of 0.25 of the labour force relative to employment (e.g., Fortin and Fortin 1999). The income loss associated with a higher unemployment rate is given by the Okun coefficient. The $1,860 billion figure comes from applying a 2 percent Okun coefficient to an estimate of $1,860 billion for potential GDP in 2012 and capitalizing the result at a real growth-adjusted discount rate of 2 percent. The $1,400 billion figure is based on an alternative, more conservative, estimate of 1.5 percent for the Okun coefficient.

been theoretical as well as empirical objections. Many economists remain skeptical that the money illusion behind the resistance to wage cuts could last forever in a low-inflation environment. Others have pointed out that Tobin's theory applies to job stayers, but not to job switchers and to the flow of entry into and exit from employment. Firms could also circumvent the downward rigidity through various means. Another offset would be that some increases would not occur because the current level of wages would still be broadly appropriate and would not justify incurring the cost of changing wages. Finally, the evidence from empirical research on US and Canadian Phillips curves so far has been mixed. A few researchers have come up with negatively sloped, convex, long-run inflation-unemployment trade-offs. Others have not been so successful.

Given this uncertainty in the literature about the macroeconomic relevance of downward nominal wage rigidity, I have added to the direct evidence by estimating an aggregate wage change equation – a wage Phillips curve – with Canadian annual macrodata over the 56-year period 1956–2011. I have tested the Tobin model within a general framework that allows it to compete against the classical model. The main outcome of the tests I have performed is that the model with full resistance to wage cuts dominates the alternatives. The hypothesis that partial, but still strong, resistance to wage cuts is pervasive and has significant macroeconomic consequences cannot be rejected statistically, while the classical model with full wage flexibility is strongly rejected. The superior performance of the Tobin model against the classical model is also confirmed by greater coefficient stability and significantly better *ex ante* forecasts through the post-1991 period of official inflation targeting. This finding suggests that downward nominal wage rigidity does matter macroeconomically and that the long-run Phillips curve is negatively sloped and convex at low rates of inflation.

The main welfare implication of these results is that Canada's 20-year-old choice of a 2 percent inflation target rate could have significant permanent costs in terms of higher unemployment and underutilization of economic potential. According to the evidence presented, sticking to the 2 percent target would keep the national unemployment rate between 1.0 and 2.7 percentage points in excess of the minimum that would be attainable at higher inflation rates. An additional implication of the results is that adjusting the inflation target, say, to 4 percent could reduce permanent unemployment by some 0.4 to 1.2 percentage points. These numbers should be taken more as orders of magnitude than precise estimates. The key point is that they are not inconsequential, keeping in mind that a one-point increase in the permanent unemployment rate translates into a decrease of 190,000 to 250,000 jobs and is associated with a capitalized income loss of some $1,400 to $1,860 billion for the Canadian economy. Needless to say, any consideration of moving to a somewhat higher target rate of inflation in the future should take account of the costs of higher permanent inflation as well as the benefits from lower permanent unemployment.

APPENDIX: DEFINITIONS OF VARIABLES

Total compensation per hour in the Canadian business sector. For 1954–1961, this is total compensation per hour in the business sector from Statistics Canada, *Aggregate Productivity Measures*, Catalogue 15-204. For 1961–2011, this is equal to TCB/HB, where TCB = total compensation in the business sector and HB = hours worked in the business sector; these data are from CANSIM 383-0003 and 383-0009. The variable used in estimated equations is the log change of total compensation per hour in the business sector.

Consumer price index. For 1954–2011, this is from CANSIM 326-0021. The variable used in estimated equations is the log change of the consumer price index, lagged one year.

Producer price index. For 1954–1961, this is the ratio YNFCB/IYRFCB, where YNFCB is nominal GDP at factor cost in the business sector (old CANSIM matrix 7404) and IYRFCB is an index of real GDP at factor cost in the business sector from Statistics Canada, *Aggregate Productivity Measures*, Catalogue 15-204. For 1961–1997, this is the ratio YNFCB/YRFCB, where YNFCB and YRFCB are nominal and real GDP at factor cost in the business sector, both from CANSIM 379-0002. For 1997–2011, this is the ratio YNFCT/YRT, where YNFCT is nominal GDP at factor cost (CANSIM 380-0016) and YRT is real GDP (CANSIM 380-0017) for the total economy. The variable used in estimated equations is the log change of the producer price index, lagged one year.

Productivity. For 1951–1961, this is output per hour in the business sector from Statistics Canada, *Aggregate Productivity Measures*, Catalogue 15-204. For 1961–2011, this is the ratio RVAB/HB, where RVAB = real value added and HB = hours worked, both in the business sector (CANSIM 383-0003 and 383-0011). The proxy variable used for productivity growth in estimated equations is the five-year moving average of the log change in productivity, lagged one year.

Unemployment rate. This is the national unemployment rate. For 1976–2011, it is from CANSIM 282-0002. For 1966–1975, it is the series that has been linked by Statistics Canada to the post-1975 labour force survey (Statistics Canada, *Historical Labour Force Statistics*, Catalogue 71-201). For 1956–1965, I have extended Statistics Canada's linkage back to 1956 through regression analysis of the overlap with the old pre-1975 series from Statistics Canada, *The Labour Force*, Catalogue 71-001.

Employment insurance generosity index. This is the implicit wage subsidy that employment insurance offers to minimally qualified recipients. It is broadly defined as UIG = R*MAX/MIN, where R = the wage replacement rate, MIN = the minimum number of weeks of work required to qualify for benefits, and MAX = the maximum number of weeks of benefits available to the minimally qualified recipient. Additional details of measurement are discussed in Sargent (1998). The variable actually used in estimated equations is log (1 + UIG) lagged one year, where UIG is a weighted average of the individual provincial UIG indexes. This average is calculated for a structure of provincial unemployment rates that is kept constant throughout the sample period.

Wage-price controls (1976–1978). This is a dummy variable which is equal to 0.5 in 1976, 1.0 in 1977 and 1978, and 0 in all other years.

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WHAT HAVE CENTRAL BANKERS LEARNED FROM MODERN MACROECONOMIC THEORY?

Peter Howitt

INTRODUCTION

Technological innovation in today's world draws heavily on fundamental science. But the connection between science and technology was not always like this. Economic historians have long argued that the key technologies of the first Industrial Revolution owed nothing to scientific theory, and that many of the inventions were made by "tinkerers" with no formal scientific education.[1] Indeed, Rosenberg (1982) makes the case that, even well into the twentieth century, the causal link between

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[1] For example, Mantoux (1927). More recent authors, such as Jacob (1997) and Mokyr (2010), make a strong case that the prominence of science and the scientific method in British culture in the eighteenth and nineteenth centuries helped create the human capital needed for the innovations that produced the Industrial Revolution. But this does not imply that any such innovation can be construed as an application of known scientific principles.

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science and technology was often the reverse of what we now take for granted; scientific knowledge was the result, as much as or even more than it was the cause, of technological breakthroughs. For example, the science of aerodynamics was not sufficiently advanced to explain why birds can fly until the Wright brothers found out how to make humans fly; Vane discovered the principles underlying aspirin's anti-thrombotic effect only after practicing physicians had already discovered that the effect exists and had even begun prescribing aspirin for the prevention of heart attacks and strokes. Indeed, entire fields of scientific inquiry arose from discoveries made in the course of solving practical technological problems, such when Pasteur's attempts to deal with putrefaction in his family wine business opened up the field of microbiology, or when the knowledge generated by German dye-makers provided the clues that formed the basis of organic chemistry. In these and many more cases described by Rosenberg, practitioners had a lot more to teach theorists than the other way around; the practitioners discovered what works, and the theorists scrambled to keep up, looking for general covering laws that might explain why it works.

My purpose in this essay is to investigate the relationship between practitioners and theorists of monetary policy. Have central bankers, the practitioners, been applying developments of modern macroeconomic theory, as the developers of modern computer technology have been applying solid state physics and other branches of scientific theory, or has macroeconomic theory been lagging behind practice, as scientific theory did in the first Industrial Revolution? I will argue that, despite the impressive technical progress that macroeconomics has made, and despite the fact that the profession seems to have reached a consensus on methodology that allows it to move beyond the polemics that once characterized the subject, nevertheless macroeconomic theory has fallen behind the practice of central banking. After briefly summarizing the current state of macro theory, I will focus on what strikes me as the two most important developments in monetary policy in the last two decades – inflation targeting and dealing with financial crises. My analysis rejects the claims made by several authors to the effect that the proliferation of inflation-targeting regimes around the globe represents an application of well-established principles of macroeconomic theory. As for how monetary policy can promote financial stability, a subject on which most economists agree modern theory has been of little help, I argue that macroeconomics has lost touch with the fundamental raison d'être of central banks. My diagnosis is that macroeconomic theory has become distracted by its preoccupation with states of equilibrium, a preoccupation that inhibits analysis of a market economy's coordination mechanisms. I conclude with a plea for a more diverse ecology of approaches to macroeconomic theory, one that finds room for agent-based computational economics as well as for more conventional equilibrium theories.

MODERN MACROECONOMIC THEORY

Many commentators[2] have remarked on the striking degree of fundamental agreement that has been forged in macroeconomics over the past four decades. Forty years ago the leading journals were filled with controversy over fundamental issues of theory, policy, and methodology, to an extent that seems rather wild and unprofessional by twenty-first century standards. Consider for example Friedman's (1968) AEA presidential address, in which he introduced the term "natural rate of unemployment." This article is now widely considered to be one of the landmark contributions to twentieth-century macroeconomics, and its main message has been embraced by both fresh and salt water economists. But at the time when Friedman delivered the address it was seen as an aggressive attack on the foundations of mainstream Keynesian economics, and was vigorously rebutted by leading Keynesians such as Tobin (1972). The rational expectations revolution that began a few years after Friedman's address gave rise to further controversies over the right way to do macroeconomics, as did the real business-cycle movement.

Today, in contrast, controversy over methodology has all but vanished from the literature. The articles on macroeconomics published in leading journals almost all use the same common methodology, that of dynamic stochastic general equilibrium (DSGE) theory, according to which the economy should be represented by a model with explicit micro foundations – endowments, technology (of production and of transaction), preferences, and demography – as well as explicit stochastic processes governing shocks to these constituent components, and the economy should be assumed always to be in a state of rational-expectations equilibrium. Even modern Keynesians, the intellectual descendents of those who fought so hard to resist the rational expectations revolution, have adopted this common methodology, largely because the definition of DSGE is broad enough to include transaction technologies that give rise to the wage/price stickiness that has always been the hallmark of Keynesian economics.[3] Although there are still notable economists who dissent from modern DSGE theory,[4] it is rare indeed to find their works published in the leading academic journals.

The consensus in the modern macro literature extends beyond methodology and into substantive issues. In particular, even real business-cycle theorists, who initially resisted any nominal frictions, now commonly recognize the need for such frictions in any model that might be used to guide short-run monetary policy.

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[2]For example, Blanchard (2009), Chari and Kehoe (2006), Kocherlakota (2010), or Woodford (2009).

[3]As opposed to what Leijonhufvud (1968) called the economics of Keynes.

[4]For example, Leijonhufvud (1993), Borio and White (2003), and Laidler (2007).

This "consensus view" – DSGE with nominal frictions, which has come to dominate the leading journals – is what I take as the definition of modern macroeconomic theory.[5] While there are some important strands of the literature that are excluded by this definition because they depart from the DSGE methodology in one way or another, most notably the strand that specifies some form of adaptive learning instead of rational expectations, these other strands are still viewed with suspicion in many quarters, and in any event I do not believe that anyone would claim that the learning literature has exerted a major salutary influence on the conduct of monetary policy.[6]

By sticking to this narrow definition I am thus excluding from "modern macroeconomics" the IS–LM analysis that still constitutes the core of most undergraduate teaching of macroeconomics, at least up to the intermediate level, and which has long been recognized as being in need of a stronger micro foundation. I am also excluding the contributions of Milton Friedman and his immediate followers, who were rarely explicit about micro foundations and did not typically invoke rational expectations. So this chapter could well have been entitled "What have central bankers learned from mainstream macroeconomic theory since the rational expectations revolution?"

THE CANONICAL NEW KEYNESIAN MODEL

From one point of view central bankers have learned a great deal from modern macro, in that almost all of them now use a New Keynesian DSGE model for projection and policy analysis, a model whose core is a variant of the canonical version presented masterfully by Woodford (2003), and whose log linear approximation can be reduced to three forward-looking equations, namely the IS curve:

$$y_t = E_t y_{t+1} - (1/\sigma)(i_t - E_t \pi_{t+1}) + \varepsilon_t^y$$

the Phillips curve:

$$\pi_t = \kappa y_t + \beta E_t \pi_{t+1} + \varepsilon_t^\pi$$

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[5]Other writers have chosen to define modern macroeconomic theory or DSGE more broadly than I have, so as to include even models that depart from rational expectations equilibrium. See, for example, Kocherlakota (2010) or Chari (2010). The latter implicitly defines DSGE as including any logically coherent and completely specified model that explicitly represents behaviour at the individual level.

[6]One possible exception is the "Taylor Principle" to the effect that the central bank's policy interest rate must respond more than point for point to increases in inflation for the economy's rational expectations equilibrium to be expectationally stable. As I argued in Howitt (1992), however, the idea was already contained, at least implicitly, in Friedman's (1968) rendition of Wicksell's cumulative process.

and the Taylor rule:

$$i_t = \phi_y y_t + \phi_\pi \pi_t + \varepsilon_t^i,$$

where the unknowns (y_t, π_t, i_t) are the output gap, inflation, and the nominal interest rate, the expectation operator E_t denotes the rational expectation conditional on time t information, the ε's are random shocks, the coefficients (σ, κ, β, ϕ_y, ϕ_π) are all positive, and $\beta < 1$.

It is one thing, however, to observe that all central bankers possess such models but another to show that the models represent an improvement over the kind of models that were used in the 1970s, or that they are really useful for policy purposes. On this point the critics of DSGE such as Fair (2012) are in agreement with supporters such as Chari, Kehoe, and McGrattan (2009) to the effect that the new models are no more useful than the old ones. Indeed Fair argues that the new models embody technological regress. What follows in this section is my own gloss on the arguments of these authors.

In the 1970s the models that were used by most central banks were built around the core of the familiar textbook IS–LM model, with some sort of Phillips curve added to account for inflation. So, in terms of these two core models, what central bankers have learned from modern macro theory can be summarized in terms of the difference between the canonical New Keynesian DSGE and the Old Keynesian IS–LM–PC framework, namely:

1. The new models have no need for the LM curve.
2. The new models have forward-looking rational expectations where the old ones typically included lagged values of the same variables.
3. The parameters and shocks of the new models are claimed to be structural – invariant to policy interventions.

The first of these differences is of no great significance since it was already well understood before the onset of the rational expectations revolution[7] that the LM curve was redundant when the central bank used the rate of interest as its policy instrument, at least within an analytical framework, like IS–LM, that assumed continual equality between the supply and demand for money.[8] So the question now is whether the second and third of these differences have made a positive contribution to the implementation of monetary policy.

[7] See Poole (1970) for example.

[8] Laidler (2007) reminds us that this was not an assumption that was shared by those working within the monetarist tradition, in which discrepancies between the supply and demand for money played an important causal role in generating real fluctuations in output and inflation, as well as in provoking financial crises.

The second difference is actually less radical than might appear at first glance since, as several authors have noted, empirical implementations of the new models that are actually used in central banks have had to reinsert the lagged variables in order to fit the data. Of course we can now tell stories that would make the coefficients of the lagged variables structural, but that is the third difference. So in terms of the second difference the issue is not that anything has been replaced but that rational expectations have been added as additional variables. While the assumption of rational expectations by itself has the virtues of parsimony and elegance, the process of adding rational expectations to the list of variables that were already considered as proxying for expectations has neither of these virtues. Generally speaking, as Chari, Kehoe, and McGrattan (2009) have pointed out, the New Keynesian branch of DSGE theory that central bank models are based on has generated a proliferation of right-hand-side variables, which raises the question of whether they have been over fitted. In the end the only real test is whether the models can generate more reliable policy projections than could the older models without rational expectations. I am unaware of any demonstration that such is the case, but maybe I am missing something, and in any event the ability to project policy changes is critically dependent on whether or not the model's parameters really are structural – again it is the third difference that is really critical.

As for this third difference, the claim that DSGE models can be used for policy analysis because their coefficients and shocks are invariant to policy changes is not easy to verify objectively. In effect, the claim is that the models are free from a particular type of specification error, the type that is subject to the famous Lucas critique, when various coefficients represent the effects of the associated regressor working through expectational effects that will actually change when the policy regime is altered. But it is important to recognize that this is not the only type of specification error that can render coefficients non-structural, and that can therefore render a model unreliable for purposes of policy analysis. Generally speaking, a model will be unreliable any time that the model departs significantly from the actual processes that are driving the data. In such cases we can always find the coefficients that best fit the historical time series, but once the policy regime changes so will the best-fitting coefficients.

To judge how likely it is that New Keynesian DSGE models are free from specification error is of course a difficult task, and there is no definitive way of approaching the task. In the end it is impossible to avoid subjective judgments. A lot depends on how convincing one finds the stories we tell that underlie the mathematical model. The less confidence we have in those stories, the less likely it will be that the related coefficients and shocks will be structural. By this subjective standard, I believe it is hard to make a good case for the claim of policy-invariance underlying the critical third difference mentioned above. In particular, I'm sure it would be hard to find many intelligent observers who were capable of understanding the models, without having been socialized by professional training, who would really be convinced by the stories told by the models' developers.

Consider for example the story underlying the IS curve, which is actually the intertemporal Euler condition of the representative household, with coefficient r being that household's elasticity of marginal utility. The idea that the entire household sector of, say, the US economy is just a blown-up version of a single person is on the face of it about as bold and unlikely a hypothesis as one could imagine. As Kirman (1992) has argued, if the hypothesis is invalid, then the specification error made by ignoring heterogeneity is potentially much more serious than that made by treating expectations as structural. And the likelihood of the former type of specification error seems to me to be very high in light of the large literature showing that this aggregate Euler equation does a bad job, on multiple dimensions, of fitting the data.[9]

Consider also the Calvo pricing story underlying the Phillips curve, according to which firms stuck with prices that were set many months ago, and that are way out of line with their competitors' prices and with their own marginal costs, are waiting desperately for a call from the Calvo fairy that would allow them to do something about the disastrous situation they find themselves in. Or consider the indexation story underlying the addition of lagged inflation to the Phillips curve, which, as Chari, Kehoe, and McGrattan (2009) have observed, does not correspond to any commonly observed practice among price setters and which in fact is contradicted by empirical microeconomic studies showing that most prices remain absolutely fixed for months at a time.

My conclusion from this cursory examination of New Keynesian DSGE models is that they offer no clear advantages over the old style of model that was in use well before the onset of the rational expectations revolution. Although every central bank seems to have one, this is not to say that the models are of great use to them. Certainly there is no central bank that would put monetary policy on autopilot using a DSGE model. Instead, I believe that in almost all central banks the DSGE model is just one of many inputs into a decision process that remains more art than science.[10]

INFLATION TARGETING

Chari and Kehoe (2006) argue that, despite the empirical weaknesses of DSGE models, modern macroeconomic theory has exerted a major

[9] As just one example, see Lettau and Ludvigsson (2009).
[10] In this regard I agree with the analysis of Mankiw (2006).

influence on central banking by establishing a compelling case for some important principles. They cite the now widespread practice of inflation targeting as a prime example of this influence, as do several other authors.[11] According to the consensus view put forth by these authors, inflation targets are best thought of as rules that constrain the actions of central banks, and these rules have been instituted because practitioners have learned two basic principles from modern macroeconomic theory: (1) that low and steady inflation should be the primary goal of monetary policy, and (2) that policy goals should be pursued with commitment to rules that leaves no room for discretion, except for escape clauses that hardly ever need to be invoked. What I argue in this section is that, contrary to the consensus view, inflation targeting is actually an example of discretion rather than rules, that it was established almost entirely independently of modern macroeconomic theory, and that no compelling theoretical case for either of the above two principles has yet been established.

Inflation targeting as discretion

A rule in the Kydland and Prescott (1977) sense is a prescribed policy function that dictates the setting of a central bank's instruments in any given situation. This is not the way inflation targeting works. Instead of constraining the central banks' setting of instruments, it constrains the setting of its goal, and leaves the bank free to use its discretion in deciding how precisely to achieve that goal. In the words of Bernanke and Mishkin (1997), inflation targeting is a case of "constrained discretion." Indeed, given the fact that inflation has such a lot of momentum, an inflation-targeting central bank has enough discretion to engage in fine-tuning of the business cycle without jeopardizing its inflation target. This is especially true because of what Blanchard and Galí (2007) have called the "divine coincidence" between the policy actions that would control inflation and those that would control real output, at least under what many would regard as normal circumstances.

Even the term "constrained discretion" is somewhat misleading because it suggests that central banks are more bound by inflation targeting than they really are. Historically, central bankers have typically been the sort of people who are averse to inflation, given to following rules based on time-tested principles, cognizant of their responsibility for maintaining the value of the currency they control, and certainly not among the most likely to risk their reputation by pursuing inflationary policies in the hopes of some fleeting improvement in real output. Thus

[11] For example, Goodfriend (2007), Galí and Gertler (2007), and Woodford (2009).

it takes no coercion to persuade the typical central banker to give top priority to fighting inflation.

The inflation bias that needs to be constrained by inflation targets comes instead from the central bankers' political masters, who are constantly putting short-term pressure on them to finance popular expenditures and to keep economic conditions looking good just before election time. It is hardly an accident that in every country I am aware of that has instituted a policy of inflation targeting, the target has been agreed to not just by the central bank but also by the government of the day. By signing onto the target, the government is granting a large degree of de facto independence to its central bank. That is, by publicly agreeing that the central bank should pursue the low inflation goal that most central bankers would prefer in any event to follow, the government has, in an open and well-defined manner, put itself in a position where it will be difficult to pressure the bank into ignoring that goal when, in the future, higher inflation turns out be politically expedient. Countries such as the United States and Germany where the central bank already enjoyed a great deal of de jure independence did not need this extra insulation from political pressure to bring down inflation, which I believe explains why inflation targeting was adopted by other countries such as New Zealand, Canada, the UK, and Sweden whose central banks were generally regarded as being among the least independent.[12]

In sum, inflation targeting seems to me less like an example of policy-makers learning from modern macroeconomic theory to prevent time inconsistent central banks from giving into the temptation to inflate in hopes of gaining some short-term increase in economic activity than it does an example of policy-makers finally deciding that inflation was such a problem that it was worth giving central bankers more discretion to do what they have always wanted to do, by insulating them from political pressure to monetize government deficits. And of course that central banks should have some independence from the political process in order to protect the integrity of the monetary order is an idea that has been around since long before the advent of modern macroeconomic theory, going back at least to Bagehot (1873).

The case for low inflation

Chari and Kehoe (2006) claim that one of the principles that modern macroeconomic theory has established conclusively is that low inflation

[12]See Howitt (2010). This argument must be qualified however by noting that the task of measuring central bank independence is not at all straightforward. As I pointed out in Howitt (1993), a case can be made that the Bank of Canada has actually been quite independent from political pressure since the 1960s.

is the most appropriate goal for monetary policy, a principle that has clearly been a major influence in the establishment of inflation-targeting regimes.[13] Again this strikes me as more a case of theory catching up to practice than the other way round. As I stated earlier, low inflation has always been a high priority for central bankers. And the sad fact (for us theorists) is that modern macroeconomic theory has never managed to come up with a satisfactory account of why a high trend rate of inflation should entail a quantitatively significant cost to society.

The case for low inflation did not come from the original Kydland–Prescott analysis, which merely assumed that low inflation was one of the goals of monetary policy. Instead, the modern case comes from various DSGE studies that have confirmed the optimality of Friedman's rule, which is to reduce inflation to the point where the nominal rate of interest equals zero. That this is not what has motivated the institution of inflation-targeting regimes can be seen in the fact that nowhere does a central bank target a rate that is anywhere near the negative 4 percent per annum that would be required by the Friedman rule in most calibrated models. In any event the saving that would arise in principle from going all the way to negative 4 percent consists of the elimination of a tax on non-interest-bearing money holdings, a saving that almost all published research estimates to be a trivial fraction of GDP because the base of this tax is just a tiny fraction of total wealth in any advanced economy.

New Keynesian DSGE models, in which money as a means of exchange and store of value plays no essential role,[14] offer another possible reason for targeting low inflation, namely, the inefficiency that comes from having a wider dispersion of relative prices for no reason other than the fact that different sellers are at different stages of the price change cycle; those with more recent price changes will tend to have higher relative prices because they have made the most recent adjustment to inflation. In these models the optimal trend rate of inflation is clearly zero, except possibly for second-best public finance reasons (Phelps 1972) or risk-sharing considerations (Levine 1991) that might argue for a positive rate.

Howitt and Milionis (2007) show that in the deterministic New Keynesian DSGE of Yun (2005), the price dispersion cost can be substantial once inflation reaches even 6 or 7 percent, and that at 10 percent inflation the cost is enormous, being equivalent to 30 percent of aggregate

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[13] But certainly not the only influence, and in some cases not at all an influence. New Zealand's inflation-targeting regime was put in place as part of a major overhaul of government administration, whose goal was to make regulators and policy-makers more responsible for their actions. See Goodhart (2010). Canada's was put in place as a way to help avert a wage-price spiral following the introduction of a new nationwide sales tax. See Crow (2002).

[14] Indeed, Woodford (2003) derives the canonical DSGE model in the context of a "cashless economy."

consumption! But they also show that this argument is especially dependent on the Calvo pricing model, which I have argued is particularly unconvincing. In particular, once the trend inflation rate reaches 10 percent, over 35 percent of aggregate output is produced by the 0.3 percent of firms that are selling at a price below marginal cost! These firms would certainly want to either raise their price or curtail production if it were not for the fact that they have not recently been visited by the Calvo fairy, but the model requires them anyway to produce however much is demanded at their obsolete prices. Replacing the Calvo model by a Taylor model with as much as a seven quarter lag between price changes gets rid of this counterintuitive feature of the model and has no firms selling below marginal cost, but it also reduces the cost of a 10 percent inflation to about 1.5 percent of aggregate consumption.

Moreover, if one keeps the assumption of Calvo pricing but reinserts lagged inflation in the Phillips curve, as central bank DSGE models typically do, by invoking the usual indexation story – that price setters not visited by the Calvo fairy adjust their prices as a function of lagged inflation – then the cost of inflation in the DSGE model is almost entirely eliminated, because indexation greatly reduces the extent to which inflation raises price dispersion. For example, Billi (2011) presents a model that includes such indexation and is calibrated to US data, paying strict attention to the zero lower bound on nominal interest rates. He shows that while the optimal mean rate of inflation is less than 1 percent per annum under commitment, it is almost 17 percent under discretion. Yet he also reports that the welfare cost of going from commitment to discretion is less than 0.5 percent of aggregate consumption!

I conclude that the primacy of inflation as a goal for monetary policy is not something that modern macroeconomic theory has been able to teach the practitioners of monetary policy. On the contrary, either the theory is right and the practitioners are being guided by superstition, or else once again we have an example of theory trying, in this case still unsuccessfully, to catch up with practice. Indeed it is clear from the timing of events that the latter must have been the case, since the first inflation–targeting regimes went into place in the early 1900s, a time when the literature that culminated with Woodford's (2003) magnum opus was barely in its infancy.

The case for rules rather than discretion

The other basic principle that Chari and Kehoe argue central bankers have learned from modern macroeconomic theory is that policy should be governed by rules rather than discretion, although perhaps with escape clauses that rarely need to be invoked. That this principle follows from modern DSGE theory is clearly valid; a welfare-maximizing central bank in a DSGE model could always do at least as well under commitment to a fixed rule as it could under discretion, because it would always have the option of choosing a rule that would commit itself to doing what it would have done under discretion, and would only choose to do something else if that would provide more social welfare. Of course the optimal rule might be hard to express, because it makes policy dependent on a variety of different contingencies, but in the typical DSGE model there is no cost of complexity. And in any event the list of contingencies could be kept short by bundling all the unlikely contingencies into the rarely invoked escape clause.

This argument, standard though it has become, strikes me as suffering greatly from the fallacy of considering the economy as a closed system in which everyone understands how things work and all uncertainty arises simply from the stochastic nature of the shock process. That is indeed the nature of DSGE systems, in which the assumption of rational expectations requires that the nature of the economy[15] be common knowledge. But such a system has no room for conjecture and refutation, no room for learning after a rule has been put in place that the theory underlying it is fatally flawed because of some unforeseen and unwanted empirical consequence.

Learning that a rule that once seemed optimal needs to be scrapped calls for something more than an escape clause. For this is not a situation in which some rare event has occurred – a war or a once-in-a-lifetime financial crisis – that calls for a temporary suspension. Instead, we are talking about a situation that calls for a permanent repeal, a complete backing down from what the central bank had been committed to. A central bank that finds itself in such a situation will find its credibility diminished by much more than if it had followed a judicious open-ended discretionary policy that left it free to learn from its mistakes without having to violate any prior commitment.

Lest one think that such a situation is unlikely to occur, consider the policy of "monetary gradualism" that the Bank of Canada followed from 1975 until about 1982. The policy was put in place in an attempt to deal with the double-digit inflation that had been occurring in Canada for several years prior to 1975, as it had been in many OECD countries at the time. The Bank committed itself to a gradual reduction in the growth rate of the money supply, defined explicitly as M1, over the course of the next few years.

Monetary gradualism was precisely what state-of-the-art monetary theory was calling for at the time. Indeed, Friedman (1975) declared that the speech in which Bank governor Gerald Bouey first announced the policy was "the best speech I have ever heard from a central banker." And

[15] I borrow the phrase, and many of the ideas in this section, from Leijonhufvud (2010).

the Bank did indeed honor its commitment. The growth rate of M1 came down as scheduled. But by as early as 1977 it was clear that the policy was not having the intended effect of reducing inflation. As in almost every country that tried such a policy of targeted reductions in monetary growth (Goodhart 1984), the demand function for the targeted definition of money started to shift negatively and unpredictably once the policy was put in place. By the time the policy had been in place for six years, the shifts in demand for M1 had nullified almost all the anti-inflationary effect of the reduction in monetary growth, and the annual rate of CPI inflation in 1981 (12.5 percent) was even higher than it had been when the policy was initiated in 1975.

There is still some question as to the precise cause of these shifts in demand for M1, some saying that it was an example of the Lucas critique and others claiming that it was the coincidental effect of technological change in banking that was allowing deposit holders to economize increasingly on their holdings of non-interest-bearing deposits. But in either case the Bank of Canada was put in a very difficult position by the fact that it had made a public commitment to the policy, which was now clearly not working the way it should be. It was forced to choose between dropping the policy altogether, with the attendant loss of credibility that this would entail, and persisting with a policy that was doing nothing to deal with the inflation that many Canadians considered at the time to be the most pressing problem facing the nation. In fact, the Bank drifted into an unannounced policy of exchange rate targeting until the adoption in 1991 of the inflation–targeting regime still in place today. Inflation did start to come down in 1982, when defending the exchange rate required the growth rate of the money supply to be reduced far below its previously announced targets and Canada experienced the worst recession of all OECD countries at the time. A case can be made that had the Bank of Canada not committed itself to a definite rule in 1975, but instead had followed a more discretionary policy that allowed itself room to learn from its mistakes, it could have brought inflation down sooner and at lower cost.[16]

Stabilization bias

In New Keynesian DSGE models, the central bank needs to be committed to a rule not just to avoid the inflation bias that Kydland and Prescott (1977) argued would exist under discretion but also to avoid what Svensson and Woodford (2005) call the "stabilization bias" of discretion. That is, following a positive price shock that disturbed the Phillips curve, an optimal monetary policy under commitment would require the central bank to

[16]See Howitt (1993) for more details of this episode.

accommodate inflation somewhat during the period of the shock but then to bring inflation below its long-run target in future periods, even if the price shock were purely transitory. This future tightening of monetary policy would increase future expected losses, but the expectation now of lower inflation in the future would allow a more favourable inflation-unemployment trade-off during the period of the shock, and the overall effect of that expected tightening would be to reduce the discounted sum of expected losses. The problem, however, is that if the central bank is not committed to this future tightening it will not undertake it, since the benefits in the form of improved inflation expectations will be bygone. More generally, Svensson and Woodford argue that the optimal inflation target should be history dependent in a way that would never be implemented by a central bank minimizing the "true" social loss function under discretion. Hence the central bank needs to be committed to a rule that implements the optimal inflation target.

I question whether this is something that central bankers have learned to do. Specifically, I do not believe they deliberately aim at tighter monetary policy long after a positive price shock has finished having a direct effect on the economy. Admittedly, inflation-targeting central banks aim to bring inflation back within the target bands within a certain period of time, after it has been shocked above the upper band. But I am not aware of any instance in which an inflation targeter has publicly announced that it is planning to compensate for a positive inflation error by deliberately going through a period of negative errors. And of course for them to demonstrate that they have learned the lesson, they would have to not just plan such a period of negative errors but to commit themselves to such a period. That does not sound like any central bank with which I am familiar.

Now you might say that central bankers have at least learned from modern theory that they need to focus on managing expectations as much as they need to manage their policy rate. And clearly one of the salient characteristics of inflation targeting is the way in which the openness of the regime allows the central bank to influence interest rate and inflation expectations. But did they really need modern macroeconomic theory to understand the importance of their effects on expectations? Discussions of monetary policy going back at least through the early twentieth century are full of analysis of what was once called the "announcement effect" of policy,[17] which was considered by many to be as important as the direct

[17] The term "announcement effect" in connection with economic policy seems to have been invented by Pigou (1928), but as Hicks (1969) explained, Hawtrey (1919) extensively analyzed what amounts to the same thing a decade earlier under the heading of "psychological effects." Smith's (1958, 177) reference to announcement effects makes it clear that the concept was familiar to professional economists by the late 1950s.

effect itself of policy, since it is only by affecting interest-rate expectations that monetary policy can successfully affect the long-term interest rates that matter for controlling aggregate demand. So although the management of expectations in the face of shocks is certainly an important part of monetary policy, this seems to me to be more likely a good reason for having expectations (rational or otherwise) play a prominent role in modern DSGE models, rather than being a result of the new theory.

FINANCIAL STABILITY

Central banking has its origins in the need for financial stability. The Bank of England came to prominence during the series of panics in the late eighteenth and early nineteenth centuries that required someone to act as lender of last resort in order to prevent self-fulfilling expectations of widespread illiquidity. The Federal Reserve System was created to provide an "elastic currency" that would alleviate the seasonal pressures that had drained the financial system in the fall of each year and had led to bank runs and waves of bank failures (see Johnson 2010).

To preserve financial stability, a central bank needs to ensure that the supply of base money varies enough so as to avert panics and collapses when the demand for money is temporarily elevated. It also requires the central bank to stand ready on a regular basis to buy or sell short-term financial instruments at prices that do not fluctuate wildly from day to day. In effect, a central bank oversees a country's money market in much the same way, and for much the same reason, that more conventional commercial enterprises manage the markets for the products they buy and sell. That is, in order to make the market function efficiently, it must provide assurance to other transactors that they can trade when they want, on reasonably predictable terms.

The other main task of a central bank is to ensure the long-run value of the monetary unit. To use a well-worn metaphor, a central bank is the only agent in an economy in a position to provide a "nominal anchor" for the unit in terms of which contracts are written, accounts are kept, and prices are quoted. It does this by controlling the supply of base money.[18] We have known since Edgeworth, Wicksell, and Keynes that unless the supply of base money is controlled, the overall supply of money and credit cannot be controlled, and we have known for even longer that unless the supply of money is controlled, the price level cannot be controlled.

Frequently, these two central tasks of a central bank conflict with one another. To maintain financial stability the bank must often dampen interest-rate fluctuations by expanding or contracting the monetary base to meet the market's day-to-day demands. But to avoid long-run inflation,

[18] This is not to say that the central bank must use the base as its instrument.

it must not supply whatever is demanded without limit. Thus there is a constant tension between the two tasks. The art of central banking consists largely in finding the right way to manage that tension.[19]

One of the shortcomings of modern macroeconomic theory as a guide for monetary policy is that it has lost sight of the origins of central banking and presents a distorted picture of what central banking has always been about. Instead of focusing on the basic conflict between financial stability and price stability, modern macroeconomic theory has, at least until the most recent financial crisis, been almost solely focused on the conflict between inflation and unemployment. The typical analysis of Federal Reserve Policy has focused on how it manages its so-called dual mandate, which makes no reference whatsoever to the Fed's original mandate to provide an elastic currency. New Keynesian DSGE theory provides a logically coherent foundation for this dual mandate by showing that utilitarian social welfare can be approximated (inversely) by a loss function that depends upon inflation and the output gap.

Of course the trade-off between inflation and unemployment is important, and no analysis of monetary policy would be complete without considering it. But the same can be said of the conflict between inflation and financial stability. Yet modern macroeconomic theory has largely ignored the latter conflict. Indeed, the canonical New Keynesian DSGE model presented by Woodford (2003) has complete Arrow–Debreu contingency markets with costless enforcement of intertemporal budget constraints and hence no need to worry about bankruptcies or strategic default risks. True, the financial accelerator of Williamson (1987), Bernanke and Gertler (1989), and Kiyotaki and Moore (1997) has been integrated into some DSGE models,[20] but mainly to indicate how various shocks can be amplified by financial considerations, not to indicate how the central bank might trade off the risks of inflation against the risks of financial instability.

Perhaps the closest the profession came to analyzing this trade-off before the 2007–2008 crisis was during the late 1990s and on into the 2000s, when one of the hot topics of research was whether or not central

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[19] In the nineteenth century, the gold standard made the tension somewhat easier to manage by providing a nominal anchor. But the gold standard did not eliminate the tension, because its maintenance required the central bank to exert control over its liabilities – control that frequently jeopardized the goal of financial stability.

[20] There is also a large literature on "sudden stops," starting with Calvo (1998) and most recently elaborated in terms of a real-business-cycle DSGE by Mendoza (2010), that examines financial crises in developing countries. A sudden stop is an event in which international lending comes to a halt, and typically a severe recession results. In equilibrium models of sudden stops, however, the economy reverts back to its usual dynamic behavior soon after the event,soin this sense the event does not threaten the ultimate stability of the economic system.

banks should pay attention to asset prices, and if so in what way. But none of that analysis contemplated the bursting of a housing bubble that would bring down some of the largest financial institutions in the world, destroy credit markets, and leave major economies with a huge overhang of household debt and negative housing equity, and none of it predicted that such events would generate the deep and prolonged downturn that followed.

Now that we have experienced the aforementioned events, macroeconomics is changing, and probably for the better. We now have DSGE models that incorporate the problems that can happen when the zero lower bound on nominal interest rates is hit, and derive the appropriate conduct of monetary policy in such situations, in terms of managing not only short-term interest rates on government securities but also interventions in private credit markets. And the financial accelerator has been reintroduced into DSGE models (see Gertler and Kiyotaki [2010] for a survey) with amazing alacrity. However, as Mishkin (2011) argues, the models that were actually used by central bankers before the onset of the financial crisis placed little importance on financial frictions or financial stability, and offered no theoretical argument against the Greenspan doctrine of leaving financial markets alone and cleaning up afterwards if need be – a doctrine that has no defenders left now that we have seen the consequences.

The classical stability hypothesis

Why has modern macroeconomic theory lost sight of financial stability as a central goal of monetary policy? One possible answer is that the profession has not taken financial frictions seriously enough. This answer is implicit in the wave of research now being undertaken to imbed financial frictions more deeply into DSGE models of monetary policy, research that will undoubtedly result in an improved class of models. But in my view this answer does not go deep enough. The answer I would give instead is that by focusing exclusively on conditions of rational expectations equilibrium, modern macroeconomic theory has failed to develop any useful analysis of an economic system's coordination mechanism.

The most important task of monetary policy is surely to help avert the worst outcomes of macroeconomic instability – prolonged depression, financial panics, and high inflation. And it is here that central banks are most in need of help from modern macroeconomic theory. Central bankers need to understand what are the limits to stability of a modern market economy, under what circumstances is the economy likely to spin out of control without active intervention on the part of the central bank, and what kinds of policies are most useful for restoring macroeconomic stability when financial markets are in disarray.

But it is also here that modern macroeconomic theory has the least to offer. To understand how and when a system might spin out of control, we would need first to understand the mechanisms that normally keep it under control. Through what processes does a large, complex market economy usually manage to coordinate the activities of millions of independent transactors, none of whom have more than a glimmering of how the overall system works, to such a degree that all but 5 or 6 percent of them find gainful unemployment, even though this typically requires that the services each transactor performs be compatible with the plans of thousands of others, and even though the system is constantly being disrupted by new technologies and new social arrangements? These are the sorts of questions that we need to address to offer useful advice to policy-makers dealing with systemic instability, because we cannot know what has gone wrong with a system if we do not know how it is supposed to work when things are going well.[21]

Modern macroeconomic theory has turned its back on these questions by embracing the hypothesis of rational expectations. It must be emphasized that rational expectations is not a property of individuals; it is a property of the system as a whole. A rational expectations equilibrium is a fixed point in which the outcomes that people are predicting coincide (in a distributional sense) with the outcomes that are being generated by the system when they are making these predictions. Even blind faith in individual rationality does not guarantee that the system as a whole will find this fixed point, and such faith certainly does not help us to understand what happens when the point is not found. We need to understand something about the systemic mechanisms that help to direct the economy toward a coordinated state and that under normal circumstances help to keep it in the neighbourhood of such a state.

Of course the macroeconomic learning literature of Sargent (1999), Evans and Honkapohja (2001), and others goes a long way toward understanding disequilibrium dynamics. But understanding how the system works goes well beyond this. For in order to achieve the kind of coordinated state that general equilibrium analysis presumes, someone has to find the right prices for the myriad of goods and services in the economy, and somehow buyers and sellers have to be matched in all these markets. More generally someone has to create, maintain, and operate markets, hold buffer stocks of goods and money to accommodate other transactors' wishes when supply and demand are not in balance, provide credit to deficit units with good investment prospects, especially those who are maintaining the markets that others depend on for their daily existence, and perform all the other tasks that are needed in order for the machinery of a modern economic system to function.

[21] On this point, see Laidler (2011).

Needless to say, the functioning of markets is not the subject of modern macroeconomics, which instead focuses on the interaction between a small number of aggregate variables under the assumption that all markets clear somehow, that matching buyers and sellers is never a problem,[22] that markets never disappear because of the failure of the firms that were maintaining them, and (until the recent reaction to the financial crisis) that intertemporal budget constraints are enforced costlessly. By focusing on equilibrium allocations, whether under rational or some other form of expectations, DSGE models ignore the possibility that the economy can somehow spin out of control. In particular, they ignore the unstable dynamics of leverage and deleverage that have devastated so many economies in recent years.

In short, as several commentators have recognized, modern macroeconomics involves a new "neoclassical synthesis," based on what Clower and I (1998) once called the "classical stability hypothesis." It is a faith-based system in which a mysterious unspecified and unquestioned mechanism guides the economy without fail to an equilibrium at all points in time no matter what happens. Is there any wonder that such a system is incapable of guiding policy when the actual mechanisms of the economy cease to function properly as credit markets did in 2007 and 2008?

None of the above should be taken as saying that economics was of no help to monetary policy. The lessons of Friedman and Schwartz (1963) concerning the financial collapse of the early 1930s, and Bernanke's (1983) important improvement on their analysis, certainly allowed the Fed to avoid the mistakes of the earlier period. And the Fed was quick to recognize the centrality of various credit markets to the operation of the economy and quick to step in when those markets seized up. My point in this section is just that none of this policy response was guided by modern DSGE theory.

AGENT-BASED COMPUTATIONAL ECONOMICS

New Keynesian DSGE models do of course model one aspect of the coordination mechanism, which is the setting of wages and prices. This is the second part of the "DSGE with nominal frictions" consensus view. However, aside from the fact that the exigencies of tractability in a DSGE framework have forced modellers to assume contrived mechanisms for setting prices, like the Calvo fairy, and to modify those mechanisms with counterfactual indexation assumptions, there is much more to coordination than just the setting of prices and wages. And it is not even clear that stickiness in wages and prices, the defining element of modern

[22] Except in the literature that introduces search/matching frictions into DSGE models, a literature which has made enormous strides in the last few years.

Keynesian economics, plays much of a causal role in creating instability. Indeed, as many writers starting with Keynes himself have pointed out, a greater degree of wage/price flexibility could easily make the economy less stable by inducing debt-deflation and adverse expectational effects.

Given the importance of the coordination mechanism in determining the stability properties of an economy, and given that the DSGE approach almost ignores the mechanism by assumption, the consensus that has settled on DSGE with nominal stickiness seems to me more an obstacle to progress than a sign of progress, especially since there are alternative approaches that can directly address the coordination problem. In particular, I am referring to the approach of agent-based computational economics (ACE), as laid out by the various contributors to Tesfatsion and Judd (2006).

The methodology of ACE is in some sense the polar opposite to that of DSGE. Instead of assuming that people have an incredibly sophisticated ability to solve a computationally challenging intertemporal planning problem in an incredibly simple environment (the simplicity being needed in order to make the equilibrium computable), the ACE approach is to assume that people have very simple rules of behaviour for coping with an environment that is too complex for anyone fully to understand.[23] In short, it portrays an economic system as a human anthill, in which orderly social behaviour can possibly emerge as a property of the interaction between diverse agents, none of whom have any understanding of how the overall system functions.

There are relatively few examples of ACE macro models in the literature to date.[24] My own investigations suggest however that ACE macro models can shed light on some of the issues that have so far eluded DSGE, light that might someday help central banks in steering away from potential instabilities. This work also suggests that the approach could be useful for understanding the fundamental rationale behind inflation targeting. To describe this work in detail would require a separate paper, so the following brief account will have to suffice for present purposes.

Howitt and Clower (2000) examined a primitive economy exchange populated by people with no understanding of their environment other than what has been learned from random meetings with other people, and with a desire to exchange their endowments for something they might want to consume. Starting in an autarkic situation, with no trade

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[23] For a fuller description of ACE methodology see Tesfatsion (2006).

[24] See Basu, Pryor, and Quint (1998); Howitt and Clower (2000); Dosi, Fagiolo, and Roventini (2006); Howitt (2006); Deissenberg, van der Hoog, and Dawid (2008); Delli Gatti et al. (2008); Ashraf and Howitt (2008); Raberto, Teglio, and Cincotti (2010); and Ashraf, Gershman, and Howitt (2011).

organization, it turns out that as long as people have a minimum of entrepreneurial spirit, a coherent network of trade facilities will emerge that allows almost all the potential gains from trade to be fully exploited; moreover, a universal medium of exchange will also emerge as a byproduct of the evolution of market organization. Thus not only can the ACE approach account for the self-organizing and self-regulating properties of a market economy, it can also avoid one of the most serious problems of New Keynesian DSGE models, namely, the difficulty of accounting for the existence of money without ad hoc assumptions like putting money in peoples' utility functions.

In Howitt (2006), I showed that this same economy exhibits a particular sort of multiplier process, in which the failure of one trading firm ("shop") increases the likelihood of other shop failures and can therefore result in a cascade that causes aggregate output in the economy to fall until a suitable set of replacement shops has emerged. There is nothing that price or wage flexibility can do to speed up the recovery process because what is needed is not different prices but new organizational structures. So although the approach can recognize nominal frictions, it does not lean on them exclusively to produce fluctuations in response to demand shifts.

Ashraf and Howitt (2008) showed that in an extended version of this model, calibrated to the US economy, the trend rate of inflation has a significantly positive effect on the equilibrium rate of unemployment, because inflation interferes with the workings of the market mechanism. Specifically, the higher the rate of inflation the more difficult it is for the firms that operate markets to remain in business, because of the well-known tendency of inflation to induce noise into the price system. This is a result that falls naturally out of an ACE approach and that is hard to replicate in any DSGE model.

Ashraf, Gershman, and Howitt (2011) showed that banking problems can have a devastating effect on such an economy, causing it to spin out of control, because the credit that is provided by banks and other financial intermediaries is crucial to the functioning of markets. Such credit is particularly needed when one shop fails and the economy is threatened with a cascade of shop failures. In such circumstances, the easier it is for a potential entrant to find finance the more likely it is that the cascade will be counteracted or even averted by a replacement shop that allows other transactors to resume business as usual. But when banks and other financial intermediaries find their balance sheets in disarray, they are less willing and able to provide this crucial finance.

The work that was briefly described in the preceding paragraphs is still in preliminary stages. I have every expectation that it can be better done, and that many of the specific results we have found will be reversed by subsequent work. But the work shows at least that there is a way forward – a way to model the economy's coordination mechanisms that sheds light on the kinds of instabilities that central banks need to cope with and that can provide an intellectual foundation for understanding the costs and consequences of inflation.

CONCLUSION

This is not an argument for scrapping DSGE models altogether. On the contrary, when we understand as little as we do about macroeconomic systems, we need all the tools we can get. Moreover, even if modern New Keynesian DSGE theory does not represent a significant improvement over old Keynesian economics, it does embody much of the wisdom that has accrued from the history of central banking. But it does not embody all of that wisdom. What central bankers and other policy-makers need from macroeconomic theory at this point is a broader variety of approaches, so that they can see their problems from more than one angle, especially those problems that are hard to address using the currently popular mainstream approach. Fortunately I sense an increased willingness in the profession to satisfy that need for a diversity of approaches, now that the financial crisis and the great recession have shaken belief in the modern consensus. Whether this increased willingness will result eventually in a more useful array of theoretical frameworks is yet to be seen. Meanwhile, modern macroeconomic theory has more to learn from central bankers than it has to teach them.

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WHY ONTARIO DID NOT BECOME A REGION-STATE: REVISITING THE COURCHENE THESIS

Alex Ripley and Stephen Clarkson

The Soviet Union's sudden collapse in 1990 not only brought the Cold-War nuclear stalemate to an end; it provoked considerable intellectual disarray in the disciplines of political economy and international relations. Analysts who had been used to the certainties of conventional binary concepts – East versus West, totalitarianism versus liberalism, socialist versus capitalist – were thrust into a space where previously accepted maxims no longer went unchallenged.

To fill this conceptual vacuum, many academic schools sprang up to offer new understandings for the new reality. For some thinkers, the world's principal reality had become "globalization," variously understood in terms of the collapse of space and time thanks to the impact of new information technologies on transnational interdependence. One school maintained that the nation-state was generally too small to successfully confront the new challenges of economic liberalization and its associated governance problems generated by accelerated flows of people, capital, technology, disease, and crime. Instead, groupings of nation-states into self-organized, solidaristic regions (as seen in the European Community, Mercosur, ASEAN, and possibly NAFTA) had become the midwives of globalization (Hurrell 1995, 332).

This notion of the nation-state's obsolescence was both supported and refuted by a Japanese intellectual's maverick thesis. Yes, argued Kenichi Ohmae (1995), the Westphalian nation-state is in decline. But, no, the real

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

driver of the new era is not the multistate monster region but rather a smaller, more agile player, what he called the "region state" (5). Ohmae maintained that a new type of governance structure was emerging. Rather than expecting salvation from the nation-state's traditional governance mechanisms, these subfederal structures looked to the global economy for solutions to their problems or for the resources to make those solutions work (81). Ohmae defined the region-state as "an area with a common interest and common geography, but which is not necessarily bounded or limited by national borders." It was "the territorial sphere most suited to the interaction of political, social, and economic processes in an era of globalization" (100). Region-states could act as "ports of entry" into national economies for transnational capital, and were the beneficiaries of high growth and prosperity. They provided homes to globally engaged firms and so were the destinations of considerable foreign direct investment (FDI). They had correspondingly and increasingly loud (if often institutionally limited) voices.

In their *From Heartland to North American Region State: The Social, Fiscal and Federal Evolution of Ontario* (1998), Thomas Courchene and Colin Telmer presented a mix of economic and political analysis that supported Ohmae's position. Empirically grounding their thesis in aggregate data, they demonstrate in chapter 3 that from the early 1970s to the mid-1990s, the province of Ontario's economy, along with its policy-makers, adopted an increasingly outward, international orientation. This statistical overview was followed by a detailed discussion of the policies pursued by the governing Progressive Conservative party under William Davis and Frank Miller (ch. 4), the Liberals under David Peterson (ch. 5), the New Democrats under Bob Rae (ch. 6), and the radically conservative "Common Sense" administration of Mike Harris (ch. 7). This political review demonstrated that Ontario was losing its historic role as Canada's economically and politically dominant province. It had once been Canada's "heartland" economically – the leading manufacturing engine of the country's development – and, politically, it had helped keep the country intact since its interests were so closely intertwined with those of the rest of Canada. The province was "dominant in the concerns of those making federal economic policy, unwilling to rock the boat on social policy, cool to devolution, and opposed to free trade," as Andrew Stark put it in his preface to Courchene and Telmer's bold book (iii).

Overwhelming in demographic, economic, and hence political power when compared to the other provinces, Ontario had exerted a strong influence over federal policy-makers for the better part of the hundred years following Canada's adoption in 1878 of a National Policy of import-substitution industrialization. Ontario was the "heartland" in its concern with Canada's well-being. In exchange, the government of Canada was concerned with Ontario as the index by which the whole Canadian federation's political and economic health could be gauged. Ottawa's politicians and bureaucrats considered the Ontario economy to be the federation's prime driver, and so favoured policies that promoted such Ontario interests as the development of an advanced steel industry and an auto-assembly sector. In return for Ottawa's support, Queen's Park championed a strong federal government (Courchene with Telmer 1998, 11).

In the 1970s, two events destabilized Ontario's privileged position and caused its special relationship with Ottawa to unravel. The OPEC energy shock of 1973 started to shift Canada's economic centre of gravity westward, and the 1976 election of René Lévesque's separatist Parti Québécois called national unity into question (Courchene with Telmer 1998, 50). With the stage set for a recalibration of their province's relationship with the rest of the country, Ontarians brought the Progressive Conservatives' 42 years in power to an end in 1985 by electing a Liberal government whose premier, David Peterson, would oversee some fundamental changes in the province's relationships with Canada and the world.

Between 1981 and 1994, nine provinces saw their international import growth outstrip their import growth from other provinces. Ontario's trade experience in this same time period was markedly different. In 1981, Ontario's revenue from international exports was slightly less – 96 percent – than its revenue from sales to the rest of Canada. But over the next 13 years, international imports plus exports grew at a pace far greater than trade with the rest of Canada. By 1994, Ontario exported twice as much to international markets as it did to the rest of the federation, whereas international imports were 3.6 times greater than the province's total purchases from the rest of Canada (Courchene with Telmer 1998, 279). As global markets increased in importance to Ontarian businesses, their dependence on the rest of Canada declined.

This international reorientation formed the backdrop against which Courchene and Telmer argued that Ontario was becoming a "region state" by detaching itself from the domestic economy and deepening its integration in the North American continent (19). Leaning heavily on Kenichi Ohmae's work, they predicted a new shape for Ontario in the twenty-first century. As a North American "motor," it was on track to integrate its economy further with the financial and manufacturing centres of the United States. Their analysis left their readers with a paradox: while Ontario had become a North American region-state economically, its political elites along with its ordinary citizens remained "traditionally the most unhyphenated of Canadians" (281).

This chapter's contribution to honouring Thomas Courchene's multitudinous contributions to the analysis of Canada's political economy assesses the extent to which his and Telmer's claims have stood the test of time. Following their example, we did not study Ontario's formal relations with the United States, largely because Queen's Park has taken few steps in the last decade and a half to assert an autonomous presence in such major

US decision-making centres as Washington, New York City, or Albany. Nor did we seek to trace the Ontario government's informal collaboration with its American counterparts, for instance, in jointly monitoring and remediating pollution levels in the Great Lakes or participating in regular meetings of officials and governors of the neighbouring US states. While these types of low-key collaboration speak to significant levels of the kinds of cross-border policy coordination and integration that typified Ohmae's region-state, they are not actually new. Their deep, century-long roots and organizational ad hocery describe states and provinces on both sides of the Canada-US border which, while primarily inward-looking in their political cultures, have also frequently engaged in considerable cross-border governance as circumstances arose.

Our analysis will accordingly first proceed to review the same kinds of aggregate data that *Heartland* used to build its case: the trends in Ontario's imports from and exports to its three primary partners: the other Canadian provinces, the United States, and the rest of the world. We then look – as they did – for more policy-centred evidence to confirm whether Ontario has indeed outgrown its federal engagement in favour of playing a greater role outside Canada. We examine how Ontario has affirmed its region-stateness by negotiating agreements with counterpart region-states overseas, and its groundbreaking participation in a significant international negotiation that could have been expected to indicate its coming of age as an increasingly autonomous region-state. Finally, we reflect on what changes in its global political-economic context explain why, while Ontario may well have lost its "heartland" role, it has not in fact developed into an Ohmae-type region-state.

1998 TO 2013: IN A CHANGING WORLD, CHANGES FOR ONTARIO

In the decade following the Courchene/Telmer book's publication, Ontario's performance did confirm their presumption of its further integration with foreign markets, but the province did not evolve as they had predicted into an "economic region state" within North America. Surprisingly, the trade data suggest that Ontario trended in the 2000s less toward integration with the United States than with the rest of the world. Rather than consolidating its *continentalization* as most had expected following Canada's implementation of the Canada-United States Free Trade Agreement (CUFTA) in 1989 and the North American Free Trade Agreement (NAFTA) in 1994, Ontario deepened its *internationalization*.

In 2009, the provincial Ministry of International Trade reported that, for the fiscal year 2008, Ontario had generated $164 billion from exports and spent $242 billion on imports. From 1999, the year following *Heartland*'s publication, to the onset of the global financial crisis in 2008, Ontario's dependence on imports from international markets (that is, everything other than the Canadian domestic market) increased, but its export performance stagnated during this time, and even fell – most notably in 2008 (Ontario. Ministry of International Trade 2009).

Ontario exports products to a variety of locations foreign and domestic. In the first quarter of 2011, these exports were collectively valued at $323 billion, $205 billion of which derived from exports to international markets (including the United States). In comparison, interprovincial exports accounted for $118 billion (Ontario. Ministry of Finance 2012). In the same reporting period, Ontario's imports represented an expenditure of $330 billion (ibid.). Imports from international markets (including the United States) accounted for $236 billion of this total, while $94 billion was spent on imports from the rest of Canada (ibid.). Ontario thus continues to trade extensively with the rest of Canada, but depends to a much greater degree on foreign markets for both imports and exports.

When discussing international trade, it is important to differentiate between the many countries with which Ontario engages. The United States remains by far Ontario's single most important foreign trading partner: in 2011, it was the destination for 77 percent of Ontario's exports and the origin of 56 percent of its imports (Statistics Canada 2012a).

However, as both a destination for exports and a source of imports, the United States' share of Ontario's international trade has declined steadily since 2001 (Ontario. Ministry of International Trade 2009). As its dependence on the American market diminished, Ontario increasingly focused on fostering overseas ties, first with European and then with Asia-Pacific markets. In 2002, China was the source of less than 4 percent of Ontario's imports. By 2011, products of Chinese origin accounted for more than 10 percent of the province's imports, making China its second-largest import market, just behind the United States at 11 percent (Statistics Canada 2012b). As the Ministry of Finance (2010) noted in *Ontario's Long-Term Report on the Economy*, while "the United States is expected to remain Ontario's primary trading partner, growth in demand from other international markets, such as the BRIC (Brazil, Russia, India, and China) countries, will help diversify Ontario's international trade" (24).

To determine the extent to which Ontario has become economically disconnected from the rest of Canada, we have to consider the province's trade with the other provinces in relation to its trade with international actors. In 1994, sales to the rest of Canada generated about one-third of Ontario's total exports, while purchases from the rest of Canada constituted a little over a quarter of Ontario's imports' total value (Courchene with Telmer 1998, 279). In 2008, about one-third of Ontario's exports went to the rest of Canada – roughly the same portion as in 1994 (Ontario. Ministry of Finance 2010, 25). Data for 2008 showed that Ontario enjoyed a trade surplus with the rest of the nation, as it had in 1994 and 1981 (ibid.).

Trade data thus demonstrate that Ontario has not become significantly more detached economically from the rest of Canada than it was in the mid-1990s. No data confirm any continuing decline of the Canadian domestic market's importance to Ontario. The province may no longer be the heartland it once was for Canada, but neither has it become much more of a region-state than it was in 1998. A 2010 report published by the University of Toronto's Mowat Centre for Policy Innovation suggested that Ontario's relationship with the rest of Canada has gradually changed in a number of ways. First, an increasing number of Ontarians (rising from 21 percent in 2004 to 33 percent in 2010) were dissatisfied with their province's influence on the national stage (Mendelsohn and Matthews 2010, 5). A similar number reported that they were dissatisfied with federal spending on Ontario: this number increased from being the lowest in Canada in 1998 (37 percent) to being well above the national average in 2010 (63 percent; ibid.). Clearly, Ontarians felt that their province's cherished special relationship with Ottawa was no longer serving them effectively. At the same time, this hardly meant Ontarians had disengaged from the rest of Canada. Provincial (versus national) identity remained weaker in Ontario than anywhere else in Canada and was declining. Just 4 percent of Ontarians identify with their own province rather than Canada (ibid.). Ontario may have a worsening relationship with Ottawa, but that does not demonstrate any trend to region-stateness. Rather, it suggests that Ontario's role in the Canadian federation may be diminished but is still central to its identity.

Indeed, the province's trade relationship that has changed the most is the one with the United States. Although still key to Ontario's prosperity, the American market has nonetheless lost ground to markets overseas, especially those in Asia. This reflects the United States' broader decline in the first years of the twenty-first century. Between 1991 and 2011, the ratio of American to Chinese per capita GDP declined from 67:1 to 9:1 (Itzkowitz Shifrinson and Beckley 2012, 173). For many Americans, economic decline has been manifest not only in relative but also in absolute terms. Particularly hard hit has been the manufacturing sector, which was traditionally of great economic importance to Ontario. The American economy lost 6 million or 32 percent of its manufacturing jobs between 2000 and 2010, when a strong economy driven by innovation gave way to a weakening economy defined by offshoring (Atkinson 2012, 5). This substantial job shedding meant that the American economy as a whole would see zero net job creation in the new millennium's first decade. Critically for Ontario, its partners in the Great Lakes region were particularly hard hit: Michigan lost 47 percent of its manufacturing positions between 2000 and 2008, with 150,000 such jobs lost in Detroit alone (Atkinson 2012, 6).

At the same time as the United States was losing ground and jobs, Ontario's competitive position and appeal to the American market was compromised by a dramatic increase in the value of the Canadian dollar. Ballooning commodity prices and Canada's attractiveness as a destination for foreign investment served to raise the dollar's value from US$0.77 in

January 2009 to parity just one year later (Conference Board of Canada 2010, 2). The federal Conservative government focused heavily on promoting Canada's commodity exports, which benefited the provinces of Alberta, Saskatchewan, and Newfoundland. By contributing to the upward rise of the value of the dollar, this created a further impediment for Ontario's vital manufacturing sector. The Conference Board of Canada (2012) noted that if Ontario's leading firms

> fail to respond to the upward structural realignment of the Canadian dollar, they will slowly lose their international competitiveness and eventually contract what is called "Dutch disease" ... the loss of international competitiveness due to a stronger currency that is pushed upward by higher prices for key commodity exports. (2)

The Conference Board report argued that Ontario was among the provinces hardest hit by the US recession. Although it rebounded impressively at first, "Ontario continues to face pressures for fundamental restructuring in many sectors, especially in manufacturing in general and in the auto industry in particular" (2). The rising dollar had only served to exacerbate these problems (ibid.). Just as heartland Ontario was destabilized by a variety of external factors in the 1970s, so was Ontario's progress to region-stateness shaken in more recent years.

The shift in Ontario's (and Canada's) trade relationship with the United States was due not just to economic factors, but also to policy changes in the wake of the events of September 11, 2001. Throughout the 1990s, Washington had prioritized the liberalization of trade. After 9/11, it shifted its focus to security and the Middle East. This policy change had profound implications for Canada and for businesses in Ontario (Valeriano and Powers 2010, 746).

Washington's post-9/11 preoccupation with anti-terrorist security manifested itself in a number of ways. Most relevant to Ontario's ongoing process of continental disintegration were the heightened border security measures implemented following the attacks on Manhattan and the Pentagon. In their effects, these measures have functioned as non-tariff barriers that have driven up the costs and hazards of doing cross-border business for both Canadian and US-based firms. The imposition of these costs posed a particular threat to the efficient operations of large companies (such as those in the automotive sector) that use just-in-time parts sourcing and rely on speedy delivery as a matter of value added, not just cost reduction (MacPherson et al. 2006, 266).

By heightening border security and introducing new costs for businesses shipping between the United States and Canada, Washington undermined the trade liberalization achieved by CUFTA and NAFTA in the 1990s. The Canadian Chamber of Commerce estimated that post-9/11 security reforms have cost Ontario-based firms $5.2 billion per year since

2001. In the words of MacPherson et al. (2006), "the progressively higher levels of economic integration achieved between 1989 and 2001 may simply come to a halt.… New security measures could prove every bit as daunting to trade and investment flows as the tariffs and quotas that were negotiated away under NAFTA" (267, 274). This unintended rolling back of trade liberalization has undermined Ontario's competitiveness and so blocked its progress toward an integrated region-state.

At the same time as the United States' decline in both economic and geopolitical terms and the related collapse of its manufacturing growth compromised Ontario's process of continental integration, the decreasing competitiveness of Ontario's exports has constrained its ability to generate the kind of wealth needed to make it a significant actor on the global stage in its own right. Meanwhile, although the province's relationship with Ottawa has worsened since the publication of *Heartland*, the people of Ontario maintain a uniquely strong sense of their Canadian identity. In the face of these new realities, Ontario's trade and policy movements have shifted. Rather than becoming a key economic player in North America, Ontario has begun to evolve into a more internationally focused, if passive, entity prepared to pursue import and export opportunities wherever they can be found. This global reorientation of Canada's largest province is reflected in its ongoing pursuit of close relationships with counterpart provinces in Asia and in Europe.

ONTARIO'S BILATERAL COOPERATION WITH OTHER SUBNATIONAL REGIONS

Ontario's overtures to potential foreign partners in Asia, Europe, and elsewhere is not wholly without precedent in Canada. Christopher Kukucha (2009) contends that all ten provinces have for decades "exercised partial and significant autonomy in terms of foreign policy" (23). He notes that most provinces have long-standing foreign-trade promotion programs, and that Ontario maintained an international office in London as early as 1918 (32). Historically, however, only one Canadian province has fit Ohmae's view of a globally engaged federal state: since the 1960s, Quebec has been "the most activist non-central government in the world in terms of its international involvement" (Fry 2009, 143).

Quebec has reached beyond its own borders and sought to engage with foreign national and subfederal entities. It has maintained offices in the United States since 1940, and manages a muscular Ministry of International Relations (ibid., 145). Quebec's ambitious international program is underpinned by the Gérin-Lajoie doctrine, which holds that "any jurisdiction reserved to the provinces within Canada's federal system can also be pursued at the international level by provincial governments" (ibid.). While well behind the sophisticated international relations developed by Quebec, Ontario has nonetheless taken steps toward establishing connections with other region-states.

Beyond examining quantity shifts in Ontario's international integration, we need to understand its changing reality in terms of the efforts made by its policy-makers. The enduring collaborative accords that Queen's Park negotiated with two other federal entities – one in Asia, the other in Europe – illustrate the province's aspiration to integrate with economies overseas.

Ontario and Jiangsu province

With the US economy in decline, Ontario was aware of the need to diversify its connections internationally. As part of its recognition of Asian markets' increased importance, Ontario pursued a productive bilateral relationship with Jiangsu, a wealthy industrial province on China's east coast. A year after the Memorandum of Understanding's renewal by Premier Dalton McGuinty and Governor Liang Baohuo in 2005, the 21-year partnership between Ontario and Jiangsu was bolstered by the creation of the Ontario-Jiangsu Business Council and its Ontario-Jiangsu Joint Economic Committee whose mission was to "encourage economic cooperation and strengthen investment and trade in priority sectors" – in particular, automotive production, electronics, and chemical manufacturing (Ontario. Ministry of Economic Development, Trade, and Employment 2006). At the time of the Business Council's establishment, Sandra Pupatello, then minister of Economic Development and Trade, lauded it as a "solid platform to raise Ontario's profile in Jiangsu and increase investment and trade between our two provinces" (ibid.).

Ontario's relationship with Jiangsu focuses on education. In 2008, the University of Waterloo and Nanjing University created the Sino-Canadian College, through which students could concurrently gain credentials from both institutions. Thanks to the Ontario-Jiangsu partnership, a similar program operates at the Algonquin College of Applied Arts and Technology, which in 2005 entered into advanced placement agreements with the Nanjing University of Technology, Shandong Jiaotong University, and the Jiangsu Maritime Institute (Ontario. Office of the Premier 2005).

Very little published work has documented the dynamic evolution of Ontario's quarter century of cooperation with Jiangsu province. Reflecting the increasing importance of environmental issues in international affairs, Ontario and Jiangsu have fine-tuned their agreement to create new economic opportunities in clean water and clean energy technologies (ibid.). A focus on financial services has also emerged, thus helping both Ontario and Jiangsu to tap into the benefits of the financial innovations that have transformed the international marketplace over the past quarter century.

The agreement has been the occasional subject of political controversy because Jiangsu's position within the authoritarian People's Republic of

China has made some observers question its suitability as an overseas partner. In 2008 the Progressive Conservative MPP Bob Runciman accused Premier Dalton McGuinty of "shielding [Jiangsu vice governor Zhang Weiguo] from being asked questions about their government's actions in Tibet." The same day Premier McGuinty told the legislature that Ontario would not take an "isolationist approach" to engagement with China (Ontario. Legislative Assembly 2008).

By cooperating with Jiangsu province, Ontario would gain a beachhead in the vital Chinese market and continue the process of integrating across geographic, cultural, and political barriers. As with its relationship with Jiangsu, Ontario's other major overseas engagement – with Baden-Württemberg – allows it to nourish a relationship abroad that is distinct from what it gets as a member of the Canadian federation.

Ontario and Baden-Württemberg

Ontario first established a partnership with the German *Land*, Baden-Württemberg, in 1986 in order to offer a more hospitable commercial and political environment for German investors seeking to establish a foothold on the North American continent (Wolfe 2000, 273). As with the Ontario-Jiangsu relationship, the initial Memorandum of Understanding between Queen's Park and Baden-Württemberg has been renewed several times since 1986, with the overarching goal of fostering improved economic, institutional, and even cultural relations between the two jurisdictions (Ontario. Ministry of Economic Development and Trade 2012). A Memorandum of Understanding in 1987 sought to promote cooperation between companies (especially those in the technology sectors). It aimed particularly to stimulate innovation in the automobile sector by generating collaboration in research and development between specific auto companies and local institutions of higher education in each region (ibid.). Subsequent agreements drew not only corporations but also academic institutions and public sector agencies into the partnership in recognition of "the importance of cooperative relations and making commitments in order to develop closer ties between firms and research institutes in [the] respective jurisdictions" (ibid., 269).

Baden-Württemberg and Ontario share economic interests defined by the two regions' substantial cross-ownership of firms and facilities. In 2011, 91 facilities in Germany as a whole were owned by companies based in Ontario or with an ultimate Ontario parentage. These plants employed some 19,000 workers and represented the holdings of 27 corporations, including well-known firms such as the Royal Bank of Canada, Research in Motion, Magna, Torstar Corporation, and Manulife Financial (One Source Information Services 2012a). In Ontario, some 273 facilities are owned by 64 German corporations, the most notable Baden-Württemberg player being Daimler AG (One Source Information Services 2012b).

Each region has a well-established relationship between industry and its university system. In Ontario, Chrysler and a number of smaller firms dedicated to automotive engineering and parts production have established close research partnerships with universities in Windsor and elsewhere (Rutherford and Holmes 2008, 255). Similarly, Daimler-Benz has established collaborative research agreements and has shared or jointly financed laboratories throughout the Baden-Württemberg region (Soboll 2000). In forging collaborative partnerships bilaterally, both governments attempted to internationalize these industry-university agreements.

As does Ontario's relationship with Jiangsu, the Baden-Württemberg connection focuses on education. Since 1990, joint research and student exchange programs have been established between 14 universities in Ontario and nine universities in Baden-Württemberg.[1] The student exchange program has had approximately 2,000 participants since its inception and, in 2013, was supported by 22 universities spread across the two jurisdictions (Ontario-Baden-Württemberg Student Exchange Program 2014).

Later agreements between Ontario and Baden-Württemberg sought to establish links and foster understanding between academic institutions and researchers, between academia and industry, and between business and government in the two regions (Ontario 2012). Since the Liberal Party returned to power in 2003, Queen's Park has demonstrated a renewed interest in the relationship. A new Memorandum of Understanding was signed in 2005 with a focus on student exchanges in post-secondary institutions. The cultural element of the Ontario–Baden-Württemberg relationship has not been limited to student exchanges. In 2006, the Toronto Bach Festival hosted a well-received concert funded by Baden-Württemberg (ibid.).

In addition to generating some basic economic and cultural links between the two regions, the various Ontario–Baden-Württemberg agreements of the past quarter century have helped improve understanding between the relevant governmental agencies on each side of the Atlantic. Over the past decade, cooperation developed between the McGuinty/Kathleen Wynne administration and the *Land* government of Baden-Württemberg. Specific government initiatives in Baden-Württemberg have served as models for Ontario: Energy minister George Smitherman visited Freiburg in 2008 to study its climate-friendly energy usage models prior to drafting what would become Ontario's Green Energy Act (Ontario 2012).

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[1] "A Partnership of Regions," *Deutschland Online,* http://www.magazin-deutschland.de/en/artikel-en/article/article/partnerschaft-der-regionen.html?cHash=27217c1f77a0573d7b8252911aa9a536&type=98.

Firms operating in Ontario are increasingly motivated by fostering international supply chains with their stakeholders and their competitors. While Chrysler is not a Canadian corporation per se, it nonetheless has substantial operations in Ontario where it has maintained a long, generally healthy presence, operating plants throughout the region and building a strong partnership with the University of Windsor. For our analysis, the most promising yet most disappointing case of Ontario's German connection occurred in 1998 when Chrysler merged with Daimler-Benz AG under the Mercedes-Benz's stewardship (Baums 1999, 121 and 125).

As enormous industrial concerns, both companies were substantial players in their respective regional economies. Daimler-Benz was a towering presence in Baden-Württemberg, where it accounted for the bulk of the *Land's* automotive industry's manufacturing, research, and management capacity. Subsequently the number of engineering and parts firms dependent on Daimler-Benz has mushroomed in the Stuttgart region, where it has concentrated its operations, as well as in Baden-Württemberg more generally (Schamp 1995, 98).

Although the transnational merger of Chrysler and Daimler-Benz created new globally registered shares that traded freely across national borders (Karolyi 2003, 412), there was speculation from the outset that the DaimlerChrysler partnership was less a merger than a hostile takeover (Grässlin 1995, 165). Former Daimler-Benz shareholders controlled the majority of the new company, which was registered in Germany where it later came under the sole management of former Daimler-Benz CEO Jürgen Schrempp, who had only been co-chair when the merger took place (ibid.).

While not directly involving provincial policy-makers or even an Ontario-headquartered firm, the DaimlerChrysler partnership is significant not just for the relationship between Ontario and Baden-Württemberg but for our understanding of Ontario's region-stateness. To the extent that a transnational corporation represents the partial integration of the economies in which that corporation operates, the DaimlerChrysler amalgamation signalled a partial extraction of Ontario from North America's economy and its increased integration in Europe's.

Besides the transatlantic unification of the companies' management in each region, the merger also generated meaningful industry-university partnerships in Ontario. To the extent that these partnerships were industry-university collaborations, they created greater provincial innovation capacity. Through DaimlerChrysler, the participation of Mercedes-Benz in these partnerships suggested the deepening of Ontario's globalization. In the late 1990s, DaimlerChrysler's transnational cooperation in the engineering research program at the University of Windsor increased significantly (Rutherford and Holmes 2008, 256), building on several aspects of the various Baden-Württemberg–Ontario agreements that had been signed over the years. Beginning in 1996, the automaker contributed over $600 million to the University of Windsor's planning, construction, and operation of the Automotive Research and Development Centre – a massive research facility owned by the university but managed and funded by Chrysler.[2]

This striking industry-university cooperation between two entities based in two different jurisdictions did not last because Chrysler separated from Daimler in 2007, but the deepened relationship between the private-sector automotive industry and a public-sector university continued through Chrysler's subsequent changes in ownership.[3]

Other aspects of the two corporations' brief marriage also persisted: Chrysler continues to source parts from suppliers closely tied to Daimler-Benz, and shared vehicle architecture designed under DaimlerChrysler has been employed by both corporations since their divorce (Kranz 2007). That a major, globally competitive branch-plant auto assembler could shift from American to German and back to American ownership with such relative ease calls attention both to the vulnerability of Ontario's North American integration to globalization and to the continuing predominance of the US hegemon. But it does not signify the Ontario economy being particularly autonomous. While the mere existence of a partnership does suggest a certain independence of action on the part of Ontario, the agreements themselves do not appear to have increased either Ontario's well-being or its capacity to act internationally as a region-state.

The successive collective agreements between Ontario and Baden-Württemberg have evidently borne some fruit over the past 25 years. However, it would be a gross exaggeration to suggest that sweeping changes in the operations and economic landscapes of either region have resulted from the agreements between these two subfederal jurisdictions. While these intergovernmental collaborations are intriguing, the transatlantic relationship's economic aspect remains curiously undeveloped. In 2011, Germany as a whole accounted for the consumption of just 0.82 percent of Ontario's international exports and was, at 2.3 percent, only the fifth-largest source of Ontario's international imports (Statistics Canada 2012c).

Together, the Baden-Württemberg and Jiangsu partnerships show how Ontario sought to engage internationally with regions that were economically compatible (the similarities being initially smaller with Jiangsu than with Baden-Württemberg). Since the 1990s, the federal government has made continuous moves to promote integration with mainland China, and other provinces have pursued twinning agreements. Ontario's

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[2] "Engineering News: The Automotive Research and Development Centre (ARDC)," University of Windsor, http://web4.uwindsor.ca/units/eng/news.nsf/0/474F9FFD7E425CCA85256CD00049CC0D?openDocument.

[3] Ibid.

international agreements with these counterpart regions do not appear to have generated processes that further detached it from the rest of Canada. This may have been inter-subregionalism in action, but it was very modest in its scope.

ONTARIO AS TRADE NEGOTIATIOR

Along with the nine other provinces, Ontario is playing an increasing role in the negotiation of what used to be the jealously defended preserve of the federal government – Canada's trade agreements. The Ottawa-Brussels negotiation of a Comprehensive Economic and Trade Agreement (CETA) is the first time the provincial governments have been afforded a status which lets them be present by observing – if not directly intervening – in the negotiations (Fafard and Leblond 2012, 3). This higher status for Canada's subfederal jurisdictions resulted from the European Union's insistence, given that the provinces enjoy constitutional jurisdiction over many of the issues such as government procurement, that the European Commission had put on its negotiating agenda.

That Ontario and its counterparts have silent places at the negotiating table is but the most recent step along a long path of their increasing involvement in international deliberations that directly impinge on their constitutional jurisdictions. Through routine bi-level discussions, Ottawa had already involved the provinces in the GATT's Tokyo Round of negotiations in the 1970s (Lavelle, Barrows, and Traficante 1988, 9). At the Halifax First Ministers' Conference in 1985, the provinces sought greater control over CUFTA's looming negotiation. Although Prime Minister Brian Mulroney agreed to these demands in principle, the initiative bore little fruit. Ontario's subsequent call for a formal organizational structure to ensure effective federal-provincial collaboration and communication in the negotiation process was torpedoed, leaving the provinces to find out about CUFTA's breadth and depth when the "Elements of the Agreement" legal text was publicly released in late 1987 (ibid.).

Ontario's unhappiness following its unsuccessful attempt to gain a foothold in the CUFTA negotiations ultimately led to the creation of its Continuing Committee on Trade Negotiations (Lavelle, Barrows, and Traficante 1988, 9). Ontario representatives subsequently did work alongside federal officials during the NAFTA negotiations in the early 1990s, when the NDP government under Premier Bob Rae sought to convince Ottawa to strengthen a number of the sections and clauses of the draft agreement that Queen's Park deemed to be of strategic importance to its interests respecting the Mexican automotive industry, environmental and labour standards, provincial sovereignty, and dispute-settlement mechanisms (Abelson and Lusztig 1996, 687). Frustrated by its actual exclusion from NAFTA's negotiating process, the Rae government in 1993 shifted the responsibility for trade negotiations from the Ministry of Economic

Development and Trade to the more politically engaged Ministry of Intergovernmental Affairs. Subsequently it broke off its cooperation with Ottawa over the issue (Abelson and Lusztig 1996, 689).

This ineffectual shuffling toward genuine involvement in multilateral trade negotiations shows that provincial participation in the talks with Europe marked a major step in federal-provincial relations, but it does not mark a development toward any region-state status. Ontario's sitting shoulder-to-shoulder with its subfederal counterparts can better be understood as a reactivation of its participation in Canadian federalism. If its relative weight in these deliberations has diminished, this is not because it is engaged in different, extra-national operations but because its industrial economy has lost ground while Alberta's resource-exporting fortunes have flourished. After it parted ways with Ottawa on the NAFTA talks, Queen's Park renewed and strengthened its partnerships with Baden-Württemberg and Jiangsu. While the tides of provincial politics seem to have affected its willingness to engage in negotiations alongside the federal government, every government in Ontario since the 1980s has at some level fostered and recognized the ongoing value of its international partnerships with other subfederal entities. The federal government's invitation of all ten provinces to the CETA negotiating table suggests not that Ontario is becoming a more engaged international actor, but rather that an established provincial involvement in the federal government's multilateral negotiations is continuing.

CONCLUSIONS

In the late 1990s Ontario formed such a strong component of the continental economy, whose centripetal processes had been given a major fillip by NAFTA's border-lowering rules, that it could well be understood as detaching itself from its Canadian moorings in order to integrate more intimately with a triumphant United States that, in turn, had simultaneously managed to get many of the same, US-favouring norms entrenched in the World Trade Organization's global rulebook. Indeed, at the continental level, the tri-national North America's global footprint expanded throughout the decade from 25 to 31 percent of global GDP (Pastor 2011–2012, 17). And if at the provincial level, Ontario's 13.5 million population and \$675 billion GDP (Ontario. Ministry of Finance 2013) compared favourably with Quebec's 8 million population[4] and \$346 billion GDP,[5] Scotland's

[4] Population du Québec, http://www.stat.gouv.qc.ca/donstat/societe/demographie/struc_poplt/qc_1971-20xx.htm.

[5] Gross Domestic Product, Statistics Canada, http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ15-eng.htm.

5.3 million population[6] and £127 billion GDP,[7] and Catalonia's 7.5 million population[8] and €208 billion GDP,[9] there were good grounds for thinking that the province's heart might beat in a greater entity than Canada.

Since *Heartland*'s publication in 1998, Ontario's international trade trends show that its drift away from the Canadian federation did not continue. Due to a number of developments occurring at the global, continental, federal, and provincial levels, Courchene and Telmer's projections failed to play out. Globally, the rise of non-Western powers – in particular, China – cast a shadow on the economic strength of the United States, and caused business leaders and policy-makers across Canada to pursue new ties with East Asian markets. Ontario's aggressive pursuit of relations with Jiangsu speaks to this newfound preoccupation with China, but it hardly helps it along the road to being a North American "motor" integrated closely with its neighbouring Great Lakes states to the south. Ontario's nascent engagement with the Far East indicates it is a province seeking to foster relations overseas. This does not, however, suggest that it is drifting away from the Canadian project or that it is unique within the federation: even tiny Prince Edward Island has nurtured a healthy relationship with East Asia (specifically, with the Chinese province of Hainan; People's Government of Hainan Province 2014).

Following the shock of Al-Qaeda's destruction of the US World Trade Center in New York and part of the Pentagon, the United States turned itself from an extraverted trade-liberalization evangelist into an introverted anti-terrorist fortress. The border-raising measures that Washington caused the government of Canada and Mexico to apply slowed down the growth of continental trade flows and, in interrupting already integrated corporate production chains, constricted cross-border flows of investment as well. New compliance costs constituted non-tariff barriers to trade that disaggregated previously integrating economies and acted as disincentives to closer market integration. When combined with the onslaught of cheaper Chinese imports, the devastation of the 2008 sub-prime financial crisis, and Washington's crippling expenditures on two fruitless wars in the Middle East, it was small wonder that the North American economy's share of global GDP fell back to 25 percent by 2011.

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[6]Mid-2011 and Mid-2012 Population Estimates Scotland, *National Records of Scotland*, http://www.gro-scotland.gov.uk/files2/stats/population-estimates/mid2012/mid-2011-2012-pop-est.pdf.

[7]Gross Domestic Product (GDP), *The Scottish Government*, http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy.

[8]Municipal Population Register, *Institut d'Estadistica de Catalunya*, http://www.idescat.cat/territ/basicterr?TC=8&V3=669&V4=446&ALLINFO=TRUE&PARENT=1&V0=3&V1=0&CTX=B&VN=3&VOK=Confirmar&lang=en.

[9]Gross Domestic Product, *Institut d'Estadistica de Catalunya*, http://www.idescat.cat/economia/inec?tc=3&id=8150&lang=en.

Within this larger picture of the United States' reversed fortunes, its Buy-America isolationism gave its two neighbours a clear message: putting all their economic eggs in the US basket by betting on economic integration with the world's largest economy had been a historic mistake. While completely extricating themselves from their US dependency was not possible, greater diversification of Canada's and Mexico's international economics links was worth trying.

As Ottawa negotiated trade and investment agreements with dozens of countries overseas, particularly Europe, China, and India, Ontario did its best to strengthen its own links with these markets. As a result, its dependence on a now declining United States decreased somewhat in favour of an increased association with overseas markets. Rather than deepening its continental interests, Ontario is pursuing its global economic diversification. Mirroring trends observed throughout the world, Ontario has forged stronger links with markets overseas, but without developing any significant "actorness" as one of the world's new region-states.

The importance of this shift should not be exaggerated, because the province remains deeply and dependently integrated in the United States' political-economic system. The dismantling of Ontario Hydro had little to do with Queen's Park's disengagement from interprovincial connections and everything to do with the US Federal Energy Regulatory Commission's forcing this Canadian supplier of electricity to the US market to conform to Washington's demand that the public utility be privatized (Griffin Cohen 2007).

At the federal level, the election of the Harper government in 2006 marked the beginning of a renewed commitment in Ottawa to the promotion of resource extraction and export. As journalist Michael den Tandt (2014) of the *National Post* noted, the Conservatives have throughout their mandate had an "overwhelming strategic emphasis on resource extraction." This emphasis on global raw exports, combined with the rapid rise in commodity prices, has driven the dollar to new heights, which is bad news for Ontario-based manufacturers seeking to build or maintain strong relations with the American market.

As Ontario's traditional key industries have been undermined, its prosperity has eroded and the country's centre of political gravity has shifted westward. The newly needy Ontario is facing a future in which it is neither the Canadian heartland nor a North American motor. The reality of 2014 appears very different from the reality in 1998, when *Heartland* went to press.

Institutional cases of inter-subregionalism remain interesting examples of provincial foreign policy, but are of impressively *minor* significance. Ontario's agreements with Jiangsu and Baden-Württemberg have borne some fruit, but more in the arena of cultural and governmental exchanges and partnerships than in economic transformations. Considerable cross-ownership in corporations between the two regions thanks to inter-subregional relations does not prove a major change of course for the province. Meanwhile, its ties with the rest of Canada have not weakened further. Indeed, Ontario's new role in international trade negotiations actually confirms its continuing *federal* orientation.

The authors could not know that, in an era of anti-terrorist paranoia, national governments would strengthen their powers as security states, that the twenty-first century would see the United States circle its wagons in an attempt to create a total immunity against foreign terrorists, and that, in so doing, it would stop in its tracks the late twentieth-century promotion of North American integration through the cross-border circulation of goods, capital, and people.

By the mid-2010s, Kenichi Ohmae's (1995) once-arresting notions seem barely applicable. Ontario may be an area with "a common interest and common geography," but it cannot accurately be described as "not necessarily bounded or limited by national borders" (81). It has always been a "unit of economic analysis" but is not necessarily the "territorial sphere most suited to the interaction of political, social, and economic processes in an era of 'globalization'"(100). It is certainly a "port of entry" (ibid.) into the national economy for transnational capital, but providing the locus for considerable foreign direct investment is neither new for Ontario nor out of character for any Canadian province. In the context of an impressively resilient Westphalian nation-state, Ontario can hardly be categorized as a burgeoning region-state.

Thomas Courchene nevertheless deserves celebration for having put forward the parameters for monitoring Ontario's continuing problems with heartland failure. Had the events of the past 15 years – 9/11, the emergence of Fortress America, the rapid rise of China, and the cataclysmic global financial crisis of 2007–2009 – played out differently, it is likely that the predictions of *Heartland* would have borne out. In summation, the Courchene-Telmer paradox can be reformulated for the early twenty-first century: while Ontario has become increasingly *globalized*, its political elites, along with its ordinary citizens, still remain the most unhyphenated of all Canadians. But this paradox contains its own resolution: it is surely *because* Ontario's elites have no culture of autonomy and are perfectly content to have their province be a cog in other machines that the province's economy has developed with a low government capacity and no political dynamic similar to that of Quebec, Scotland, or Catalonia that would lead it to seek greater autonomy within its federal partnership or a greater role in its continental context. The would-be region-state remains a mere Canadian province – and a have-not one at that.

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D CANADA'S CONSTITUTIONAL CHALLENGE

CANADA'S CONSTITUTIONAL LEGITIMACY DEFICIT: LEARNING TO LIVE WITH IT

DAVID CAMERON

THE BREACH IN CANADIAN CONSTITUTIONALISM

The 1982 patriation of the Canadian Constitution is a highly contested moment in the country's history. It divided Canadians at the time, and – witness the 2013 controversy over Chief Justice Bora Laskin's alleged conduct during the Supreme Court's consideration of the Patriation Reference – it divides us still.[1]

Although I was working for the Government of Canada on the federal side during the 1982 constitutional round, I believed the patriation of the Constitution without Quebec's consent created a serious legitimacy deficit, given that that province, home to one of the country's two linguistic communities, had originated postwar constitutional discussion and needed, on any principled view, to be a consenting part of any new constitutional settlement. It is problematic in a federation to think of democratic legitimacy deriving simply from popular sovereignty, from "the will of the people" at the level of the country as a whole. Federalism, with its constitutionally defined federal and constituent units, pluralizes the notion of "the people," and it disperses sovereignty. Implicitly, then,

[1] A recent book alleged that Chief Justice Bora Laskin improperly kept Canadian and British officials informed about the progress of the patriation discussion within the Supreme Court (Bastien 2013). The Supreme Court undertook an internal investigation, and found no evidence of impropriety.

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

it disperses the sources of legitimacy. Thus the vast majority of federal constitutions require the consent of some or all of the federal units to amend the country's basic law. Equally, in a binational or bicommunal polity, it is difficult to understand how a constitutional settlement that is rejected and opposed by one of these communities can be regarded as legitimate. That is why Pierre Elliott Trudeau's argument that the patriation of the Constitution was legitimate because he had 74 out of the 75 federal seats from Quebec was rhetorically clever, but specious. The formal opposition of the National Assembly of Quebec to patriation confirmed the existence of a breach in the Canadian constitutional order that has not been repaired to this day.

Not everyone accepts this view, but it is the dominant opinion in Quebec, and it is held by many in the rest of Canada: the Meech Lake and Charlottetown Accords were abortive attempts to mend that rent in Canada's constitutional fabric. I was a strong supporter of Meech Lake, and lamented its collapse. I have long believed that, until the people of Quebec through their National Assembly give their consent to the constitutional arrangements under which they are ruled, the country will remain fragile and vulnerable to fragmentation during periods of crisis.[2]

I still believe that there was a breach in legitimacy in 1982, but I am now not so sure that as a result the country will remain fragile and vulnerable. In this chapter, I intend to explore the proposition that Canada is less fragile and vulnerable than some of us have thought – less fragile, because, I will argue, a country rests on multiple sources of legitimacy, not just one, which means that a gap in one of the sources does not comprehensively deprive the state of all political legitimacy. Risks to the country's stability in the future will derive, not from the historical breach in legitimacy, but from systematic mismanagement or from a crisis that shakes the federation to its foundations.

If this is so, then the standing challenge of finding a way to get Quebec to sign on to the Constitution when the time is right should perhaps be set aside in favour of the more prosaic need to run the country well. What might plausibly be done constitutionally at some point will not mend the breach, and what might mend the breach cannot plausibly be done. Let us consider, for example, the 2006 parliamentary resolution recognizing the Québécois as a nation within Canada. This initiative was supported by the government and the National Assembly of Quebec, and opinion

[2] An alternative view would contend that on two occasions since 1982, Quebecers made mega-constitutional choices through referendums. The first time, they rejected the Charlottetown Accord, and in 1995 they rejected the sovereignist option, albeit by the thinnest of margins. While this is true, very few francophone Québécois would accept that these acts of constitutional choice-making have displaced or dissolved the breach of 1982.

polls suggest, not surprisingly, that it was well received by Québécois, although less well in the rest of Canada.[3] But there was no suggestion at the time that this gesture might lead Quebec to reconsider its refusal to sign on to the 1982 Constitution.

Would a constitutional amendment, recognizing the existence of the Québécois as a people, do the trick? Several years ago, a colleague and I developed the idea that the recognition of Quebec's status within Canada could be constitutionalized via a bilateral constitutional amendment, explicitly recognizing its French language and culture, rather in the way that Quebec replaced denominational with linguistically based schools in 1997 (Cameron and Krikorian 2008).[4] We argued that there are good reasons to believe that this could be done, given the right alignment of political forces in Ottawa and Quebec City, since it would involve only the federal government and Quebec, but not the other provinces. This might deliver the constitutional recognition long sought by many in Quebec.

However, I have come to believe that it is unlikely that even this would induce Quebec to sign on to the 1982 Constitution and repair the breach in legitimacy. There are two reasons why this is so. The first is that, to accept that a constitutional amendment in itself is sufficient to repair the breach would appear to many Quebecers to definitively set aside all prospect of any future substantive constitutional change in Quebec's favour; even if only theoretical, it would seem like a loss of leverage. The second reason turns on the idea of recognition. Meech Lake's strong appeal rested in part on the fact that the rest of the country was formally recognizing Quebec for what it was in its own eyes; the shock and anger in Quebec at the rejection of Meech arose out of the realization that it did not. The bilateral constitutional amendment does not perform this broad recognition function. In fact, the reason why it is practicable is because the rest of the country is not given a voice in the proceedings.

If it is correct that low-key, bilateral initiatives that do not draw in the rest of the country are not sufficient, I would argue that what then seems to be necessary – some more broadly based, countrywide redrawing of the Canadian social contract on terms that Quebec would accept – is not possible. Meech Lake was the instrument that would have accomplished this, but it was not accepted in English-speaking Canada, and in my view,

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[3] The resolution has a very low public profile. For a time the PQ sought to use the resolution as a stick to beat the federal government with, arguing that there must be policy consequences to such a declaration. This drew fleeting attention to the resolution, although not in a way that increased its legitimacy value.

[4] Interestingly, it was former PQ premier Pauline Marois who presided over the constitutional establishment of linguistically based schools when she was Quebec's minister of education.

given the evolution of the country, it is even less likely that its equivalent would be accepted today.

I think here we are in fact entering "abeyance country." Many will be familiar with Michael Foley's book, *The Silence of Constitutions: Gaps, "Abeyances" and Political Temperament in the Maintenance of Government* (1989), which argues that sophisticated constitutional societies cope with conflicts too deep to resolve by avoiding them, burying them beneath the surface of political and constitutional life. The parties to the conflict become mutually complicit in working to ensure that these unresolved, unresolvable issues do not boil up unexpectedly and put the whole constitutional order at risk. The significant but flawed achievement of 1982 sits atop just such an unbridgeable gulf.

If you follow the logic of this analysis, the task of politics in the Canadian context is not to look for an opportunity to formally resolve the conflict, but rather to seek to maintain the circumstances in which the two incompatible and mutually contradictory visions of the country never move to centre stage in our constitutional and political discourse. For an abeyance strategy to be successful, each vision of the country needs to have adequate space within which it can be expressed in practice and in daily life, even while any frontal effort to reconcile the two, especially at the symbolic level, is avoided.

It appears that considerations other than high constitutional politics – like living without fuss, and without serious inter-community tensions, and enjoying the practical capacity to develop your society as you choose – are more important in shaping the acceptability of Canada in the eyes of Quebecers at this stage of their existence. Interest in reopening the constitutional debate is low in Quebec, as is the desire to hold another referendum on sovereignty.[5] It hasn't hurt, either, that in recent years Canada has been doing relatively well economically while the rest of the western world has been going through terrible economic turmoil. Maybe it is time to recognize that *not* addressing the issue – not trying to redraw the Canadian social contract – will lead to the strengthening of the country, rather than to its demise. Arguably, that is the lesson of our recent past.

[5] "Sondage Léger Marketing – Constitution: vive le statu quo!" *Le Devoir*, 20 March 2013. It is ironic that the controversy in the winter of 2013 about whether to amend the Clarity Act's provisions regarding a future sovereignty referendum took place chiefly in the House of Commons among the federal opposition parties, with little resonance in Quebec (Hébert 2013a).

THE QUEBEC ELECTIONS OF SEPTEMBER 4, 2012, AND APRIL 7, 2014

There is another thing needed if abeyances are to be kept below ground, namely, the shared desire that this be so on the part of the actors on each side of the divide. If one of the major actors wishes to force a confrontation over these profoundly unresolved matters, it will be difficult to avoid. This brings us to the two most recent Quebec elections. The Parti Québécois won the election of September 4, 2012, and reigned until its defeat at the polls in April 2014. Clearly, during its 18 months in power, the PQ had no wish, implicit or otherwise, to avoid or skirt the irreconcilable differences that lie between English-speaking and French-speaking Canada. Quite the reverse; they wish to exploit those differences to unsettle the Canadian state. In Foleyesque terms, the PQ believes that the abeyances between French and English are so deep and unbridgeable, the schism so radical, that no overarching just and consensual political and constitutional order can be sustained. They have never given up on this conviction; their primary task, as they see it, is to persuade the Québécois of the validity of this view.

Given their modest electoral victory in September 2012, the PQ could not interpret the result as a mandate to pursue sovereignty in any serious way. The Quebec electorate found a way to give political power to the sovereignist party without licensing the aggressive pursuit of sovereignty itself. With the Coalition Avenir du Québec not ready for prime time, the Liberals overdue for a period in the penalty box, and the PQ committed to pursue sovereignty or create the conditions necessary to make that pursuit possible, Quebec voters granted the Parti Québécois the most tentative of mandates. The PQ won a minority government with a lower popular vote than they had received in the previous election, coming in just four seats ahead of the discredited Liberals.[6] Quebecers thus kept their options for the future open, and pretty much ensured that the sovereignty and referendum questions would be placed firmly on the back burner. This outcome was well attuned to an electorate with little interest in pursuing sovereignty.

Not being able to address the sovereignty question directly, the PQ government instead sought to pump up the nationalist volume by manufacturing a divisive crisis where there was none. Their Charter of Values articulated an understanding of *laicité* or secularism in Quebec and, if implemented, would have forbidden public-sector employees from wearing or displaying "conspicuous" religious symbols. It also would have

[6] The results were: PQ, 54 seats and 32 percent of the popular vote; Liberals, 50 seats and 31 percent of the popular vote; CAQ, 19 seats and 27 percent of the popular vote. In the previous election, the PQ won 35 percent of the popular vote.

made it mandatory to uncover one's face when delivering or securing public services in the province. The Charter appealed to elements of the PQ's hard nationalist base, but at the expense of deeply unsettling many members of Quebec's minority communities. Party strategists calculated that an early election call could return them to power, possibly with a majority government, and that the election itself would help to awaken the nationalist feelings of the French-Canadian majority in the province.

The April 2014 election results told a very different story. With the help of the sovereignist fist pump of their star recruit, Pierre Karl Péladeau, the PQ went down to a humiliating defeat, losing 24 seats, receiving the lowest popular vote in two and a half decades, and becoming the first government since Jean-Jacques Bertrand's Union Nationale administration in 1970 to be booted out after a single term in office. Philippe Couillard's Liberals gained 21 seats and formed the government with a comfortable majority.[7] The outcome was a clear rejection of what the Parti Québécois had on offer. If the PQ elites wanted to regenerate conflict and division within Quebec and Canada, it was apparent that the voters of Quebec did not.

Why is there little current interest in sovereignty in Quebec? One might have thought that the resurgence of Catalan nationalism in Spain and the prospect of a 2014 referendum on independence in Scotland might reawaken interest in the national question in Quebec. What is more, to the extent that interest in sovereignty is linked to the state of social and political relations with the rest of Canada, and in particular intergovernmental relations between the Government of Quebec and the federal government, it could be argued that there are lots of reasons for Quebecers to feel discontented. The country is led, after all, by a staunchly conservative Albertan who, having tried without success to make yards in Quebec, has learned that he can govern without it. Prime Minister Stephen Harper demonstrated during the prorogation contretemps in 2008–09 that he was prepared to throw the national-unity baby under the bus in order to stay in power, offending many Québécois with his corrosive assault on the Bloc as a bunch of separatists. He paid a stiff electoral price in Quebec for doing this, dropping 5 percent in popular vote and losing half of his 10 seats there in the May 2011 election, despite gaining 23 seats nationally and securing his first majority government.

In addition, the federal government's celebration of the monarchy, its aggressive support of Israel, the abolition of the gun registry, its criminal-justice position, its effort to create a national securities regulator,

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[7] The results were as follows: PQ, 30 seats and 25 percent of the popular vote; Liberals, 70 seats and 41.5 percent of the popular vote; CAQ, 22 seats and 23 percent of the popular vote.

its recalcitrance on the environment – all of these policy positions are antithetic to mainstream opinion in Quebec. One might have thought that there was plenty to work with if a Quebec government wanted to pick a nationalist fight with Ottawa, and stir up feelings of anger and alienation in Quebec.

Yet it didn't happen. The Parti Québécois seemed to be pretty much alone in the boxing ring, and at serious risk of injuring itself. Part of this is the result of an Ottawa–Quebec City dynamic that is very different from that which prevailed when the Liberals were in power in Ottawa. During that time, there was a "within-the-family" quality to the relationship, with federal ministers representing Quebec more than willing to go head-to-head with their Quebec counterparts, challenging their arguments and criticizing their policies (Hébert 2013b). It is very different today. The Conservatives, governing in Ottawa, do not have a strong political base in Quebec. Prime Minister Harper's approach has been very different from that of, say, former Prime Minister Chrétien. Harper displayed little interest in doing battle with the PQ and Premier Marois, which meant that their sallies, meant to provoke, tended to fall to the ground. Where once there was a fear on the federal side that, if left uncontested, the arguments of the sovereignists would carry the day, the effect of the Harper strategy of non-engagement is to deprive the sovereignty issue of oxygen, particularly given the fact that the Québécois are not currently preoccupied with the matter. But there is more than simply the tactic of not rising to the bait in play here. There are deeper philosophical convictions about how to understand and operate Canada's federation; these have considerably altered the country's intergovernmental reality. To understand what has happened, we need to move back in time.

THE REAPPEARANCE OF THE THEORY OF CLASSICAL FEDERALISM

There is a tradition of thinking in French-speaking Canada that goes back to the founding of the country in 1867. The notion that Confederation was as much about separation (of Upper and Lower Canada) as it was about union (of the four original British North American colonies) played an important role in the discussions of the day, and fostered a powerful interpretation of the real meaning of the new federal association. By entering into Confederation, French Canada was gaining a significant measure of self-government, and the space to manage its own affairs within Quebec separately from the English-speaking Canadian majority. This idea lay behind the emergence of the theory of classical federalism, which generations of French-speaking Canadian thinkers in the twentieth century contended was the proper way of understanding the Canadian federal association: watertight compartments of federal and provincial authority, with each jurisdiction tending to its own responsibilities and staying out of the sphere of the other.[8] Maurice Duplessis lived by that credo, playing what was generally a defensive game vis-à-vis the federal government throughout much of his career as premier; believing in limited government, he was faced, especially after the Second World War, with an activist government in Ottawa, flush with public resources and bursting with ideas about how to spend them. To back up his resistance to Ottawa's activism, Duplessis established the Tremblay Commission, which developed what was perhaps French-Canada's fullest philosophical justification of the classical view of federalism.[9] French-speaking Canadian intellectuals of the day espoused this federal theory. It remained a significant current in the debate in the decades after the Quiet Revolution, although not in the traditionalist form articulated by the Tremblay Commission (see the discussion in Coleman 1984; see also Rocher 2009). The effort to confine the federal spending power, limiting or ending its use in areas of provincial jurisdiction, rested on the belief that even if the spending power were not subject to effective legal limitations, a broader federal ethic would acknowledge the justice of constraining it in the context of a federal association involving, not simply ten provinces, but two national communities.

Largely satisfied with the expanding role of Ottawa during World War II and thereafter, English-speaking Canadians in the postwar years generally tended to be much less scrupulous about patrolling the frontier between federal and provincial jurisdiction. Successive federal governments evinced no great desire to see their freedom of action constrained, particularly when the use of the spending power in postwar Canada had played such a significant role in building up the Canadian welfare state and connecting Ottawa to citizens in the areas that mattered most to them. The perennial debates on federal fiscal transfers are saturated with conflicting arguments about the extent to which Ottawa has the right to intervene in the provincial domain. The Canada Health Act's prohibition of extra billing is emblematic of the federal government's traditional desire to influence provincial behaviour in fields clearly within the jurisdiction of the provinces.

Enter Stephen Harper and his theory of "open federalism." Perhaps somewhat surprisingly at this late stage in our country's history, we have a

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[8] While this view became important in Quebec in the twentieth century, it did not originate there. It is Oliver Mowat, premier of Ontario from 1872 to 1896, who was the first champion of provincial rights. Indeed, the provincial-rights movement in Ontario might also be understood in part as a claim relating to autonomy in a binational community – in this case, autonomy vis-à-vis Catholic, French-speaking Quebec.

[9] Royal Commission of Inquiry on Constitutional Problems, established in 1953 and chaired by Justice Thomas Tremblay.

prime minister who seems to believe in a more classical view of federalism and the division of powers, and who is to a substantial degree prepared to live by its canons. Stephen Harper's political formation in Calgary no doubt contributed to the emergence of this view of the country; "building firewalls" is simply a particularly aggressive way of articulating the necessity of protecting provincial jurisdiction and provincial resources from the incursions of the federal government.[10] His strongly conservative ideology aligns neatly not only with small government in general but with decentralized government, and with clearer, simpler lines of accountability. In addition, the political weakness of the Conservative Party in Quebec on his watch makes careful respect for Quebec's constitutional autonomy a prudent and sensible strategy. Finally, I think, there is federal theory. As we shall see below, Stephen Harper simply appears to believe in classical federalism, and is severely critical of the traditional interventionism of the Liberal Party. It is not, I think, an approach designed exclusively with Quebec in mind, but is meant to be a federal theory of general application. However, there is no doubt that its relevance to Quebec is meant to be one of its virtues.

As Adam Harmes (2007) has shown, Stephen Harper began outlining his approach to the management of the federation some time ago, starting with an article in the *National Post* in October 2004.[11] There, he called for renewed respect for the constitutional division of powers, vigorous federal government leadership in areas of clear federal responsibility (defence, maintenance of the economic union), and the need for a more principled and orderly approach to federal-provincial-territorial relations, in contrast to then Prime Minister Paul Martin's let's-make-a-deal ad hocery. The *Policy Declaration*, approved at the March 2005 Conservative National Policy Convention, promised the restoration of "the constitutional balance between the federal and provincial and territorial governments," noting the need to "ensure that the federal spending power in provincial jurisdictions is limited," and accepting the existence of a fiscal imbalance.

The Conservative election platform for the 2006 federal election promised "a charter of open federalism" and explained the fiscal imbalance as the result of large federal surpluses combined with provincial deficits arising out of high social service costs. The Conservative's Quebec campaign document recognized the importance of provincial autonomy for Quebec and "the special cultural and institutional responsibilities of the Quebec government." In a speech to the Quebec Chamber of Commerce

[10] As a founding member of the Reform Party, Stephen Harper believes not only in provincial autonomy, but in the vigorous participation of Canada's regions in the affairs of the national government. His long-standing desire to reform the Senate is evidence of this.

[11] I rely on Harmes's excellent article for the substance of the next three paragraphs.

in December 2005, Harper said he would "monitor" the use of the federal spending power, which in his view was "outrageous" and which, echoing Premier Robert Bourassa's vocabulary, had given rise to "domineering and paternalistic federalism."

After the Conservative minority government was elected in early 2006, Prime Minister Harper said in an interview that the federal government "has gotten into everything in recent years, not just provincial jurisdiction but now municipal jurisdiction," and that he would rather "see Ottawa do what the federal government is supposed to do."[12] In a 2006 speech to the Board of Trade of Metropolitan Montreal, he said that open federalism "means respecting areas of provincial jurisdiction. Open federalism means limiting the use of the federal spending power…. Open federalism represents an opportunity to free Quebec from the trap of polarization."[13]

The fullest statement of the open federalism approach is found in a discussion paper annexed to the 2006 federal budget, which was entitled *Focusing on Priorities: Restoring Fiscal Balance in Canada*. It speaks of how unplanned federal surpluses have led the federal government to introduce significant new spending initiatives in areas of provincial jurisdiction, while neglecting its own responsibilities, thus blurring accountability; how fiscal transfers need to be put on a principle-based, long-term track; and how it is important for both orders of government to work together to increase the efficiency and competitiveness of the economic union (Canada. Department of Finance 2006).[14]

This articulation of open federalism constitutes a highly significant shift in Ottawa's traditional conception of its role in the federation, as one can see if one thinks of the string of Liberal governments from Pearson to Martin. With the emergence of neo-nationalism and the sovereignty movement in Quebec in the 1960s, the country embarked on an extended period of what might be called competitive nation-building in Quebec City and in Ottawa. Faced with a feeling of primary loyalty to Quebec among French-speaking Canadians in that province, and the gradual emergence of province-building strategies in several other provinces, successive federal governments, certainly those of Trudeau and Chrétien, were deeply concerned to deliver what they believed would be loyalty-generating programs and services to Canadian citizens, and many of those fell within provincial jurisdiction. There was a lengthy period of jockeying for constitutional position and competing for the loyalty of Canadians. With the decline in the strength of Quebec nationalism

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[12] Interview with L. Ian Macdonald in *Policy Options*, March 2006.

[13] Address to the Board of Trade of Metropolitan Montreal, http://www.conservative.ca/.

[14] Harmes explicates clearly how this federal theory aligns with Stephen Harper's neoliberal economic philosophy.

and the election of the Conservatives to office in 2006, there has been a marked shift in approach.

Prime Minister Harper clearly recognizes that, on prudential political grounds if nothing else, the federal government will have to continue to support the major transfer programs to the provinces,[15] but his effort to set out early his government's level of commitment suggests a desire to settle this issue, not by exhaustive quid pro quo negotiations in which the federal government potentially gains some oversight or shaping role in return for granting the money, but by making it clear that Ottawa will provide what it sees as a reasonable level of resources without expecting much in the way of return (Canada. Department of Finance 2011).[16] His approach suggests as well his desire to de-dramatize intergovernmental relations, and to reduce the profile of federal-provincial-territorial summit meetings in the management of the federation. He is not strongly attracted to the holding of first ministers conferences as a means of managing the federation, and has called very few during his tenure of office.[17]

Stephen Harper's hands-off approach denied the Parti Québécois government an easy target. The traditional critique of the interventionist use of the federal spending power is harder to sustain, as is the more general contention that the default inclination in Ottawa is to interfere in provincial affairs. If a credible claim could have been mounted that the federal government was undermining Quebec's identity and obstructing the legitimate pursuit of what it sees as its distinctive socio-political model, that would have resonated widely in Quebec, but such an argument cannot seriously hold water in the present circumstances. And it is a good deal more difficult to make nationalist headway by attacking the conduct of the federal government in its *own* sphere of jurisdiction.

More difficult, certainly, but perhaps not impossible, at least in the longer term. For the Harper government has – again consistent with its open federalism approach – been aggressively pursuing its ambitions

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[15] Canada Health Transfer, Canada Social Transfer, Equalization, and Territorial Formula Financing.

[16] The 2011 announcement was made in anticipation of the expiration of the current arrangements in 2013–14.

[17] At the July 2012 meeting of the Council of the Federation, the premiers called for "meaningful consultation" and "formal discussions" between Ottawa, the provinces and the territories "before modifications are made to any of the major federal transfer programs, as these constitute the pillars of Canadian fiscal federalism" (Council of the Federation 2012). The sensitivity of the process of renegotiating the federal transfers is shown by the fact that the Quebec government pulled out of a Council of the Federation working group on health-care innovation on the grounds that the other provinces and the territories were steering toward co-management and the acceptance of federal intrusion into provincial jurisdiction (Seguin 2013).

within the policy domains for which it is responsible: lowering taxes and offering steady management of the national economy, including the effort to establish a national securities regulator; tilting Canada's Middle East policy in favour of Israel; giving vigorous support to the military; following the United States in environmental policy; abolishing the long gun registry; getting tough on criminals; celebrating the Conservatives' preferred national symbols (the Queen and the War of 1812, rather than the Charter of Rights); and making the melting North a high priority.

Some of these national policy initiatives are unobjectionable, and are likely to attract support in the province, but several appear to be antithetic to majority thinking in Quebec.[18] The recent tightening of conditions for the receipt of Employment Insurance payments is causing concern as well. So far, though, critical opinion about the overall direction of federal policy does not seem to have crystallized in Quebec, but it may at some point, and it is hard to imagine that, at least in this respect, the federal Conservatives will have a good story to tell to Quebecers in the next federal election. The broadly neoliberal agenda of the Harper Conservatives holds little appeal in Quebec, where the centre of political gravity is a good deal to the left of the current orientation of the federal Conservative Party. Nevertheless, public opinion surveys on the low level of support for sovereignty or for reopening the constitutional file, the PQ's performance in the 2012 and 2014 Quebec elections, and the general difficulty the PQ government has had in advancing its sovereignty agenda – all seem to suggest that at the moment Quebecers would prefer to live in the country rather than try to dismantle it, and a good case can be made that the federal government's management of the federation, if not its political ideology, has had something to do with it.

What image of the country is implied by the present federal government's implementation of the theory of open federalism? It seems to me it bears some resemblance to a two-nations conception of Canada, without the name. The sense of shared identity is strong enough in the English-speaking provinces to prevail even if the English-speaking provinces increasingly exercise their responsibilities with reduced federal leadership and a diminished national policy context. In Quebec, the vigorous sense of a distinct Québécois identity will be sustained and may even be deepened, as the government and National Assembly fashion policies autonomously and with limited intergovernmental discussion. Each linguistic community will fashion arrangements best suited to its understanding of its distinctive needs and aspirations, though English-speaking Canada's will be mediated largely through the provinces.

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[18] Particularly troublesome would be the emergence of a pattern of neglect with respect to the representativeness of the country's common institutions, extending, for example, to the error in appointing a unilingual auditor general (Taber 2011).

The maintenance and possible deepening of Canada's binational reality will be troubling for those who believe that the fragility of the country will be increased as a result. But there may not be cause for concern on these grounds. Canada, properly speaking, is not, and never has been a nation-state. It has always contained more than one national community. What we may be returning to is a modern version of the *status quo ante*. Until the Quiet Revolution, the French and English in Canada understood themselves to be living in clearly different communities – during much of our history, defined not just by language and geography, but by religion, culture, and the character of each community's relationship to emerging industrial society. The sovereignty movement and the 1982 amendments to the Constitution, particularly the introduction of the Charter of Rights and Freedoms, forced Canadians to reflect on what they had in common and on what the grounds of Canadian citizenship were. It would be difficult to argue that any serious degree of consensus emerged. The re-emergence of greater distance between these two communities is not without historical precedent, and may actually foster more public contentment with the country's state of affairs than did the "in-your-face federalism," which in some measure prevailed between the 1960s and the 1990s.

This may be fair enough as far as it goes, but a federation, however one understands the distribution of powers or the degree of autonomy of its component units, must make provision for a set of common institutions and processes to take care of those issues that fall to the central authority. Here, as we have seen, there are grounds for concern. Quebec's demographic weight in the federation is in steady decline, and its representation in the councils of the current federal government is minimal. If national governments are regularly formed without significant political representation from Quebec, and govern in a manner that is largely antithetic to Quebec's interests or the preferences of Québécois, the sense of being an indispensable player in the ongoing practice of federal democracy is reduced, as is the feeling that the system is addressing one's interests. In these circumstances, national unity – or should we say "binational unity"? – could be threatened. System maintenance has always been an elite project in Canada, but no less worthwhile for all that; however, that process relied on organized networks and venues – including political parties, party caucuses, cabinets – where representatives of the communities could address conflicts and negotiate national policies.[19] If these are attenuated, the capacity for mutual accommodation and the timely resolution of conflict between the two national communities decreases as well.

[19] David Cameron and Richard Simeon (2009) found that civil society's leaders had a special role in managing the French-English reality in the voluntary sector.

THE QUESTION OF LEGITIMACY

Let us, in the light of this discussion, return to the matter of legitimacy. As children of the Enlightenment, many of us have some version of the social-contract model in our heads, in which a political order is constituted by the will of the people, ostensibly at a particular historical moment, namely, at the founding of the regime, in the form of an agreement on a constitution. This is a compelling understanding of the source of legitimacy, and many democratic states have come into being in part as a result of a popular referendum, or – where political entities of some sort already exist – with the agreement of the people's representatives. This is legitimacy grounded in active consent. Once a state is up and running, constitutional amendments may be understood as a kind of alteration in the terms of the original social contract, often held to the same high standard of approval that governed the original act. It is, generally speaking, this understanding of political legitimacy that leads many people to view Quebec's refusal to accept the 1982 constitutional amendments as an indicator that there has been a breach in the legitimacy of Canada's constitutional foundations; Quebec and the Québécois did not agree to the rules – or the amendment of the rules – under which they are governed.

If there is truth in the contention that the breach is unlikely to be repaired in the foreseeable future, how is one to understand the present situation? Are the Québécois simply living under an illegitimate Constitution? Does the refusal to recognize the legitimacy of the 1982 patriation of the Constitution deprive the Canadian political system of its authority?[20] In some way, clearly it does, but I want to argue that the notion of legitimacy is a good deal more complicated than the Enlightenment model, taken on its own, suggests.[21]

The authority of a political system in reality rests on multiple threads of recognition and acceptance that lead citizens to willingly obey the agents of the state. Among them, I would identify four that can be understood

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[20] Pierre Trudeau had achieved a decisive victory in the 1980 federal election, with the Liberal Party winning 74 of the 75 seats in the province. Seventy-one of the 75 members of Parliament elected from Quebec supported patriation. It is also true that the proposed amendments had clearly attracted sufficient provincial support to meet the criterion set out by the Supreme Court in its reference opinion; the support of nine provinces out of ten more than addressed the Court's view that "a substantial degree" of provincial consent was needed to take a legitimate proposal to London. One can make a vigorous case, and Prime Minister Trudeau did exactly that, that there is no spot or blemish on the patriation process. For reasons outlined in the chapter, this does not seem to me to be persuasive.

[21] *The Stanford Encyclopedia of Philosophy* contains a thorough discussion of the rich array of meanings associated with the notion of political legitimacy under the heading by that name. http://plato.stanford.edu/entries/legitimacy/.

to play a role in the Canadian case. First, there is what I have called social-contract legitimacy, which is the formal, consent-based, system-level recognition of authority that I have discussed above. Then there are what might be termed "quotidian" legitimacy, traditional legitimacy, and output legitimacy. Each of these, I would argue, plays a role in the support of the authority of the Canadian state, and although they tend to hang together, the absence of one does not mean the absence of all the others, nor are they experienced by the members of a political community in exactly the same way.

Quotidian legitimacy refers to the acceptance of the system of rules and regulations within which one lives – not the coercive submission to the will of a sovereign, but the recognition that the rules are generally appropriate and that obedience to them is generally rational. The patriation of the Constitution was regarded as illegitimate by many Québécois. Yet, once patriated, its authority was accepted; that is to say, its provisions, and the judicial process for interpreting the provisions, were recognized by Quebecers to be binding on them as they are on other Canadians. Beneath the Constitution, as well, the panoply of legislation, regulations, and policies continued to be accepted by the citizens of Quebec, as they were before the patriation of the Constitution. This practical, day-to-day form of acquiescence to the civil order is similar to the form of legitimacy associated with the acceptance of the rationality of the rule of law in Max Weber's work (Weber 1946).[22]

Traditional legitimacy refers to the acceptance that often comes with long-established custom and practice.[23] The experience of what is familiar can grow over time into an acceptance of what is appropriate. Québécois have lived within the Canadian regime for almost 150 years, and in close association with British North Americans for generations before that. Even practices you might not in the abstract independently select for yourself can become habit-forming if engaged in long enough, at which point the natural human affection for what is familiar competes with the value you would place on the activity if you subjected it to rational consideration. I suspect the loyalty that even a sovereignist feels toward Canada is in part a product of this historical experience.

Finally, there is what we might call output or performance legitimacy. An entity that consistently delivers the goods is often granted a form

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[22] See also Weber's ([1947]1964) *Theory of Social and Economic Organization*. In "Politics as a Vocation," Weber (n.d.) speaks of one form of legitimacy as "domination by virtue of 'legality,' by virtue of the belief in the validity of legal statute and functional 'competence' based on rationally created *rules*" (2).

[23] Weber's (n.d.) second type of legitimacy is traditional: "the authority of the 'eternal yesterday,' i.e. of the mores sanctified through the unimaginably ancient recognition and habitual orientation to conform" (2). Weber's third type, charismatic, we do not discuss here.

of recognition by the recipients of these benefits that goes beyond the limited acknowledgement of the specific goods received. The European Union is thought to have derived much of its acceptance among European peoples from their perception that it brought them concrete benefits – peace and prosperity. So successful has the European association been that the EU and its predecessor organizations have made the notion of war among the peoples of Europe virtually unthinkable. What is more, until recently, the growing strength of the European economic union appeared to bring remarkable material benefits to all its members. With the recent euro crisis, the calculus of material benefits and burdens for many Europeans has shifted; you will find, for example, few Greeks applauding the virtues of the EU and the European idea, and the number of Euroskeptics across the EU has considerably increased. It is apparent that output legitimacy on its own is insufficient as the basis of a political order; when the benefits turn into burdens, there need to be other rational supports for the political system. But part of the loyalty Canadians feel for their country clearly arises out of its success. Canada has provided to Québécois and other Canadians material bounty, political freedom, and a high degree of security. The enjoyment of these gifts over generations secures popular recognition, and is a buttress to the other forms of political legitimacy on which the state relies.

This brief discussion of the complex webs of sentiment and recognition that contribute to the landscape of political legitimacy places the breach of 1982 in a different light. Legitimacy does not involve one narrow answer to one narrow question – namely, was the Constitution patriated without the consent of the people of Quebec? – but a broadly grounded assessment of both the benefits and the values associated with membership in the Canadian civil order. For most Canadians, that assessment is highly favourable. For Quebecers, the assessment is more mixed, but I suspect it is favourable nonetheless. The breach is real, and unresolved; the social contract was fractured by the experience of 1982. Yet when one brings the other forms of legitimacy into the equation – quotidian, traditional, and output legitimacy – it seems clear that on balance most Quebecers find membership in the Canadian federation, broadly speaking, a just and beneficial experience, worthy of their recognition and acceptance. That this is so can perhaps be seen in the gradual subsidence of sovereignty sentiment and the continued affection so many Québécois express for Canada. That this is so can perhaps be seen as well in the hundreds of Québécois soldiers who have fought in Afghanistan and served their country elsewhere in the world.

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CHALLENGING CONTEMPORARY INTERPRETATIONS OF SECTION 94

Kathy L. Brock

> "If the apparent logical construction of its language leads to results which it is impossible to believe that those who framed or those who passed the statute contemplated, and from which one's own judgment recoils, there is, in my opinion, good reason for believing that the construction which leads to such results cannot be the true construction of the statute."
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> – Lord Coleridge as quoted in F.R. Scott (1977)

Thinking outside the box, in one of its renditions, means challenging accepted wisdom. This chapter accomplishes that task by questioning current interpretations of section 94 of the Constitution Act, 1867. This formerly obscure and ignored constitutional provision has gained much attention in the past ten years in the writings of Thomas Courchene, Guy Laforest, and practitioner researcher Marc-Antoine Adam, among others, and in the speeches of prominent Quebec politicians. The wisdom that is quickly becoming accepted is that section 94 may provide a solid legal and constitutional foundation for contemporary Quebec's claims to special status and treatment within the federation (Adam 2007, 2009; Courchene 2006, 2012; Laforest 2005; Pelletier 2005a, 2005b). In short, these commentators argue that section 94 is an effective bulwark against federal intrusions into Quebec's jurisdiction because it establishes a clear basis for that province's entitlement to different treatment from the other

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

provinces, particularly with respect to the federal spending power. Their intention in making these arguments is to soothe the tensions that have developed over Quebec's place within the federation.

These arguments are well intended. However, those and allied interpretations of section 94 may be construing this section to make it fit ends for which it is not suited and that may well fuel the very fires of national disintegration they seek to quell. While there is a certain compelling quality to the section 94 justifications for the special status of Quebec in Canada, these arguments are based on contested histories and interpretations of the Constitution. A return to the discussions of the section in 1867 reveals that instead of underscoring the uniqueness of Quebec and justifying its different treatment from the other provinces, section 94 may be a clever means of securing the same protections for all provinces against federal intrusion into their jurisdictions that Quebec was guaranteed through its exclusion from the clause. The intentions of the founders need to inform its use today to avert the same danger of factionalism that the founders, along with many current writers, wished to avoid.[1]

In *Forever Amber*, Thomas Courchene (1990) laments that after the constitutional escapades of the 1980s, "it is unlikely that we shall be so lucky as to have the constitutional lights ever again flash green.… Our best hope is to keep our wits about us, to focus beyond the intersection and, when the time is ripe, to 'run the amber'" (20). I suspect that the current uses of section 94 may indeed be a case of these commentators "running the amber." My caution to them is that when using sections of the Constitution to justify provincial political stances, commentators should observe the amber rather than running the risk of being "broadsided" by unforeseen perils. Instead of running the amber, we need to bide our time waiting for the green light on constitutional reform by acknowledging Quebec's difference within the federation. This can be achieved through a return to principled federalism – adhering to the common-law principles of recognizing difference within the federation and ensuring federal government non-interference in provincial areas of jurisdiction except by agreement and invitation. The benefits of a principled approach will accrue to the entire federation.

To demonstrate the problems with the current interpretations of section 94, this argument proceeds in four steps. To begin, section 94 is unveiled and briefly discussed. The second section presents current interpretations of section 94 offered by Thomas Courchene, Marc-Antoine Adam, Guy Laforest, and Samuel LaSelva, among others, and explains their

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[1] This not an argument for an original intent approach but an acknowledgement of the importance of the original debates in understanding the Constitution as it has evolved.

limitations. In the third section, the original understanding of section 94 is explored in order to inform current uses of the section. The chapter concludes with a caution about the use of section 94 and suggests that comity within the nation and the well-being of the federation may be better served by a return to a posture of principled federalism rather than a reliance on arguments and actions that serve current needs but do not provide a strong foundation for future decisions. Contrary to current fashion, heeding the principles of Mowat rather than resorting to the pragmatism of Macdonald may best light the way forward for both Canada and Quebec.

SECTION 94 UNVEILED

Section 94 is found in Part VI of the Constitution Act, 1867, which is titled "Distribution of Powers." Although the earlier draft of the constitutional resolutions adopted at Quebec City in 1864 included the section in the list of federal powers, it was moved to be a stand-alone provision by 1867. Thus, the section follows the enumeration of federal and provincial powers contained in sections 91 and 92 of Part VI and the guidelines governing the allocation of legislative power over education to the provinces in section 93. Section 95, which completes this part of the Constitution, defines agriculture and immigration as concurrent powers with federal paramountcy.

Section 94 provides that:

> Notwithstanding anything in this Act, the Parliament of Canada may make Provision for the Uniformity of all or any of the Laws relative to Property and Civil Rights in Ontario, Nova Scotia and New Brunswick, and of the Procedure of all or any of the Courts in Those Three Provinces, and from and after the passing of any Act in that Behalf the Power of the Parliament of Canada to make Laws in relation to any Matter comprised in any such Act shall, notwithstanding anything in this Act, be *unrestricted*; but any Act of the Parliament of Canada making Provision for such Uniformity *shall not have effect in any Province unless and until it is adopted and enacted as Law by the Legislature thereof.* (emphasis mine)

This section is entitled "Uniformity of Laws in Ontario, Nova Scotia and New Brunswick." Some argue that it is because of this lacklustre title that section 94 was an infrequently studied and underused section of the Constitution Act, 1867 until recently.[2] The two major studies of it

[2] Tom Courchene agrees with Samuel LaSelva that the section has been largely ignored because of this title and that it should be retitled "Transferring Constitutional Jurisdiction" (Courchene 2012, 99; LaSelva 1995, 50, cf. 1983).

previously were offered by leading constitutional authorities, F.R. Scott (1942, reprinted 1977) and the Honorable Justice Gerard La Forest (1975). The only two attempts to invoke section 94 failed in 1869 and 1902.

There are six significant features of this section for our purposes. First, section 94 provides for the Parliament of Canada to make laws in relation to *property and civil rights* and to *court procedures* for the three original common-law provinces. Second, this power is *subject to the consent of the provincial legislatures* as indicated by the requirement that the provincial legislatures must enact the legislation before it is effective within their jurisdiction. Third, once Parliament has passed an Act acknowledging its power to provide for uniform legislation in this area and once the provincial legislature(s) have "adopted and enacted" it, then that power of the federal parliament is *unfettered or absolute* as implied by the word "unrestricted." Fourth, Scott, La Forest and others generally agree that *Quebec is excluded* from this section by virtue of its civil law tradition and would require a constitutional amendment to effect the same change of jurisdiction (Scott 1977, 114; La Forest 1975, 132; Reesor 1992, 249-50). Fifth, despite some textual confusion identified by Scott, his argument has also been generally accepted that the section now *applies to all of the common-law provinces* (Scott 1977, 119-22). This view is buttressed by the fact that the version contained in the 1864 resolutions included Prince Edward Island and Newfoundland when they were still intending to join Confederation. Finally, the section has fallen into disuse. These six attributes will be discussed in the sections that follow.

CURRENT INTERPRETATIONS OF SECTION 94

Four key arguments have been made recently to demonstrate that section 94 justifies the special status and treatment of Quebec in the federation. The first is that by excluding Quebec from its ambit, section 94 provides a legal and constitutional basis for the asymmetrical treatment of Quebec by the federal government in comparison with the other provinces. In this argument, asymmetry is understood as an entitlement to special status and rights. The second argument is that section 94 is representative of the centralizing view of the Constitution held by the founding fathers and illustrates that the other nine provinces are more comfortable with this view than Quebec is. As a result, other provinces would be content to concede powers to the federal government that Quebec would not be comfortable ceding. This argument is also used to make the case that Quebec is not just different but entitled to special status. Given the close linkages between these first two arguments, they will be treated together below. The third argument arises out of the first two but focuses on the federal spending power. According to this line of logic, legislation and the spending power are two sides of the same coin, and since an accepted usurpation of jurisdiction would result in federal spending in the provinces ceding that jurisdiction, then Quebec would be entitled to equivalent compensation. In short, the federal government would be expected to underwrite the costs of Quebec's uniqueness. Finally, the argument is ventured that the exclusion of Quebec from section 94 implies that it has a constitutional veto over any similar transfer of jurisdiction from the province to the federal government. The latter two arguments will be treated separately below.

Asymmetry, entitlement, and centralization

Section 94 has received a surprising amount of attention as an express justification of asymmetrical federalism applied in the case of Quebec only.[3] Constitutional scholar Guy Laforest argues that the division of powers in the Constitution "did not offer Quebec any distinct, asymmetric" status from the other provinces. Instead, a "strong, unmistakable historical and legal foundation" for such a principle of Quebec-based asymmetry is found in section 94 (Laforest 2005, 3). Benoit Pelletier, former Quebec minister responsible for Canadian Intergovernmental Affairs under the Charest Liberal government, unpacks the logic implicit in this argument. First, section 94 clearly establishes a legal and constitutional foundation for Quebec-based asymmetrical federalism in the founding vision of Canada:

> Section 94 is eloquent proof that there exist in Canada constitutional rules that allow asymmetrical federalism. It enables us to demonstrate that asymmetrical results are in conformity with the vision of the "Fathers of Confederation," and that we must stop viewing an asymmetry that allows Quebec to have a distinctive system as a threat to federalism. This is clearly an eventuality that was contemplated at the very time Canada was created.…
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> The asymmetrical approach provided for in section 94 offers the advantage of being part of a legal process, not an intergovernmental practice. Thus, this section allows the formal setting down of asymmetry in law, while ensuring respect for the Constitution. (Pelletier 2005a, 5-6)

The basis for asymmetry, then, is not a political one but a more permanent and structured legal one.

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[3] In most cases, the potential of section 94 as a basis for asymmetry is acknowledged but not developed in a sustained way (Courchene 2007, 17; Milne 2005, 3, 5; Royal Society of Canada 2005, 7-8; Smith 2005, 2).

Second, just as Laforest specified, asymmetry did not apply to all the provinces equally. Instead, section 94 created the basis for Quebec to be treated as unique with a special status: "What is particularly interesting with section 94, is that it allows Quebec to fully exercise its autonomy in the area of property and civil rights, while at the same time enabling the common-law provinces that so desire to benefit from federal intervention" in any or all areas where they deem it expedient (Pelletier 2005b, 8). Section 94 "forces us to stop perceiving asymmetry as an obstacle to a healthy federalism especially when it allows Quebec to do things differently" (Pelletier 2005b, 7). In sum, Quebec, then, is not just different legally, it also has a constitutional right to absolute autonomy with respect to property and civil rights. According to this construction, Quebec acquires a special constitutional status, neither accorded to nor necessarily desired by the other provinces, and one that is not a threat to Confederation but consistent with its foundational principles.

The arguments for Quebec-based asymmetry are closely allied to what Laforest identifies as the "hegemonic" interpretation of section 94 in English-Canadian historiography, namely, Frank Scott's view that section 94 is a centralizing provision inserted into the Constitution by Sir John A. Macdonald and others who preferred a unitary (legislative) state to a federal one. According to Scott,

> Had the hopes of the fathers of Confederation been carried out, Canada would have moved steadily toward a greater union by this means, and most of the difficulties with the constitution we have since experienced would never have arisen. When section 94 is thought of in relation to the basic principle for the division of powers, namely that matters of "common interest to the whole country" would belong to the "General Government" and that the "Local Governments" would have merely "the control of local matters in their respective sections," the full weight of the desire for national unity that underlay the constitution can be appreciated. (Scott 1977, 115; cf. Milne 2005)

Section 94 was to be the means toward the melting of the federation into one legislative union, in this view. Quebec was excluded from this section by virtue of its civil law tradition and could only join the other provinces in such an act of full legislative union by means of a formal constitutional amendment (Scott 1977, 122). This view is updated by Marc-Antoine Adam (2007, 33), who agrees with Scott that the "original purpose behind section 94 is quite obvious: the framers of Confederation foresaw that despite the distribution of powers they agreed upon, there would eventually be a desire for further integration among the common law provinces." Adam adds that the founders "also foresaw that this would not work well in Quebec given its specificity. Nearly 140 years later, we can only be impressed at how their predictions proved accurate" (ibid.).[4] Or did they?

Section 94 may give rise to an entirely different interpretation than these ones leading to asymmetrical arrangements for Quebec and centralization among the common-law provinces. When the clause is viewed from the exclusive perspective of Quebec or through the eyes of centralizers, then the above interpretations seem convincing. However, these views only take into account that the section provides for Ottawa to enact uniform laws for the common-law provinces and that Quebec is excluded from the section – that is, only three of the six attributes of the section identified earlier in this chapter. A different interpretation emerges when the clause is read from a provincial perspective and when the three other features of section 94 are considered: namely, that provincial consent is required before a federal law can take effect; that the federal power, if enacted and adopted, would be unrestricted; and that the section has never been used. Although the section has been seen as a centralizing feature of the Constitution embodying Sir John A. Macdonald's vision of Canada as more appropriately a legislative union, when these three features are considered, section 94 may in fact be a stronger expression of the vision of provincial autonomy embraced by founders like Sir Oliver Mowat.[5]

Any legislation enacted by Parliament for the uniformity of laws with respect to property and civil rights in the provinces is subject to explicit provincial consent as deemed by section 94. This condition may well be the reply of the decentralizing founders of Confederation to the centralizers. A textual analysis of section 94 leads to the conclusion that the provincial consent clause is the equivalent of the federal power of disallowance over the provinces. That is, provinces may nullify any federal law made explicitly under section 94 relating to property and civil rights and court procedures simply by not adopting it – in effect disallowing it by not consenting, just as the Crown may decide not to sign into effect a provincial bill under the powers of reservation and disallowance.[6] The centralist reply to this assertion of provincial autonomy might be that a law that is in the interests of the people will incite such demands that a provincial legislature may not be able to resist adopting it, even in Quebec.

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[4] Pelletier (2005a) states it this way: "The origins of the Canadian federation, the developments of the 20th century, and the contemporary debates, all show that asymmetry has been predominantly associated with Quebec," and many Canadians and provincial governments outside of Quebec do not mind federal intrusion into provincial jurisdiction (6-7).

[5] Robert Vipond (1991) offers a compelling understanding of the division of powers from the provincialist perspective of local control over local affairs, which has influenced my reading of the Constitution.

[6] Federal laws infringing upon property and civil rights and court procedures are generally challenged in the courts, of course.

However, the provincial rejoinder is that the clause provides the provinces with immunity from unilateral federal action in the specified areas. If a province is forced to consent to a federal proposal at the behest of its population (also known as democratic responsiveness), it may negotiate the terms of that application particularly if it allies with the other provinces in demanding better terms. Section 94 empowers and sustains the provinces by ensuring that the provincial heading of property and civil rights may not be overridden by the sweeping powers, including the power to legislate for the Peace, Order and Good Government of Canada, allocated to the federal government. The stipulation of provincial consent means that section 94 is not a sign of the compliance of the common-law provinces with the federal government or their desire for uniformity but rather an affirmation of their ability to stave off unwanted federal intrusions in provincial jurisdiction. At the very minimum, consent constitutes recognition of their status as equal to the federal government (LaSelva 1995, 53). In the words of founding father T.H. Haviland to the Prince Edward Island House of Assembly in 1866, with the use of section 94 "the general government would, undoubtedly, and of necessity, exercise supervision of the individual states; but the power of the federal government to interfere with the exclusively internal affairs of any of the confederated provinces would be of the most limited and inconsiderable character" (quoted in Ajzenstat et al. 2003, 325).

The force of this perspective on section 94 is underscored by the assertion that once a province had adopted a federal law under section 94, the federal power in that conceded jurisdiction would be unrestricted. Unrestricted is the equivalent of absolute, according to legal definitions. Federal laws would be paramount over any provincial laws that conflicted with them. The federal government's opinion of what was in the best interests of a province's people would trump the provincial government's understanding of that interest insofar as it pertained to the conceded area of jurisdiction. The absurdity of a province agreeing to these terms was best captured in the 1902 attempt to invoke section 94: The federal Minister of Justice sarcastically suggested in reply to the motion to apply section 94 that it would be practical "to ask the local legislature how soon they are going to be disposed to commit suicide" (quoted in Scott 1977, 116). He believed its usage would destroy the federal nature of the Constitution. The most damning evidence of this view of section 94 lies in the fact that no further attempts to invoke it have been made since 1869 and 1902, and those attempts were both quickly aborted.

There is a corollary to this "provincialist" argument that impacts directly on current attempts to use section 94 as a constitutional and legal justification for Quebec's distinct place and asymmetrical treatment within Confederation. By its exclusion of Quebec, section 94 is said to affirm Quebec's status as unique. As noted above, Guy Laforest argues that the allocation of control over property and civil rights to all of the provinces places Quebec and the other provinces on equal footing: Quebec may be different in having a civil law tradition but so may the other provinces sustain or develop different traditions pertaining to property and civil rights. To argue that Quebec is unique, Laforest, Pelletier, and Adam need section 94 to demonstrate that Quebec has a unique power and status based in the Constitution. However, silence is not a positive grant of power to the unnamed jurisdiction in constitutional interpretation. More convincingly though, section 94 may be interpreted as not only empowering the provinces to stave off federal encroachments but also giving each province the same power as Quebec to protect its jurisdiction over property and civil rights from federal encroachment. By virtue of the inclusion of section 94, no federal laws affecting property and civil rights and court procedures may apply to a province without its consent. Thus, all provinces have the same ability as Quebec does to protect themselves from federal interference: the power to say no. Section 94 thus reinforces the vision of provincial equality embraced in section 92.13 in granting all provinces control over property and civil rights rather than offering a contrast to the position of Quebec as argued by the three commentators. Indeed, the power of section 94 might rest in its logical consistency with a vision of asymmetry that recognizes differences across all provinces equally rather than Quebec's uniqueness.[7] This is perhaps the most damaging argument to the current Quebec claim that section 94 provides a legal and constitutional basis for Quebec-based asymmetry and the right to do things differently.

Before leaving the arguments on centralization and Quebec-based asymmetry, a further consideration must be raised. Has section 94 been invoked through other means and without express acknowledgement? The leading argument is one offered by Tom Courchene that the process leading to the creation of the Canada Pension Plan and the Quebec Pension Plan (CPP/QPP) is "quite similar" to the section 94 process. He argues that "although not framed in terms of section 94, this is exactly what happened with the CPP/QPP" (Courchene 2012, 92). There are four flaws in drawing this parallel to section 94 to make the case for Quebec's uniqueness. First, the formal constitutional transfer of jurisdiction over pensions applied to all provinces (section 94A), not just the common-law provinces. Second, federal paramountcy embedded in section 94 was eschewed in favour of provincial paramountcy with respect to CPP/QPP. Thus Quebec, in creating its own pension plan, was exercising a power given equally to all of the provinces, not exercising one unique to that

[7] Alternatively, Jennifer Smith (2005) argues in passing that Quebec may have even less capability than the other provinces to protect its jurisdiction over property and civil rights since it is not given a veto in section 94 (2).

province. Third, during the process that led to the creation of the CPP/QPP, the federal government made it clear that

- it would not proceed with the original amendment without Quebec's consent,
- it would only permit "opting out" for provinces with "a comparable plan,"
- Quebec would need to modify its plan to meet federal conditions to ensure portability across jurisdictions, and
- Quebec needed to add its consent to the provincial agreement to further transfer constitutional jurisdiction over pensions for survivors and persons disabled before retirement to the federal government.

The terms on which Quebec opted out were conditional and offered equally to the other provinces, reinforcing its similarity to the other provinces not its difference (Hogg 1992, 148). Fourth, the arrangements involved only "a transfer of administrative responsibility," not the "freedom to divert resources" consistent with real autonomy (ibid.). Asymmetry in the CPP/QPP case stems from Quebec having the right to create its own plan – a right that all the other provinces had extended to them – not recognition of that province's special status. It is the asymmetry equated with provincial equality and difference that Laforest, Pelletier, and Adam dismiss as inadequate. For these reasons, CPP/QPP is de facto recognition of an asymmetrical arrangement applied to Quebec but not a parallel to section 94.

Section 94 and the spending power

The third argument made regarding section 94 and its bestowal of special status on Quebec relates to the federal spending power. Adam uses section 94 to justify limiting federal use of the spending power and to argue for fair compensation to Quebec in the broad area of property and civil rights including, most significantly, social programs. He suggests that the view of the federal spending power as unlimited is legally questionable, dated, and potentially unsettling for the federation (2007, 181-82, 186-91; 2009, 299-304; 2012, 265-76). As an alternative, he suggests that a contemporary reading of section 94 would imply that just as the federal government's ability to legislate in provincial jurisdiction is limited by provincial consent, so too is its spending power. Courchene and Adam agree that section 94 is consistent with the underlying dynamics of Canada's social union, including the 2004 Health Accord and current proposals for a national pharmacare program. Provincial consent and compensation are building blocks of the social union (Adam 2007; 2009, 196-200; 2012, 286-91; Courchene 2006, 49). Provinces opting out of any federal interventions in matters relating to property and civil rights should be entitled to federal compensation. A refusal of compensation would be tantamount to an unbridled and coercive federal spending power and would militate against the spirit of the social union and the guarantee contained in section 36(2) of the Constitution Act, 1982 by creating more fiscal inequalities among the provinces (Adam 2012, 289-90). Adam (2012, 280) suggests that Quebec could be included in any arrangements contemplated under section 94 for social programs through administrative interdelegation or incorporation by reference. The key difference is that these programs would fall under Quebec legislation analogous to the federal legislation, not the federal legislation itself as in the other provinces.

This is indeed a creative and innovative reading of section 94. The benefits, as Courchene and Adam argue, would be innovative, funded social programming in the provinces and an easing of tensions in the federation. But the difficulty is threefold. Section 94 is not about compensation; it is about legislation. To bend the section to make it fit Adam's purpose is to render the section so open to interpretation as to be meaningless – a danger to be avoided, as the opening quotation by Lord Coleridge chides us. The better argument for compensation for social programs lies within the provincial equalization guarantee provided in section 36(2) of the Constitution Act, 1982. Second, it is only by a convoluted contrivance that Adam can extend the application of the section to Quebec. Like Courchene's (2012) argument regarding CPP/QPP, Adam's argument fits only if the facts (no mention of compensation) and the terms (exclusion of Quebec) of section 94 are disregarded. Third, Adam's argument suggests that Quebec is unique and should fall outside section 94 with respect to any forfeiture of jurisdiction but still be considered equal to the other provinces and thus entitled to any federal spending that they receive by forfeiture of their jurisdiction. The argument is too clever by half: legislative and constitutional asymmetry with symmetrical benefits. Surely a preferable answer may be found within intergovernmental arrangements that accommodate provincial difference as contemplated in the Calgary Declaration and realized in the Health Accord or even in the principled application of subsidiarity.[8] In each of these arrangements, provincial difference is recognized equally for all provinces. After all, even Adam (2012, 294) concedes that his scheme for section 94 might not withstand judicial scrutiny.

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[8] For more persuasive, alternative asymmetrical arrangements in the 2005 IIGR working papers, see Brock (2005), Gibbins (2005), and Gibson (2005); cf. Brock (2008).

Section 94 as constitutional amendment and a Quebec veto

The fourth and final argument regarding section 94 and the special status of Quebec pertains to the question of whether this section implies a constitutional veto for Quebec. This question has arisen because of the use of the word "unrestricted" to describe the federal power that would result from the provincial adoption of a federal law created to ensure uniformity in any or all areas of property and civil rights. Frank Scott, following the analysis in the seminal Rowell-Sirois Report, pronounces that

> From the moment the provincial law becomes effective, the subject matter of the act passes out of the provincial and into the Dominion sphere as finally as if it had actually been written into section 91 as a specified Dominion head. Thus the province abandons the field to the Dominion, and loses even the right to change its mind subsequently so as to reclaim the power transferred. (1977, 114)

In effect, section 94 constitutes an amendment to the division of powers in the Constitution. But this reading then poses a serious question not answered by Scott: Why is Quebec excluded?

The answer is provided by Samuel LaSelva (1995). He explains that because section 94 is a means of changing the division of powers without using a formal amending procedure, it follows logically that the section 94 process must be less stringent than the amending process (57). This assumption is justified because if it were not true, then section 94 would be "superfluous." It is further justified because if the section 94 process was more stringent, then its reforms could be undone by a less stringent process of amendment, which does not make sense in terms of protecting rights (ibid.). Finally, he argues that the condition of a more stringent amending formula is not met by the simple requirement of enactment by the British Parliament because that would imply that section 94 is equal in weight to the provision for housekeeping amendments contained in section 91.1 of the Constitution Act, 1967, and certainly the subject matter of section 94 is more important (57-8). The only logical explanation, he argues, is that Quebec is excluded from section 94 to make it easier to change the division of powers using that section than a formal amendment. If it is accepted that Quebec is likely to be the obstacle and would use its veto to oppose amendments to the division of powers that attenuate its powers, then section 94 provides a means of getting around Quebec's veto (LaSelva 1995, 59; cf. LaSelva 1983, 767). In sum, Quebec would have a veto over, or at least its consent would be a requirement for, any formal constitutional amendments to property and civil rights, broadly construed meaning the division of powers. Thus, section 94 is a means of getting around the probability that any amendments to the division of powers would be nigh impossible given Quebec's interest in protecting its jurisdiction over property and civil rights (LaSelva 1995, 80; 1983, 768). LaSelva concludes his argument with a trenchant criticism of the Supreme Court's failure to recognize a Quebec veto over constitutional amendments to the division of powers by not considering the structural logic of section 94.

The LaSelva argument is powerful and consistent with similar arguments made by the Tremblay commission, Guy Laforest, and Alain-G. Gagnon among others. However, such an interpretation of section 94 rests on the fundamental assumption that a section 94 transfer of jurisdiction is permanent and cannot be revoked. Former Supreme Court justice the Honourable Gerard La Forest (1975, 132) suggests that while this is a possibility, the term "unrestricted" does not exclude the retransfer of power back to the provinces. In response to the 1951 Supreme Court decision on the interdelegation of powers,[9] La Forest asserts that

> The federal Parliament or a legislature does not lose its exclusive control by delegating for it retains its power of revocation. No express power is required to authorize delegation because Parliament and the legislatures are sovereign, and that this is not inimical to the structure of the constitution is evident from section 94. (1975, 136)

Parliament and the legislatures retain the right to make or unmake any law within their jurisdiction (cf. Hogg 1992, 302-3). Unless section 94 expressly stipulated that such a transfer was irrevocable as it did in earlier versions, then the provincial legislature would retain the right to reconsider the transfer and to revoke it, thus transferring the power back, however difficult that may be. Therefore, the LaSelva argument falls because section 94 is not a less restrictive means of constitutional amendment but instead remains a legislative act subject to revocation.[10] Thus, LaSelva is precipitous in suggesting that the section is misnamed and should be retitled "Transferring Constitutional Jurisdiction" (1983, 758). The key to the permanence of a constitutional amendment is that the process requires the participation of both sides to make or unmake the amendment. In the case of section 94, a province could change its mind on a previous transfer of jurisdiction, and the federal legislation would no longer apply to that province.[11] The argument for a Quebec

[9] *Attorney General of Nova Scotia v. Attorney General of Canada*, [1951] S.C.R. 31.

[10] Courchene's (1991, 9) argument that section 94 is a constitutional amending procedure fails on these grounds as well. Note that revocation would be difficult once a transfer and practice had been established.

[11] By the same logic, there is confusion over whether or not further provincial legislation would be required to ensure that any federal changes to the designated law took effect in that province.

veto falls by this textual interpretation. The section is correctly named with the daunting title of "Uniformity of Laws in Ontario, Nova Scotia and New Brunswick."

Summary

The four arguments that use section 94 to justify Quebec-based asymmetry and special status, a constitutional veto, and rights for Quebec are on tenuous grounds. This is not to suggest that Quebec is not different from the other provinces or that asymmetry does not operate within the federation. No, it is meant to suggest that a firmer ground for accommodating Quebec's difference and unique needs may lie in the extension of asymmetrical arrangements to all the provinces where their needs require special treatment. Section 94 alone is insufficient.

IS THERE AN ALTERNATIVE EXPLANATION FOR SECTION 94, OR WAS SIR JOHN A. MACDONALD ROOKED?

Why is section 94 in the Constitution? What are its purpose and meaning? Why does it apply to the common-law provinces and not Quebec? Was Sir John A. Macdonald rooked in the Confederation deal? For an alternative answer, this section examines the origins of section 94, considers possibilities for the drafters' intentions, and offers a structural explanation.

Origins

Section 94 is consistent with British common-law justifications for the different treatment of Quebec from the other colonies. Under the common law of colonization, colonies could be acquired by conquest or settlement. If by settlement, then English laws accompanied the settlers. This was the preferred myth of establishment in the colonies with British settlers because it meant that English law, not French or Spanish law, prevailed. If by conquest, then the laws of the conquered peoples continued unless and until they were repugnant to British colonial institutions and laws. Cession was considered a form of conquest, and those rules applied. Hence the settlement myths[12] in Canada: Ontario was settled, Quebec was conquered, and the three Maritime provinces were settled although originally they were ceded to Britain from France (Hogg 1992, 28-29). As practiced, then, common law and its rules applied to Ontario and the three Maritime provinces while civil law held in Quebec. Section 94 is

[12] I use "myths" in the sense of being animating principles or grundnorms of a society, not as being fictions.

founded upon the same division between Quebec and the other three founding provinces.

English law could be applied to a colony in two additional ways under common-law principles. A colony could enact a statute adopting English law at a specified time. Alternatively, royal prerogative allowed the king or imperial Parliament to legislate for a colony. In the case of Quebec, the Royal Proclamation of 1763 imposed English law on Quebec but an imperial statute, the Quebec Act of 1774, terminated the royal power and restored French civil law to Quebec. While section 8 of the Quebec Act affirmed that civil law included property and civil rights, criminal law was left under English law owing to the harshness of French criminal law at the time. When Quebec was divided into Upper and Lower Canada under the Constitutional Act, 1791, French civil law continued in Upper Canada (Ontario) until the first Act of its legislature imported English law (Hogg 1992, 28-29, 34-35). Therefore, this history set the precedent for the parallel with section 94: civil law continues in Quebec undisturbed while the other colonies could receive federal law just as they received English law under the imperial government.

Section 94 reflects not only the division between Quebec and the other colonies established in the pre-Confederation period but also Quebec's fear of the imposition of English laws. Both were captured in the reaction to the Union Act, 1840, which united the two Canadas in accordance with Lord Durham's recommendation to hasten the assimilation of the French. The two systems of common and civil law continued under an assembly with equal representation from the two jurisdictions. Ontario was dissatisfied as its population growth outpaced Quebec's, and Quebec feared its laws would be changed by statute if it were outnumbered in the assembly (Hogg 1992, 35-37). This Act had three effects for our purposes. First, it meant that Ontario's demand for representation by population was met with Quebec's demand for federalism in the creation of a new union. Second, the two separate systems of law featured in the 1840 Act were continued in the Constitution Act, 1867 as an established principle. Third, the 1867 Act in general and section 94 in particular reflected the comfort levels of Ontario and the Maritime provinces but not Quebec with common-law principles.

Quebec's fear of assimilation was captured in the Confederation debates, as Guy Laforest notes in his search for a basis for asymmetrical federalism in the 1864–67 discussions and documents. He argues that the inclusion of property and civil rights and all matters of a local and private nature in the section 92 enumerated heads of provincial jurisdiction gave all provinces the same safeguard for their legal identity and thus did not satisfy his quest. However, the inclusion of section 94 and its precursor, section 29.33 in the Quebec Resolutions, provide a basis for asserting the constitutional difference of Quebec in his view. Moreover, he argues that it demonstrates that Quebec requested such an exclusion.

He quotes M.C. Cameron and Christopher Dunkin speaking in the United Canadian Parliament in 1865 to this end. Cameron asks why section 94 is not applicable to Quebec and notes that he understands the feelings of the French people in not wanting "to have anything forced upon them" but does not understand their refusal to contemplate a change in laws that would operate to their benefit or "general weal" with their consent. Dunkin observes that Quebec cannot consent to a similar change in laws to the other provinces even if the province wishes it, placing that province on a "separate and distinct footing from the other provinces" (quoted in Laforest 2005, 4). Quebec has donned not only belts but braces in order to protect its legal autonomy – the basis and rationale for different treatment within the federation.

Why were property and civil rights singled out for such special treatment in sections 92.13 and 94? The key lies in the definition of property and civil rights. Hogg (1992) explains:

> Subject to the qualifications required by the new federal scheme, it is clear that the framers of the Constitution Act understood the familiar phrase in the same sense as had obtained in 1792 and 1774, that is to say, as a compendious description of the entire body of private law which governs the relationships between subject and subject, as opposed to the law which governs the relationships between the subject and the institutions of government. (538)

The clauses on property and civil rights were comprehensive and posed a serious challenge to the federal power to legislate for the peace, order and good government of Canada, as has been demonstrated in the leading constitutional cases on the division of powers (Russell 2004, 12-52; Russell, Knopff, and Morton 1989). Sections 92.13 and 94 ensured provincial powers could not be gutted by the federal government – without provincial consent.

Was Sir John A. Macdonald rooked?

Was Sir John A. Macdonald rooked in the Confederation debates by allowing sections 92.13 and 94 into the Constitution? No, let's not fall into the trap of "historical arrogance" and assume that the founders did not understand the ramifications of their work. While they could not predict the future, they understood the likely meaning and importance of their chosen words. However, as Samuel LaSelva (1995, 53) observes, commentators like Scott are wrong to assume that the leading intention of the founders was the preference for a legislative state as articulated most prominently by Sir John A. Macdonald. The Constitution Act, 1867 was an artful compromise among the founding fathers with each side betting that their interpretation would gain traction over history.

The two leading sides on the division of powers will be represented for our purposes by the Macdonald/Cartier/Brown alliance and the provincial rights advocates represented by Mowat. Macdonald was a pragmatist and although he preferred a legislative union to federalism, he realized through his allies that the union was contingent upon building in the federal principle, not only for the protection of Quebec but also for the protection of the other provinces. But at the same time, he attempted to tip the balance in favour of centralization. Listen to his words when he repeats part of the only speech he ever revised:

> The only feasible scheme which presented itself to his (my) mind, as a remedy for the evils complained of, was a confederation of all the provinces.… (Hear.) (Hear.) The true principle of a confederation lay in giving to the general government all the principles and powers of sovereignty, and that the subordinate or individual states should have no power but those expressly bestowed upon them. We should thus have a powerful central government, a powerful central legislature, and a decentralized system of minor legislatures for local purposes. (quoted in Ajzenstat et al. 2003, 313-14)

Section 94 fit with this explanation because while he anticipated that one of the first acts of the new Parliament would be to render uniform the laws and court procedures in the provinces, he accepted that "to prevent local interests from being over-ridden, the same section makes provision that, while power is given to the General Legislature to deal with this subject, no change in this respect shall have the force and authority of law in any province until sanctioned by the legislature of that province" (quoted in Waite 1969, 46). In this understanding, section 94 placated provincial worries over encroachment by the federal government, while providing the very tools to ensure the subordination of the provincial governments by Ottawa.

The two principal draftsmen of the Quebec resolutions were Macdonald and Mowat (Ajzenstat et al. 2003, 439; Moore 1997, 121). Mowat was an advocate of provincial rights. While he had to concede wording to Macdonald on the division of powers, he did not concede on the principle of equality of the federal and provincial governments. He later observed that the final draft of the division of powers was "the best practicable in view of the different interests and sentiments of the members of the conference and those they represented" (quoted in Moore 1997, 121). But as observed by Donald Creighton and Christopher Moore, "Mowat was cunning" and considered himself a better lawyer than Macdonald. As Moore (1997) explains, "If the conference was reluctant to oppose directly the idea of a supreme national government, Mowat could try to build in restraining principles that he drew from his legal specialty, the law of the chancery," namely equity (121). Equity, natural justice, and the principle of responsible government underpinning the division of powers were Mowat's replies to Macdonald's supreme legislature. As Moore (1997) explains,

> If there was Machiavellian brilliance in Oliver Mowat's work at Quebec, it lay in perceiving that what had reduced London's Imperial power to ceremonial trappings … would just as effectively undermine the powers Ottawa might one day claim to find in the Quebec resolutions. If the provinces were responsible governments answerable to their own electorates, Ottawa would find itself unable to interfere with them in their allocated spheres, just as London already had. (124)

Later, as Ontario premier, Mowat ensured that the provinces were never subordinated to the federal government and that property and civil rights proved a powerful antidote to peace, order and good government (see Moore 1997, 124-26; cf. Waite 1962, 115-16).[13] The provincial consent clause, combined with the cautionary and potentially scary characterization of the federal power as "unrestricted" in section 94, would suffice that no provincial legislature would "commit suicide" under the clause. Section 94 was one weapon in Mowat's arsenal and proved to be a more powerful stiletto in silencing the clause in perpetuity than Macdonald's blunt instrument of uniformity had been in ensuring the subordination of the provinces. Both men bet on their legal drafting skills and Mowat won the wager, rooking Macdonald in the process.

Another understanding of section 94

Section 94, as we have seen throughout this work, can be understood as having two meanings: it provided for uniformity of laws in the common-law provinces while making that event unlikely. Quebec was excluded as a result of the continuation of the historic recognition of its civil law tradition. If the section is viewed from a fundamental principle of judicial review that constitutions must be read as consistent with themselves, then section 94 could be construed as endorsing provincial equality but also difference. First, the consent clause puts all of the provinces on the same footing as Quebec in protecting their property and civil rights as has been demonstrated above.

[13] Macdonald and Mowat had a bitter rivalry throughout their lives. Moore (1997, 325) speculates that Macdonald sensed how formidable an opponent Mowat was in Quebec and thus offered him a coveted appointment to the Chancery bench in Ontario as a means of taking him out of the constitutional game. When Mowat went to the Chancery, Christopher Dunkin told him that the best chance for something good to come out of the Quebec resolutions went with him (Moore 1997, 151).

Second, from a drafter's perspective, section 94 must be read as consistent with other parts of the Constitution, and this is where the claims to section 94 as a justification for the distinct place of Quebec and its asymmetrical treatment within the federation and the two nation view of Confederation falter, if not fail altogether. If this were an accurate view, then the division of powers applying to all provinces equally would have to be read differently. For example, Senate seats would not have been allocated to give Quebec only one-third in 1867 and still fewer now. The House of Commons might reflect the principle of representation by population but the Quebec members, at minimum, would have been accorded a veto, at least over matters affecting their province. Too many sections of the Constitution, and the Constitution read as a whole, affirm the equality of the provinces, not Quebec's specificity, to provide a legal justification for the claims of Quebec-based asymmetry and the two nation view to succeed. Too many sections apply to one or more but not all provinces, and each province was admitted to Confederation on unique terms. Special arrangements have been accorded Quebec like the Health Accord or the Quebec Pension Plan, but these arrangements are pragmatic in recognizing different needs and circumstances and do not confer special constitutional status on Quebec (Hogg 1992, 102). This logic explains Quebec's desire for an interpretive clause like the distinct society clause in the 1987–90 Meech Lake Accord and the current interest in section 94 – both would facilitate a different reading of the Constitution in a way that endorses Quebec as unique among the others.

Quebec is distinct, yes, but just as each province was distinct in its own way in 1867 and still is today. Each province needs the powers to serve its unique population and protect its distinct culture. Quebec can benefit from the principle of difference and diversity built into the Constitution to serve the unique needs of its population and to continue to foster a distinct society while being watchful of federal encroachments just as other provinces are. Is it necessary to deny the claim of each province to its autonomy and unique character to empower one? Can all be recognized as empowered instead? Certainly this was the vision of Mowat and the provincialists, and their response to Macdonald and the centralizers.

Finally, uniformity of the laws has been consistent with diversity in common law. Conditions have been attached to federal laws that allow them to apply differently in different provinces. Uniformity may be desirable where spillover effects occur in certain policy areas and among jurisdictions (e.g., SARS). Peter Hogg (1992) explains the reconciliation of uniformity with diversity:

> Uniformity is desirable with respect to many topics, and for many reasons, but of course, the distribution of legislative powers in a federal system necessarily involves a substantial subordination of the value of uniformity

> to that of provincial autonomy even where there is no objective necessity for regional variations. In legislative fields which are entrusted to the provinces, it is for the provinces to decide whether or not they desire uniformity: they can achieve it whenever they wish through the enactment of uniform laws. (446)

Uniformity, whether through section 94 or in practice, is subject to provincial consent and variations. Even challenges to the different application of federal laws within the provinces have failed in both pre- and post-Charter times (Hogg 1992, 447, 1194-95). Canada has been built on diversity within unity, a principle that applies to all provinces. This brings us to a concluding consideration of section 94, Quebec, asymmetrical federalism, and principled federalism.

CONCLUSION: PRINCIPLED FEDERALISM RIGHTLY CAST AS MUTUAL RESPECT

Is Quebec unique? Yes, without a shadow of a doubt. Quebec is unique not only in its civil law tradition, its language, and its culture but also in its very identity. Does section 94 provide a legal basis for the recognition of this distinctiveness? No, not necessarily. While it treats Quebec differently by its exclusion from its terms, it simultaneously empowers the other provinces with the same ability to protect their property and civil rights and their systems for the administration of justice from federal intrusion. In so doing, it embraces a version of asymmetry that is more consistent with provincial equality than the Quebec-based asymmetry espoused by Pelletier and Laforest explicitly and Adam implicitly. These are shaky grounds for such a claim at best.

Should section 94 be used to justify difference in Quebec anyway? There is a danger in using section 94 that way, as was so clearly pointed out by the founding fathers. Listen to M.C. Cameron reacting to his reading of section 94 as a basis for Quebec's special status:

> I can easily understand the feeling of the French people and can admire it – that they do not want to have anything forced upon them … But … having feelings of this kind, and manifesting them so strongly as they do in this document, it appears to me that in going into this union we do not go into it with the proper elements. We go into it with elements of strife and dissension, rather than of union and strength. (quoted in Ajzenstat et al. 2003, 306)

Or heed the words of Christopher Dunkin, who immediately follows the excerpt quoted by Laforest above (to justify his argument) with an analysis of the implications of provisions like section 94:

> I say this system, and these peculiarities and exceptions in regard to Lower Canada are adopted with a special view to remedy our Canadian difficulties of race and creed. But sir, this is no way at all of avoiding or lessening trouble from this cause. It is idle to pretend that by this system collision is going to be prevented. Under the legislative union of the Canadas, even worked as it has been, the tendency of minorities in Upper and Lower Canada, respectively, has been towards the maintenance of the union, towards the avoidance of all intemperate language and prejudiced feelings, toward the pulling down of the feuds that before divided them and the respective majorities. And the result has been that while just before the union the feud between the races in Lower Canada was at its highest and bitterest point, it has since then all but disappeared.… Indeed, there has been a more tolerant state of feeling in both camps than in any other community so divided as to race and creed that I know of.

Two implications follow from the new arrangement. First, Dunkin continues, the French Canadians

> will find themselves a minority in the general legislature, and their power in the general government will depend upon their power in their own province and over their provincial delegations in the federal parliament. They will thus be compelled to be practically aggressive to secure and retain that power.

Second, Dunkin observes that

> we have a large class whose national feelings turn towards London, whose very heart is there; another large class whose sympathies centre here at Quebec, or in a sentimental way may have some reference to Paris; another large class whose memories are of the Emerald Isle; and yet another whose comparisons are rather with Washington. But have we any class of people who are attached, or whose feelings are going to be directed with any earnestness, to the city of Ottawa, the centre of the new nationality that is to be created? In the times to come, when men shall begin to feel strongly on those questions that appeal to national preferences, prejudices, and passions, all talk of your new nationality will sound strangely. (quoted in Ajzenstat et al. 2003, 346-48)

By isolating Quebec with sections like 94, the founders ran the danger of encouraging separate loyalties, a lack of accommodation of differences, intolerance, and aggressive provincial stances especially in areas of language and creed just as Dunkin and Cameron warned. Asymmetry applied to justify special status and powers encourages provinces to work in their own interests without regard for the other parts of the union or even the whole. Instead of learning compromise and the spirit of give and take so necessary for comity within the federation, the provinces learn self-interest, self-promotion, intolerance, and resentment.

Is there a valid legal and constitutional basis for treating Quebec differently? Yes, the very inclusion and definition of that province in the Constitution recognizes its need to be treated differently. It is equal to the other provinces in its need for difference. In the case of Quebec, this difference manifests itself in its civil law tradition, culture, language, demographics, racial composition, and more. Policies, statutes, and regulations must all reflect and respect these differences.

Quebec can succeed as a nation within a united Canada without interpreting provisions of the Constitution in a way that might backfire. Quebec can flourish by accepting that acknowledging the differences among the common-law provinces neither diminishes its uniqueness nor threatens its being. The other provinces can thrive by negotiating in good faith with Quebec as they forge common policies but also by allowing for differences among the provinces and continuing to accept opting out/in of common pacts as normal. To enable Quebec and the other provinces to realize their goals and the full benefits of federalism, the federal government will need to adopt a principled approach to its role in the federation by abiding by the common-law principle of nonintervention in provincial areas of jurisdiction except by agreement and invitation. These separate and joint actions will win the hearts of citizens and temper those passions, prejudices, and jealousies that can arise in a federation. Section 94 can return undisturbed to its deep slumber.

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E

INEQUALITY AND THE DISTRIBUTION OF INCOME

INCOME INEQUALITY, EQUALITY OF OPPORTUNITY, AND INTERGENERATIONAL MOBILITY

MILES CORAK

The "American Dream" is a very broad concept with many meanings and certainly broader than any single statistic can measure. However, when the Economic Mobility Project (2009), supported by the Pew Charitable Trust, conducted a nationally representative poll that asked Americans what they understood this phrase to mean, some typical answers included "Being free to say or do what you want," "Being free to accomplish

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almost anything you want with hard work," and "Being able to succeed regardless of the economic circumstances in which you were born." These meanings have historically not only made the American Dream a defining metaphor of the country, they are also likely a reason why Americans have been willing to tolerate a good deal more inequality of outcomes than citizens of many other rich countries. Bénabou and Ok (2001) have called this the "prospect of upward mobility" hypothesis, the idea that those with lower incomes are not strong advocates of redistributive policies because of the belief that they, or in the least their children, are likely to climb the income ladder.

However, an emerging body of evidence suggests that more inequality of incomes in the present is likely to make family background play a stronger role in determining the adult outcomes of young people, with their own hard work playing a commensurately weaker role. The OECD (2011a, 40) has gone so far as to state that rising income inequality "can stifle upward social mobility, making it harder for talented and hardworking people to get the rewards they deserve. Intergenerational earnings mobility is low in countries with high inequality such as Italy, the United Kingdom, and the United States, and much higher in the Nordic countries, where income is distributed more evenly."

This suggestion that higher inequality skews opportunity and lowers intergenerational mobility is the starting point of this chapter. In particular, my focus is on the degree to which increasing inequality in the high-income countries, particularly in the United States, is likely to limit economic mobility for the next generation of young adults.

The chapter offers a descriptive, yet structured, discussion of the underlying drivers of opportunity that generate the relationship between inequality and intergenerational mobility. The goal is to explain why America differs from other countries, how intergenerational mobility will change in an era of higher inequality, and how the process is different for the top 1 percent. To lay the foundation, I begin by presenting the evidence that countries with more inequality at one point in time also experience less earnings mobility across the generations, a relationship that has been called "The Great Gatsby Curve." I also outline how to interpret the common statistic measuring intergenerational earnings mobility and its relationship to the broader concept of equality of opportunity. My overview of the causal factors determining intergenerational mobility is based upon a framework drawn from some influential economic models often used to examine the intergenerational transmission of inequality. This framework focuses attention on the investments made in the human capital of children that influence their adult earnings and socioeconomic status.

The interaction between families, labour markets, and public policies all structure a child's opportunities and determine the extent to which adult earnings are related to family background – but they do so in different ways across national contexts. Both cross-country comparisons and the underlying trends suggest that these drivers are all configured to most likely lower, or at least not raise, the degree of intergenerational earnings mobility for the next generation of Americans coming of age in a more polarized labour market. This trend will likely continue unless there are changes in public policy that promote the human capital of children in a way that offers relatively greater benefits to the relatively disadvantaged. At the same time, the substantial rise in the income shares of the top 1 percent, their access to sources of high-quality human capital investment for their children, and the intergenerational transmission of employers and wealth implies a much higher rate of transmission of economic advantage at the very top, in a way that many will perceive as evidence of inequality in opportunity.

THE GREAT GATSBY CURVE

Countries with greater inequality of incomes also tend to be countries in which a greater fraction of economic advantage and disadvantage is passed on between parents and their children. It is now common to represent this relationship with what Alan Krueger has referred to as "The Great Gatsby Curve."[1] Figure 1 depicts an example.

The figure ranks countries along two dimensions. The horizontal axis shows income inequality in a country as measured by the Gini coefficient from about a generation ago. During the early to mid 1980s, Finland, Sweden, Norway, and Denmark were the most equal; the United Kingdom and the United States, the least. The vertical axis is a measure of intergenerational economic mobility: specifically, the elasticity between paternal earnings and a son's adult earnings, using data on a cohort of children born, roughly speaking, during the early to mid 1960s and measuring adult outcomes in the mid to late 1990s. In countries like Finland, Norway, and Denmark, the tie between parental economic status and the adult earnings of children is weakest: less than one-fifth of any economic advantage or disadvantage that a father may have had in his time is passed on to a son in adulthood. In Italy, the United Kingdom, and the United States, roughly 50 percent of any advantage or disadvantage is passed on.

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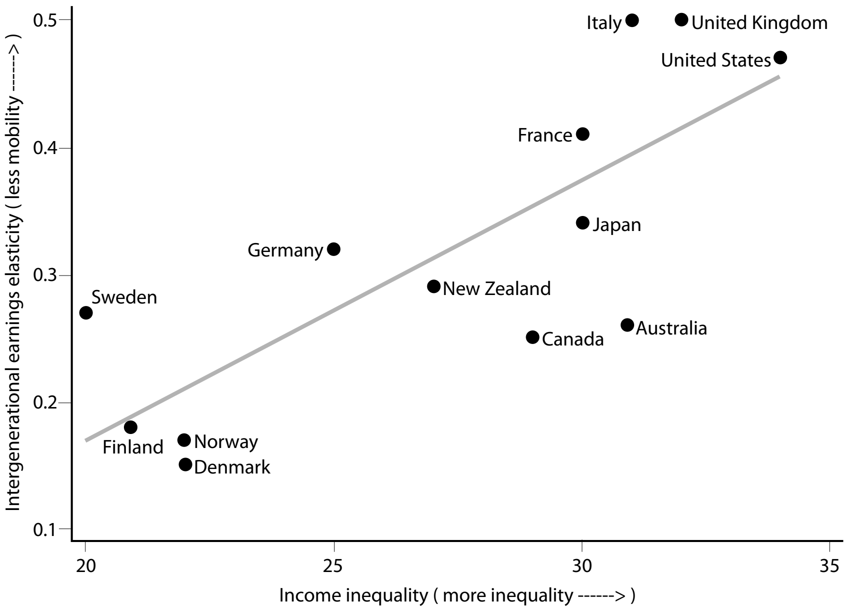
[1] Krueger used this label for the first time in a speech, "The Rise and Consequences of Inequality," to the Center for American Progress on 12 January 2012 in his capacity as the chairman of the Council of Economic Advisors. The curve has been drawn in different varieties by, to the best of my knowledge, Andrews and Leigh (2009), Björklund and Jäntti (2009), Ermisch et al. (2012), Blanden (2013), and myself (Corak 2006, 2013), in addition to appearing in the 2012 *Economic Report of the President* (Council of Economic Advisors 2012). Both Krueger's speech and the president's report stress the relevance of measuring inequality when the children are growing up.

FIGURE 1
The Great Gatsby Curve: More inequality is associated with less mobility across the generations



Notes: Income inequality is measured as the Gini coefficient, using disposable household income for about 1985 as provided by the OECD. Intergenerational economic mobility is measured as the elasticity between paternal earnings and a son's adult earnings, using data on a cohort of children born, roughly speaking, during the early to mid 1960s and measuring their adult outcomes in the mid to late 1990s. The estimates of the intergenerational earnings elasticity are derived from published studies, adjusted for methodological comparability in a way that I describe in the appendix to Corak (2006), updated with a more recent literature review reported in Corak (2013), where I also offer estimates for a total of 22 countries. I only use estimates derived from data that are nationally representative of the population and that are rich enough to make comparisons across generations within the same family. In addition, I only use studies that correct for the type of measurement errors described by Atkinson, Maynard, and Trinder (1983), Solon (1992), and Zimmerman (1992), which means deriving permanent earnings by either averaging annual data over several years or by using instrumental variables.

Sources: Corak (2013) and OECD.

The intergenerational earnings elasticity is derived from a regression-to-the-mean model, usually as the least squares estimate of the coefficient β in the following equation:

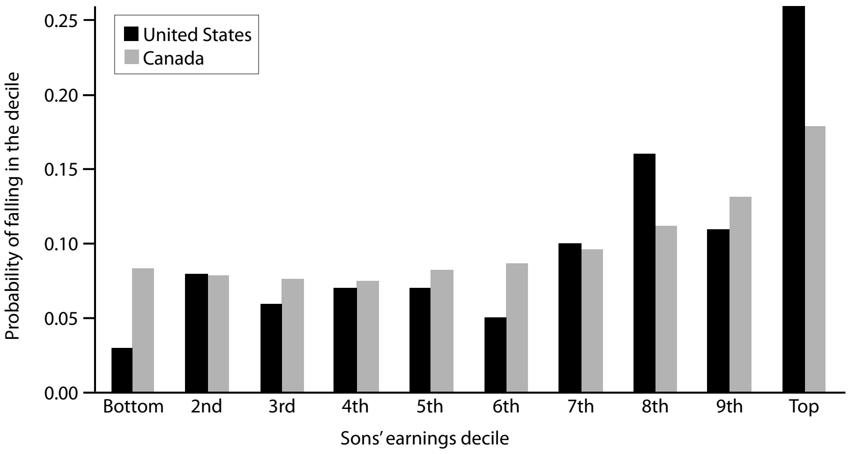
$$lnY_{i,t} = \alpha + \beta \ln Y_{i,t-1} + \varepsilon_{i,t},$$

with Y representing "permanent earnings" for individuals from a particular family indexed by i, across two generations, t and t-1. In much of the literature, Y refers to the earnings of fathers and sons to avoid the more complicated analyses needed to address the changing role of women in the labour force. It is not that studies of mothers, daughters, and the marriage market do not exist, only that father-son analyses are more common and permit a broader set of cross-country comparisons. In this equation, ε represents all other influences on the child's adult earnings not correlated with parental income. The constant term α captures the trend in average incomes across generations, due, for example, to changes in productivity, international trade, technology, or labour market institutions. The coefficient β indicates the degree to which earnings are "sticky" across generations within the same family, the percentage difference in child earnings for each percentage point difference in parental earnings. The higher the value of β, the more that knowing a parent's place in the earnings distribution will tell us about where we can expect the child's place to be; the lower the value, the less stickiness so that a parent's relative earnings are a weak predictor of the child's rung on the earnings ladder of the next generation. Mulligan (1997) offers a more detailed description of how this model should be interpreted.

Figure 1, showing the relationship between income inequality and intergenerational economic mobility, uses estimates of the intergenerational earnings elasticity derived from published studies that I adjust for differences in methodological approach (see notes to the figure for details). So these estimates are offered, not as the best available estimates for any particular country, but rather as the appropriate estimates for comparisons across countries. (Analyzing a broader group of countries, I find that many of the lower-income countries occupy an even higher place on the Great Gatsby Curve than depicted for the OECD countries in Figure 1, but this is likely due to structural factors not as relevant to a discussion of the high-income countries.)

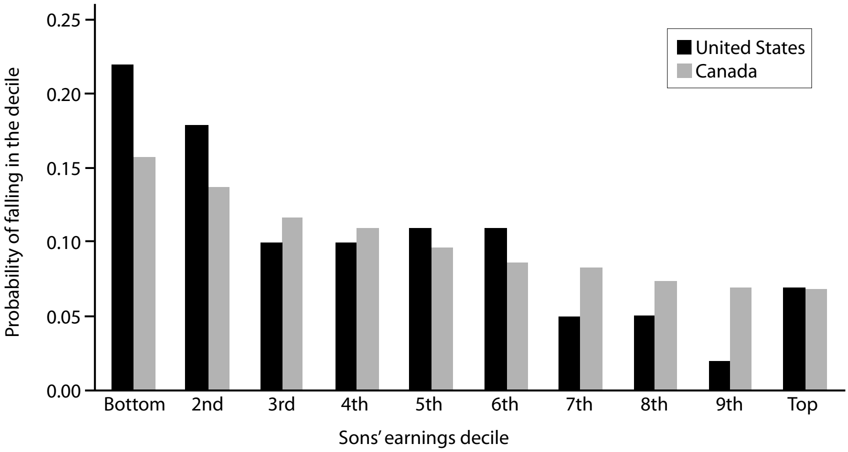
There are certainly many other ways of measuring intergenerational mobility that focus attention upon particular aspects of the process. The intergenerational elasticity, for example, offers an overall average measure of the degree of mobility without saying anything about the direction of change. The cross-country differences illustrated in the Great Gatsby Curve could reflect differences in the degree of upward mobility for those born to low-income fathers, or differences in the stickiness of intergenerational status for those born to top-income parents. Figures 2 and 3 contrast, by way of illustration, mobility in the United States and Canada for sons raised by fathers with incomes in the top 10 percent, and for those raised by fathers in the bottom 10 percent. In Corak (2010), I argue that the comparison of these two countries is particularly apt in part because of similarities in the underlying data used, but also because they share a good many other things in common, an issue to which I return below.

FIGURE 2
Earnings deciles of sons born to top decile fathers: United States and Canada



Sources: Corak and Heisz (1999, Table 6); Mazumder (2005, Table 2.2).

FIGURE 3
Earnings deciles of sons born to bottom decile fathers: United States and Canada



Sources: Corak and Heisz (1999, Table 6); Mazumder (2005, Table 2.2).

It turns out that the American generational earnings elasticity, at about 0.5, is twice as high as the Canadian, and this has little to do with the degree of mobility of children raised by families in broad swaths of the middle part of the distribution. Indeed, a comparison of the full decile transition matrices reveals a good deal of mobility in both countries, to the point that there is little relationship between family background and child outcomes (Corak and Heisz 1999; Mazumder 2005). It is at the extremes of the distribution that the two countries differ, as illustrated in Figures 2 and 3. In the United States, sons raised by top and bottom decile fathers are more likely to occupy the same position as their fathers than they are in Canada. More than half of sons raised by top decile American fathers fall no further than the 8th decile, and about half of those raised by bottom decile fathers rise no further than the third decile. In Canada there is less stickiness at the top, and a much higher proportion of bottom decile sons also rise to the top half of the earnings distribution.

All this said, if one number is to summarize the degree to which inequality is transmitted across the generations, just as sometimes one number, like a Gini coefficient, is used to summarize the degree of inequality at a point in time, then the generational elasticity is an appropriate statistic to use. But this does not mean that it measures "equality of opportunity" or the even more elusive "American Dream." Roemer (2004, 2012) and Jencks and Tach (2006), among others, are clear on this point, emphasizing that in no sense is an intergenerational elasticity of zero an optimum and noting that making an inference about equality of opportunity from the degree of intergenerational earnings mobility requires us to draw a line between differences in *circumstances* – for which individuals should in some sense be compensated – and *personal choices*, for which they should be responsible.

Another branch of the empirical literature seeks to draw this line by deriving indices of equality of opportunity that remove the influence of factors over which individuals have no control: for example, race, mother's and father's schooling, region of birth, and father's occupation (Ferreira and Gignoux 2011; Lefranc, Pistolesi, and Trannoy 2008; Paes de Barros et al. 2009). Brunori, Ferreira, and Peragine (2013) offer a particularly clear overview and find that indices of inequality of opportunity are in fact strongly correlated with indicators of intergenerational mobility, be it in earnings or in education. It is in this sense that the Great Gatsby Curve can be understood to be signalling – rather than directly measuring – a negative relationship between inequality and equality of opportunity. As these authors put it, "Inequality of opportunity is the missing link between the concepts of income inequality and social mobility; if higher inequality makes intergenerational mobility more difficult, it is likely because opportunities for economic advancement are more unequally distributed among children" (17).

A FRAMEWORK FOR COMPARISONS ACROSS SPACE AND TIME

The Great Gatsby Curve is not a causal relationship, but it is too glib to dismiss it by simply saying "correlation does not imply causation." Theories of child development and economic mobility suggest it is reasonable to juxtapose measures of inequality and mobility as a starting point for understanding the causal process and its policy implications.

The adult outcomes of children reflect a series of gradients between their attainments at specific points in their lives and the prevailing socio-economic inequalities to which they are exposed. Knudsen et al. (2006), to cite only one example, summarize the literature on child development – and in particular some of the work by James Heckman – in a way that relates child development to adult social and labour market outcomes through a recursive process. Socioeconomic status influences a child's health and aptitudes in the early years – indeed even in utero – which in turn influences early cognitive and social development, and readiness to learn. These outcomes and the family circumstances of children, as well as the quality of neighbourhoods and schools, influence success in primary school, which feeds into success in high school and college. Family resources and connections affect access to good schools and jobs, and the degree of inequality in labour markets determines both the resources parents have and ultimately the return to the education children receive. This entire process then shapes earnings in adulthood. The Great Gatsby Curve is a summary of all of these underlying gradients, reflecting the outcome of a whole host of ways that inequality of incomes affects children.

The usual starting points for discussions of causality are the models developed by Becker and Tomes (1979, 1986). Solon (2004) has adapted their research in a way appropriate for making comparisons across countries and over time. Very broadly speaking, the reasons for the differences in the intergenerational elasticity across countries have to do with the different balances struck between the influence of families, the labour market, and public policy in determining the life chances of children. These institutions determine the degree to which traits valuable in the labour market are passed on from parents to children, the efficacy of private and public investments in generating human capital, and the labour market returns to human capital, all of which are important drivers of the degree of intergenerational income mobility.

One perspective on the Great Gatsby Curve focuses on the heritability of traits between parents and their children. Becker and Tomes (1979, 1158) refer to these as "endowments of capital that are determined by the reputation and 'connections' of their families, the contribution to the ability, race, and other characteristics of children from the genetic constitutions of their families, and the learning, skills, goals, and other 'family commodities' acquired through belonging to a particular family culture." If these traits are strongly transmitted across generations, and if they are valued by labour markets over time, then there will also be an intergenerational association of incomes. At the same time, if there is significant demographic diversity across countries, then we should not be surprised that there is an upward slope to the Great Gatsby Curve even if all societies are equally meritocratic. Becker (2013) and Roemer (2012) clearly articulate this interpretation. For this reason we should not think of the Curve as a recipe for changing outcomes. Rather, it invites us to look at the differences between countries to appreciate the underlying drivers, assess the extent to which they are relevant for public policy, and in this sense recognize that some comparisons are more appropriate than others. Denmark, with a relatively small, homogenous population, may not be a template for a large demographically diverse country like the United States; but a comparison of the United States with Canada, a diverse country sharing many fundamental values and institutions with America, may indeed be more appropriate.

Another perspective on the Great Gatsby Curve derives from Solon's (2004) emphasis on the returns to education. He takes the rate of return to schooling as an indicator of the degree of inequality in the labour market and shows that societies with labour markets characterized by more cross-sectional inequality – reflecting in part a higher return to education – will be less generationally mobile. Parents with more human capital not only have a higher capacity to invest in the education of their children by virtue of their higher incomes, but also greater incentives to do so.

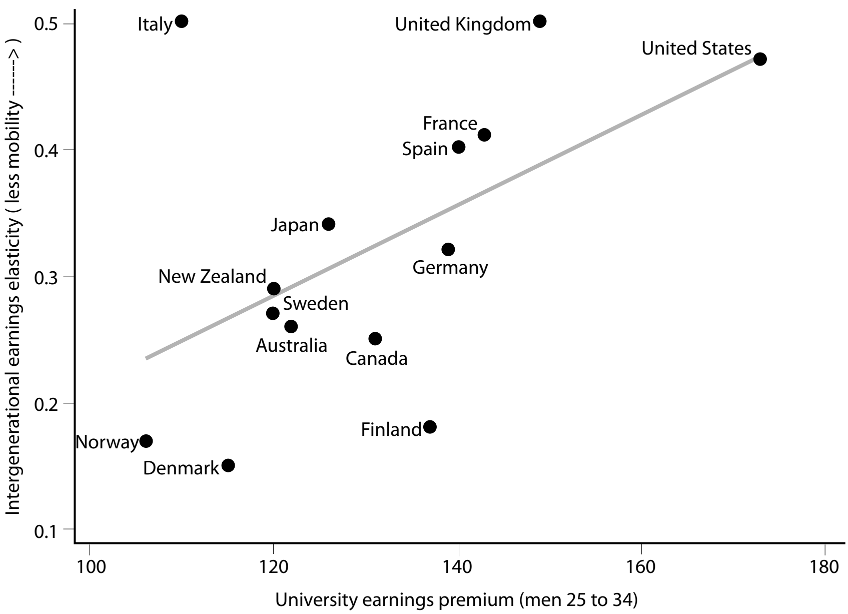
Furthermore, Solon (2004) suggests that public policy can either accentuate or dampen the influence of labour market inequality, showing that intergenerational mobility is promoted by "progressive" public programs that are of relatively more benefit to the relatively less well-off. Two countries may spend the same fraction of their gross domestic product on education, but if this spending is directed to high-quality early childhood education and to primary and secondary schooling accessible for all, then it is likely to be of relatively more benefit to families lower in the socioeconomic scale than if it were directed to high-quality private tertiary education accessible to only a few. Indeed, this perspective should be applied to all public actions that influence the relationship between families and the labour market, which in addition to expenditures on schooling include other sources of human capital like health care, taxes and transfers, as well as regulations and policies helping parents to balance work and family life.

LABOUR MARKET INEQUALITIES AND THE RETURNS TO HUMAN CAPITAL

Labour market outcomes have become more unequal in the United States and many other high-income countries since the late 1970s and early 1980s. This pattern is now very well documented, as have been many of the underlying causes associated with skill biases in technological change, the effects of globalization, and the capacity of the supply of skilled workers to keep up with demand. But institutional differences have also implied that changes in inequality and the returns to skills have varied across countries.

Figure 4 is inspired by the main hypothesis put forward by Solon (2004), and it relates the intergenerational earnings elasticity to the earnings premium a college graduate has over a high school graduate. The earnings premium is measured as the average employment income in 2009 of men 25 to 34 years of age with a college degree relative to the average income of their counterparts with a high school diploma (OECD 2011b, Table A8.1). As the figure illustrates, in countries where the return to college education is higher, intergenerational mobility tends to be lower. Clearly, this is a tendency and there are notable outliers – particularly Italy and to a degree also Finland – suggesting that other forces dominate in those countries. But the premium is higher in the United States than any other country included in the figure: a college graduate earns about 70 percent more than a high school graduate compared to about 30 percent in Canada.

FIGURE 4
Higher returns to schooling are associated with lower generational earnings mobility



Note: The earnings premium refers to the ratio of average earnings of men 25 to 34 years of age with a college degree to the average earnings of those with a high school diploma. This is measured as the average employment income in 2009 of men 25 to 34 years of age with a college degree relative to the average income of their counterparts with a high school diploma (OECD 2011b, Table A8.1). Intergenerational economic mobility is measured as the elasticity between paternal earnings and a son's adult earnings, using data on a cohort of children born, roughly speaking, during the early to mid 1960s and measuring adult outcomes in the mid to late 1990s (see notes to Figure 1).

Sources: OECD (2011b, Table A8.1); Corak (2013).

This correlation between a higher skill premium and lower intergenerational mobility of earnings also holds over time. Aaronson and Mazumder (2008) derive estimates of the intergenerational elasticity of earnings for the United States from about 1940 to about 2000 and compare them with the evolution of the return to education documented by Goldin and Katz (1999). Figure 5, adapted from Mazumder (2012), shows that the father-son earnings elasticity moves over the decades in tandem with the return to education – the changes after 1980 being the most notable. The increase in the returns to college from 9 percent in 1980 to about 13 percent two decades later was matched by a significant increase in the intergenerational earnings elasticity, from 0.38 to about 0.55.[2]

FIGURE 5
The higher the return to college, the lower the degree of generational mobility: United States, 1940 to 2000

Note: Information on the returns to college and the generational earnings elasticity were provided to the author by Bhashkar Mazumder. As reported in Mazumder (2012), these data are respectively from Goldin and Katz (1999) and Aaronson and Mazumder (2008, Table 1, column 2). The 1940 estimate of the elasticity is a projection using Aaronson and Mazumder (2008, Table 2, column 2).

Source: Adapted by the author from Mazumder (2012, Figure 1).

[2] It should be noted that some other researchers have not found statistically significant changes in the intergenerational elasticity of earnings for the United States over the postwar period. For example, see Mayer and Lopoo (2004) and Lee and Solon (2009). However, the Aaronson and Mazumder paper is distinguished by its use of census-based information that offers much larger samples sizes.

Of course, the average premium for higher education is not informative about the distribution of that premium. As Lemieux (2006) points out, relative wages among the highly educated have become much more dispersed since the mid-1970s. He suggests this is the result of a strong heterogeneity in the returns to higher education. Much of the increase in labour market inequality is the result of this heterogeneity and reflects higher wages at the very top of the distribution. Wage growth has been higher for those with a college education in the United States but higher still for those among the college educated with the graduate and professional credentials.

This pattern is consistent with the significant increase in the share of total earnings and incomes accruing to the very top of the distribution. Rising top shares are an important component of rising inequality, and while they have been particularly notable in English-speaking countries, they have increased more in the United States than almost anywhere else, though the United Kingdom and Canada also experienced large increases (OECD 2011a, 39).

These patterns are likely to strengthen the tie between the economic outcomes of parents and children at the top. The generational earnings elasticity is a measure of the average degree of relative mobility, but the underlying issue here is whether it is stronger (that is, non-linear) for high levels of parental income. In some countries this was already evident for the generation that came of age just as top income shares started increasing.

Bratsberg et al. (2007) find that the intergenerational elasticity of income for Denmark, Finland, and Norway is flat across the lower parts of the parental distribution, and then rises at the higher end: that is, being raised by a low-income father confers no disadvantage, but being raised by a high-income father confers an advantage. Björklund, Roine, and Waldenström (2012) and my colleagues and I (Corak and Heisz 1999; Corak and Piraino 2010, 2011) document roughly similar patterns in Swedish and Canadian data: the intergenerational elasticity for top earners is two to three times greater than the overall average. However, Bratsberg et al. (2007) reject this convex pattern for the United Kingdom and United States, suggesting that a linear specification is a better fit. These differences may be substantive, or they may also reflect limitations in the size of the sample available from survey-based data used in the United Kingdom and United States. Sample size is a major limitation in the American literature. In the other countries, the analyses are based upon administrative data with substantially larger sample sizes, and likely better representation at the extremes of the distribution.

FAMILIES AND INVESTMENT IN HUMAN CAPITAL

On the one hand, the impact of the returns to education on the degree of intergenerational mobility can be interpreted as reflecting an important role for the transmission of innate ability between parents and children.

If endowments of this sort are strongly inherited, then their impact on earnings is heightened if returns to schooling are higher: when returns are higher, mobility is as a result lower. But this interpretation also has to account for non-linear patterns in both the returns to schooling and the transmission of incomes across the generations. Non-linearities would seem to imply that top earners are either particularly talented and have, in some sense, more of the characteristics valuable in the labour market to pass on to their children, or that these characteristics are more strongly transmitted between top-earning parents and their children than in middle- or lower-income families.

On the other hand, endowments should not be thought of as fixed traits transmitted mechanically across generations. Anything that boosts inequality reduces mobility because it differentially changes both opportunities and incentives for families to invest in their children. Families with more human capital invest more in their children. These investments are surely influenced by money: high-income parents have more scope to develop their children's skills and attitudes and to enrich their day-to-day experiences, particularly during the early years. But the relevant investments are also non-monetary, reflecting the development of behaviour, motivation, and aspirations, as well as the possibility that high-income families can offer their children connections to selective schools and even to particular employers.

A college education is increasingly a gateway to higher incomes, but in the United States this effect is especially strong for a higher-level education from a selective college. The gap in college completion between children from low- and high-income families has increased significantly during the last two to three decades of increasing income inequality. Bailey and Dynarski (2011) show that the rate of college graduation increased by about 4 percentage points among a cohort of young people born in the early 1980s to low-income parents compared to their counterparts born in the early 1960s. However, among the cohorts born to relatively high-income parents, the rate of college graduation increased by almost 20 percentage points. Certainly the children of high-income families will find it easier to afford college. Belley and Lochner (2007) examine the relationship between family income and education outcomes in more detail and find that, even when controlling for cognitive skills, the strength of the relationship between family income and college attendance increased significantly over this period, about doubling in its impact. This also holds for the quality of the college attended. They suggest that the families of children born in the 1980s and coming of age during an era of increasing inequality are more likely to be borrowing-constrained than families raising children born during the 1960s and 1970s.

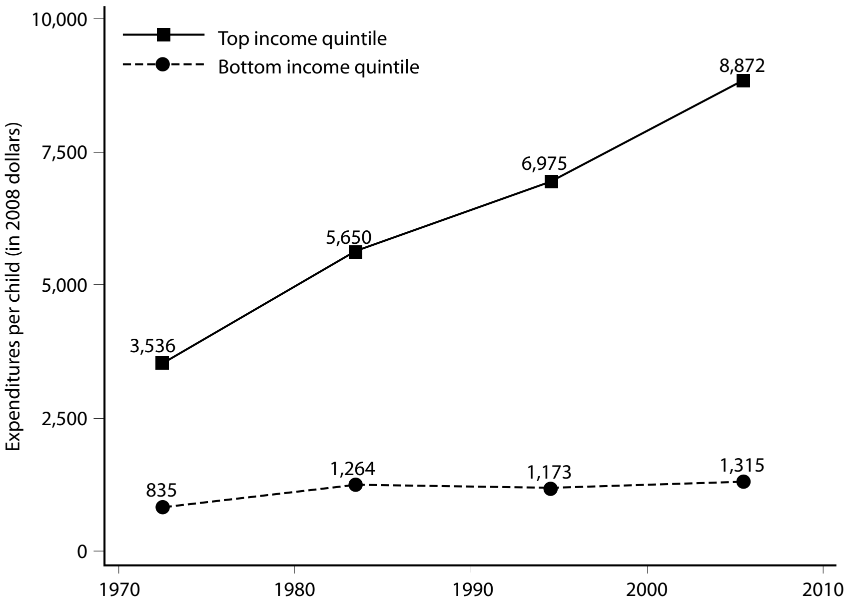
While family income matters, and while in the United States it increasingly matters, it is not everything. Belley, Frenette, and Lochner (2011) illustrate the importance of differences in financial aid in determining post-secondary attendance in the United States and Canada. While the strength of the tie between family income and post-secondary attendance is much weaker in Canada, even when controlling for cognitive skills, their analysis suggests that, at least in the case of public tuition fees and associated financial aid packages, the United States is more generous in its support to children from low-income families than Canada.

One way to explain all this is that the children of low-income families, especially in the United States, may not have the guidance and culture from their families that encourages college attendance, so that the offer of financial aid in and of itself is not enough. A field experiment conducted by Bettinger et al. (2009) points out that a relatively small amount of help given to low-income families in completing a Free Application for Federal Student Aid, or FAFSA, form substantially raises the chances that high school seniors attend college. In other words, the patterns in the United States reflect – to a degree that they do not in Canada – more than the financial capacity of capable high school seniors.

The development of these capabilities during the years before high school graduation has also become more unequal in the way predicted by Solon (2004). Monetary investments outside of formal schooling help promote a child's human capital in the primary school years, and likely raise the odds of having both the skills and the aptitudes to successfully apply to a college when the time comes. These investments have been increasingly unequally distributed over time. Figure 6, adapted from Duncan and Murnane (2011), contrasts the evolution of "enrichment expenditures" by families in the top 20 percent of the US income distribution with those in the bottom 20 percent. These expenditures refer to money spent on books, computers, high-quality child care, summer camps, and private schooling, among other things that promote the capabilities of children. Annual expenditures rose significantly for families in the bottom 20 percent, from about $835 dollars per child during the early 1970s to over $1,300 per child in the mid-2000s. But this pales in comparison to the increase among households in the top 20 percent: the significant gap between the two groups already present in the early 1970s ballooned over these decades as spending by those at the top went from $3,500 to almost $9,000 per child.

The non-monetary capacities of families are also likely to be more limited for low-income families, and this may be especially apparent in America. Corak, Curtis, and Phipps (2011) find that along a whole host of dimensions – the age of the mother, the education of the mother, the incidence of living with both biological parents, as well as the incidence of living in a single parent household – Canadian children, particularly relatively disadvantaged children, live on average in a more enriching family environment than American children. McLanahan (2004) offers a clear presentation of the US trends in similarly defined family resources. She finds that there is a growing divergence in the parental resources available to children according to the education levels of their mothers.

FIGURE 6
Money matters: Higher income families in the United States have higher enrichment expenditures on their children



Note: "Enrichment expenditures" refer to the amount of money families spend per child on books, computers, high-quality child care, summer camps, private schooling, and other things that promote the capabilities of their children. The specific years for the data points are 1972 to 1973, 1983 to 1984, 1994 to 1995, and 2005 to 2006.

Source: Adapted from Duncan and Murnane (2011, Figure 1.6, 11).

The evolution of mothers' age, mothers' employment, single motherhood, and fathers' involvement since the 1970s all indicate as much. Children born to the relatively more educated mothers are increasingly likely to be raised by an older, more mature mother who is working in a better paying job and more likely to be in a stable union. These children are also likely to be spending more time with their fathers. Children born to relatively less educated mothers are increasingly likely over time to be making less significant gains, indeed to be experiencing losses, in the parental resources available to them.

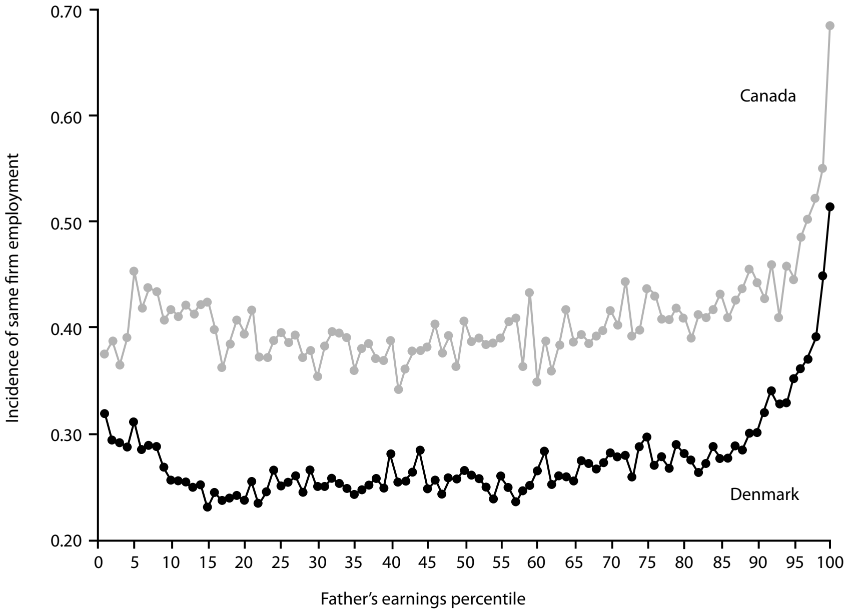
The upshot of all this is that increasing divergence in both monetary and non-monetary investments in children during an era of increasing inequality may well lead to an increasing divergence in cognitive attainments and achievements that are the necessary prerequisites for college success. Reardon (2011) gathers information on math and reading test scores from a variety of sources for birth cohorts from about 1940 to the

2000s and charts the standardized gap between children raised in families with incomes at the 90th percentile and those raised in families at the 10th. Though some of the early trends are not completely conclusive, they seem to suggest that the 90/10 test score gap did not change that much from the 1950s to about the mid-1970s. For subsequent birth cohorts, however, there is a substantial increase amounting to about 30 to 40 percent between the mid to late 1970s and 2001. Even when the most able children of low-income families go to college, they tend not to apply to more selective colleges when compared to children of equal ability from high-income families. Hoxby and Avery (2012) document this tendency and suggest that it occurs in spite of the fact that when the more generous financial aid of selective colleges is considered, the eventual costs of these colleges would often be lower than for non-selective schools.

Finally, the traits relevant for success extend well beyond cognitive development before and during the school years. Families support their children through all the transitions they must make on the way to adulthood, including the transition to active and full-time engagement in the labour market. A more polarized and unequal labour market makes this more of a challenge for some than for others and also implies that family connections will matter all the more.

In Corak and Piraino (2010, 2011) and Bingley, Corak, and Westergård-Nielsen (2012), the evidence suggests a strong tendency for labour market connections, in some sense, to matter for child outcomes. We document a very strong transmission of economic status at the top, even in relatively mobile countries like Canada and Denmark. In particular, we show that the intergenerational transmission of earnings at the very top is associated with the intergenerational transmission of employers. Sons of top-earning fathers are more likely to fall from the top strata if they did not work for the very same employer for which their father had also worked. Figure 7 documents the intergenerational transmission of employers across the percentiles of the paternal earnings distribution for the two countries we analyze in Bingley, Corak, and Westergård-Nielsen (2012). This finding is based upon the broadest of the definitions we use: for sons in their early 30s, the incidence of ever having worked for an employer that had ever employed their fathers. The patterns in these two relatively mobile countries are remarkably alike: the overall levels differ, but there is a distinct tendency for the proportion to be much higher at the upper tail. Overall, about four out of every ten young Canadian men at some point held a job with an employer who in the past also employed their fathers. The intergenerational transmission of employers rises for those born to fathers in the top 10 percent of the income distribution, and sharply so for those born to fathers at the very top. Almost seven out of ten Canadian sons born to top 1 percent fathers had a job with an employer for which their father had also worked, and in Denmark a little over half of sons at this level did so.

FIGURE 7
Proportion of sons currently employed or employed at some point with an employer their father had worked for in the past: Canada and Denmark (by father's earnings percentile)



Source: Adapted from Bingley, Corak, and Westergård-Nielsen (2012, Figure 18.2, 448).

There is no direct evidence that these patterns also characterize the American labour market, though Datcher Loury (2006) suggests that in the United States up to half of jobs are found through family, friends, or acquaintances. She also shows that the highest wages are paid to those who find jobs through "prior generation male" relatives who actually knew the potential employer or served as a reference. While this information does not appear to be available across the US earnings distribution, the literature on the succession of chief executive officers in family firms hints at the possibility that the incidence could be higher at the very top. Pérez-González (2006) examines just over 300 CEO transitions and finds that in more than one-third, the new CEO had a family connection. In addition, these transitions were associated with a decline in firm performance, particularly so when the newly appointed family member did not attend a select college. Bennedsen et al. (2007) offer a similar but more detailed analysis with Danish data. Using instrumental variables, they more firmly document a causal impact of family succession on declining performance.

While these patterns may reflect simple nepotism, and the historical review by Bellow (2003) suggests that possibility, other interpretations are also possible. If there is an intergenerational transmission of firm-specific skills, then children inherit human capital that has a higher return when they are employed by the family firm. In this sense, the intergenerational transmission of employers might be interpreted as another reflection of the transmission of skills and traits valuable for labour market outcomes. But the decline of firm performance upon the succession of a family member would seem to suggest that family members do not on average have a distinctly more valuable set of skills or managerial talent.

In Corak and Piraino (2010, 2011) and Bingley, Corak, and Westergård-Nielsen (2012), my co-authors and I show that the intergenerational transmission of employers is higher when fathers report self-employment income, and presumably have control over a firm and hiring decisions. But we also show that the patterns are much broader, and not due simply to firm ownership. Other factors, like information about the labour market or "connections" (in the sense used by Becker and Tomes) help to structure a child's job search and play a role in generating the intergenerational transmission of employers across the entire parental income distribution, but particularly at the top.

My own sense is that in the United States, and also the United Kingdom, this channel between parent and child economic status due to connections probably works more strongly for top earners through college choice, particularly through the select colleges. Anecdotal evidence is also often used to suggest that access to unpaid internships, which permit the development of on-the-job training and firm-specific human capital, is also tilted toward children of the relatively well-to-do, whose families have the resources to finance them.

PUBLIC POLICY AS LEVELLING OR TILTING THE PLAYING FIELD

Public policy can affect the investments made in children across the entire income distribution. It can also affect how families interact with labour markets. The United States stands out in the degree to which government programs are of relatively more benefit to the advantaged. As such, these programs are more likely to exacerbate rather than blunt the degree to which labour market inequalities are passed on across generations.

When the Pew Charitable Trusts asked Canadians what they understood the good and successful life to be – the dimensions of what might be thought of as the "Canadian Dream" – the responses were uncannily similar to how Americans defined the "American Dream." In Corak (2010), I report that the citizens of both countries value the ideal of equality of opportunity and define it – almost exactly to the very same degree – in terms of individual freedoms. They also recognize the importance of individual responsibilities, and have an equal aversion to "equality of outcomes" as a desirable end. The biggest difference in this comparative analysis of similarly worded public opinion polls concerned the view of government and public policy. Americans were more inclined to view government as doing more harm than good in their pursuit of the American Dream; at the same time, they viewed a whole host of possible public policy interventions as effective in promoting economic mobility. From this, I surmise that they had less confidence that their federal, state, and local governments could implement and manage effective policy changes.

As a result, there are significant differences in the broader social circumstances under which children in the two countries are being raised. Carasso, Reynolds, and Steuerle (2008) attempt to estimate the global incidence of US federal government spending on programs, like education, that promote mobility, placing them into a broader context of total program spending. They find that the US government spends considerable amounts in this way, up to 1.6 percent of GDP in 2006, but that only about one-quarter of these expenditures are to the benefit of lower- to moderate-income individuals.

A notable example is the education system. At almost $15,000 per student, America spends more on the schooling of its children than almost any other high-income country (OECD 2011b). But the American education system does not promote mobility to the extent that it could, because educational spending is more likely to benefit the relatively well-to-do. The OECD suggests that the higher levels of spending in the United States – both private and public – are driven by much higher spending on tertiary education. For every $1 spent on primary education, $3 is spent on tertiary education, the highest ratio of all high-income countries. Further, tertiary spending is dominated by private sources of financing, which make up over 60 percent of all spending on this level of education. Education spending, in other words, is allocated to make higher education relatively more of a priority, and in a way that is of relatively more benefit to the relatively advantaged.

The demand for high-quality college education among the relatively well off expresses itself in a demand for high-quality primary and secondary schooling that offers a gateway to a good college education. While America also spends more on primary education per pupil than many other countries, significant inequalities in parental resources express themselves in the structure of the system, leading to variations in financing, quality, and access in a way that does little to level the playing field. The OECD (2012, 30) summarizes its research on this issue in this way: "Currently the United States is one of only three OECD countries that on average spend less on students from disadvantaged backgrounds than on other students.... Moreover, the most able teachers rarely work in disadvantaged schools in the United States, the opposite of what occurs in countries with high-performing education systems."

At the same time, socioeconomic differences in readiness to learn among children just starting school are larger in the United States than in other countries, making the challenge faced by the schooling system all the greater. Bradbury, Corak, Waldfogel, and Washbrook (2012) study vocabulary development and behavioural problems among four- and five-year-olds in 2000 in Australia, Canada, the United Kingdom, and the United States. We find inequalities according to family income and mother's education in all four countries. But in general, these are notably greater in the United States and most muted in Canada.

In Corak, Curtis, and Phipps (2011), my co-authors and I look at a wider cohort of children from newborns to about 13 years of age during the late 1990s – that is, those who were among the first to be raised in an era of rising inequality and who will in the coming years be the subject of the next generation of intergenerational mobility studies – to find that they are much more affluent in the United States than in Canada, having on average almost one-third more income. Though children in both countries are distributed across their countrywide income distributions in the same way, the gap between bottom and top children differs in the two countries. In the United States it is much greater: a child in the top decile of the income distribution has 14 times as much as a bottom decile child. In Canada a top decile child has only 7.5 times as much economic resources as a bottom decile child. When we placed Canadian children in the American income distribution, adjusting their incomes using an index of Purchasing Power Parity, they tended to be lower-middle income in status. However, while Canadian children are much less likely to be in the top half of the American income distribution, they are also less likely to be in the bottom 10 percent, so their low income, in this absolute sense, is not as great.

Public regulations and provision of goods associated with human capital likely do more to level this playing field in Canada than in the United States. In Corak, Curtis, and Phipps (2011), we show that mental and physical health, school readiness, and some education outcomes are on average higher in Canada, and less tied to family circumstance. It is not a simple task to attribute these outcomes to the public provision of goods in a causal sense. However, we suggest that universal provision of health care is associated with more preventative care for children, which reduces the number and severity of health shocks that could have longer-term consequences. In addition, parents have more flexibility in making child care and work arrangements in Canada. For the study period we consider, the late 1990s, there seemed to be more part-time employment in Canada, and a significant policy change in the mid-1990s extended paid parental leave for up to almost one year after a child's birth and gave parents the right to return to their job. Income support to families was also reformed around the same time, delivered through the income tax system and more targeted and generous for lower-income families. The program is substantially more generous than its American counterpart and is more likely to reach all families with children because tax-filing rates are nearly universal. In fact, more recently some provincial governments have introduced full-time kindergarten for four-year-olds.

In contrast, total hours of labour supplied by household members were higher in the United States during this period, but also polarized across families. This finding is associated with a more limited system of parental leave. While relatively well off households are able to afford high-quality child care or have one partner, usually the mother, withdraw from the labour market, lone parents have fewer child care options and are likely to continue working. The methods used by Corak, Curtis, and Phipps (2011) certainly fall short of establishing a causal impact on child attainments, either in the long or short run, but our study does demonstrate that public policy is contributing to parents balancing the demands of work and family in different ways in the United States and Canada.

CONCLUSION

Relatively less upward mobility of the least advantaged is one reason why intergenerational mobility is lower in the United States than in other countries to which America is often compared. But it is not the only reason. Intergenerational mobility is also lower because children of top-earning parents are more likely to become top earners in their turn. An era of rising inequality is more likely to heighten these differences than to diminish them. The cohort of American children raised since the 1980s, who will reach their prime working years in the coming decade, is likely to experience an average degree of intergenerational income mobility as low – if not lower – than previous cohorts who were raised in an era of less inequality.

Inequality lowers mobility because it shapes opportunity. It heightens the income consequences of innate differences between individuals; it changes opportunities, incentives, and institutions that form, develop, and transmit characteristics and skills valued in the labour market; and it shifts the balance of power so that some groups are in a position to structure policies or otherwise support their children's achievement independent of talent.

Thus, those who are concerned about equality of opportunity should also care about inequality of outcomes, but only to the extent that these differences in outcomes are due, in the words of John Roemer (2004), to "differential circumstances." Roemer considers three categories of circumstances through which parents may give their children an advantage. First, parents may transmit economic advantages through social connections facilitating access to jobs, admission to particular schools or colleges, or access to other sources of human capital. Second, parents may influence life chances through the genetic transmission of characteristics like innate ability, personality, and some aspects of health that are valued in the labour market. Third, parents may influence the lifetime earnings prospects of their children in subtle ways, such as through a family culture and other monetary and non-monetary investments that shape skills, aptitudes, beliefs, and behaviours. When it comes to “equality of opportunity,” a common pattern is that people tend to support policies that would ensure a level playing field in access to jobs and education; they are less willing to take steps to offset genetic advantages, and they are conflicted about what steps might be appropriate in counterbalancing within-family investments. But my main point here is that deciding which circumstances should be offset by policy steps of some kind (and as a result the fraction of parental income advantage passed on to children that is consistent with “equality of opportunity”) is a value judgment that different societies may well make differently.

The demographic diversity among the high-income countries, and their underlying values, imply that it may well be impossible, and indeed not even desirable, to change the degree of mobility in countries like the United Kingdom or the United States into the rates observed in Denmark. Rather, the cross-country comparison of intergenerational mobility of the sort offered by the Great Gatsby Curve invites us to reflect on what makes one country different from another so we may clarify the underlying drivers and determine whether these are forces that can change and whether we want them to change. This is one reason why parts of this overview have focused on the differences between the United States and Canada, and more importantly on changes within the United States over time.

The inequality literature has paid little attention to the intergenerational consequences of the increasing top-income shares that it has so carefully documented. Freeland (2012) graphically documents the degree to which the top 1 percent, by virtue of the magnitude of their income, are divorced from the rest of the population in their work arrangements, consumption behaviour, and beliefs. I have argued here that the top 1 percent are also different in the way advantages are passed on to the next generation, which certainly involves much higher-quality schooling and other investments of human capital from the early years onward, but may well also involve nepotism in the allocation of jobs. Children of top earners are more likely to grow up to be top earners. Indeed, at some point the high levels of earnings accrued by the top 1 percent will be reflected in capital accumulation, and eventually lead to stronger intergenerational transmission of wealth, a topic not addressed at all here. This dynamic at the top, and its underlying drivers, are likely very different from the configuration of forces determining intergenerational mobility for those in the lower half of the income distribution. Even so, some countries are likely to combine a good deal of intergenerational mobility with higher top shares because the balance in the lower parts of the income distribution among labour market inequalities, the health and vitality of the family as an institution, and broad, high-quality, and accessible public investments in human capital will not be (much) skewed by top earners. This pattern may well be the case in Sweden and Canada: Björklund, Roine, and Waldenström (2012) and my co-author and I in Corak and Piraino (2010) suggest that, for these two countries, high mobility for most coexists with a "dynasty" for the top 1 percent.

A similar dynamic seems unlikely to unfold in the United States. While the imagined prospect of upward mobility for those in the lower part of the income distribution shares little in common with the generational dynamics of the top 1 percent, the latter may well continue to be an important touchstone for those in, say, the top fifth of the US income distribution. After all, this group too has experienced significant growth in its relative standing, which partly reflects an increasing return to the graduate and other higher degrees for which they exerted considerable effort but is also linked to a background of nurturing families and select colleges. This group has both the resources and incentives to turn more intensely to promoting the capacities of their children. With effort and a bit of luck, it is not unreasonable for them to believe they may yet cross the threshold into the top 1 percent, and they can certainly imagine that their children stand just as good a chance, if not better. For them the American Dream lives on, and as a result they are likely not predisposed, with their considerable political and cultural influence, to support the recasting of American public policy to meet its most pressing need, the upward mobility of those at the bottom.

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A TALE OF TWO CITIES? THE SURGE OF TOP INCOMES AT THE CITY LEVEL IN CANADA

BRIAN MURPHY AND MICHAEL VEALL

INTRODUCTION

Saez and Veall (2005, 2007), Murphy, Roberts, and Wolfson (2007), and Veall (2012) have all used tax-filer data to document and describe the surge of top incomes in Canada beginning in the mid-1980s. For example, the data in the last study showed that the top 1 percent of all tax filers received about 8 percent of all pre-tax market income (excluding capital gains) in 1986. This increased to 14 percent by 2007, falling to 12 percent in 2009. New data compiled for this study indicate that this figure held steady in 2010.[1] Veall (2012) provides some provincial-level results showing that the surge is much sharper in Alberta, British Columbia, and

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[1] In constant 2011 dollar terms, the minimum (average) values for a tax filer in the top 1 percent were $147,100 ($253,300) in 1986, $211,700 ($505,300) in 2007, $205,600 ($443,300) in 2009, and $205,500 ($440,100) in 2010. The papers cited in the first sentence pursued a number of income definitions in different ways to include capital gains and transfer payments, exclude stock option income, net out taxes, and consider income of couples and families. All found a top-share surge. In addition, longitudinal moving averages by individual and empirical transition probabilities were examined to ensure that the empirical surge in national annual shares was not due to increased income immobility. On this last point, see also Beach, Finnie, and Gray (2010) for a similar conclusion.

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

Ontario. However, no city-level analysis is provided, a gap this current study begins to fill.

One reason for examining city-level data is the increasing economic importance of cities. For example, Courchene (2005) writes, "Vancouver, Edmonton/Calgary, Winnipeg, Toronto, Montreal, and Halifax, among others, are the driving forces behind their respective regions' and provinces' integration in the NAFTA economic space" (3). He stresses (as in Courchene 2000, 161) that Toronto and the larger centres are "global city-regions" or GCRs. Courchene (2005) continues,

> In this framework GCRs assume the dual economic roles of dynamic export platforms and of learning and innovation platforms that, in tandem, attract industry clusters which, in turn, attract talent (human capital) in search of rewarding and remunerative work. Yet this people-to-jobs or people-to-industry causation is now being complemented, and in some ways even supplanted, by the opposite industry-to-people causation arising from the human-capital and quality-of-life aspects of city competitiveness. (4)

He cites Florida (2002), who emphasizes that cities are not only places where the creative class can cluster but also provide "an organizational spatial and network matrix for matching talent and jobs" (6).

Courchene's comments suggest that the top income surge may have an important geographic element and that it might also be of value to examine the relationship with migration. Accordingly, in this chapter we examine the top income surge at the regional and city level. We find that the national surge in top incomes can be disproportionately attributed to cities. Indeed, by using a simple decomposition, we show that the top income surges in two cities – Calgary and Toronto – comprise more than half of the national surge. Other cities have smaller but still significant surges. While these results are clearly consistent with Courchene's emphasis, the evidence is less clear-cut regarding the top 1 percent of interprovincial migration rates, which is lower than the overall rate and has been falling along with the overall rate for the last 30 years. The Alberta share of top 1 percent interprovincial migration has been rising somewhat, but not dramatically, and we note in passing shows only a small association with the introduction of the flat tax in 2001. Hence the initial evidence suggests at best a weak relationship between interprovincial migration and the top income surge. Finally, we utilize the linkage in the data of individual to industry of employer and find that for some industries, the top income shares are not much different across cities or as compared to the national top income share for that industry, but for other industries there are great differences.

In short, while the evidence does not neatly point in a single direction, our results suggest that the top income shares have an important geographic component. While this study is focused on Canada, we know of no work for other countries that compares.[2] Indeed, there may not be other countries with numerous cities for which sufficient data are currently available for researchers. Hence it may be that the income surges in other countries have important city-level aspects as well.

LITERATURE REVIEW

The large body of research in the work of Atkinson and Piketty (2007, 2010) and in the survey articles by Leigh (2007) and Atkinson, Piketty, and Saez (2011) describes for many countries the trends in top income shares, that is, the share of total income accruing to say the top 1 percent, the top 0.1 percent, and the top 0.01 percent of the population. Much of this work, the estimates from which are collected by Alvaredo et al. (2012) in the World Incomes Database, has used personal income-tax data, which for many countries can be informative about the top end of the income distribution, that is, about the numerator of a top income share. Such data, at least in principle, have been available since the inception of the personal income-tax system. Aggregate personal income, the denominator of the top income share, can often be inferred from national accounting information or other nationwide income statistics. Accordingly, for many nations it has been possible to estimate top income shares since the early twentieth century. For example for Canada, the Saez and Veall estimates begin with data from 1920. A common finding for most countries is that top income shares begin falling sometime between World War II and the late 1950s and continue falling until about 1980.

However, current observations have attracted somewhat more attention. The most well known finding is that for many nations, including the United States, Canada, the United Kingdom, Australia, New Zealand, and Ireland – countries that Atkinson (2005) and Piketty (2007) emphasize have English-speaking majorities – there was a surge in top income shares beginning somewhere around 1980, accelerating sharply during the 1990s and then slowing since 2000, albeit with sharp procyclical fluctuations. The trends are much more muted in continental Europe or Japan.[3]

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[2] There is research on the city-state Singapore by Atkinson (2010). In addition, in some cases estimation of the income for top shares relies on data for particular cities for interpolation of national data. For example, Alvaredo (2010) uses data that include only greater Buenos Aires for some years in his estimates for Argentina. Piketty and Qian (2010) provide some estimates separately for urban and rural China.

[3] The estimates for Germany are not as current, nor are they in complete agreement. The data in the World Top Incomes Database are from Dell (2007), end in 1998 and are based on tax-filer data. No surge is reported for the top 1 percent, top 0.1 percent, or top 0.01 percent shares in the 1980s and 1990s. Bach, Corneo, and Steiner (2009) report similar results up to 2003, but find a surge in the top

Another somewhat older line of inquiry in income distribution has been the rural-urban gap. This has been primarily an issue in development economics.[4] However, there has also been significant investigation of the rural-urban income gap in Canada (e.g., Coulombe 2000; Singh 2004) and in the United States (e.g., Landefeld 2011).

There has also been a line of research related to productivity and wage-setting within cities. Albouy (2009), for example, argues that progressive federal taxation in the United States inefficiently taxes the high incomes generated by higher productivity within cities (e.g., because there is no allowance for higher housing costs). Further, Beaudry, Green, and Sand (2012) study city labour markets in the United States. The work of Albouy, Leibovici, and Warman (2013) is particularly relevant as they study income and housing cost differentials across Canada in order to infer relative attractiveness and productivity by city using a hedonic approach. On the theoretical side, Davis and Dingle (2012) present a model that captures some of the aggregation economies described by Courchene and Florida in the studies mentioned in the introduction. A broader survey of such theoretical and empirical research is provided by Glaeser and Gottlieb (2009).

DATA

This research on cities leads to questions regarding national top income shares. To what extent is the national surge in top income shares due to rising incomes within cities? And turning to within-city income concentration, are top shares rising in some cities, and if so which?

The Statistics Canada Longitudinal Administrative Databank (LAD) is the data source used by Murphy, Roberts, and Wolfson (2007) and Veall (2012) in their national (and in the latter case) provincial analyses.[5] Hence

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0.001 percent and 0.0001 percent shares. For roughly comparable time periods, Fabbri and Marin (2012) use executive compensation data to estimate that German CEO salaries were increasing significantly and Dustmann, Ludsteck, and Schonberg (2009) find an increase in wage inequality using (right-censored) social security data.

[4] Of the many examples, see Lipton and Eastwood (2005), Cali (2007), and Sahn and Stifel (2003). For a more recent emphasis on the rural-income gap in China, see Sicular et al. (2007), Benjamin et al. (2008), and Benjamin, Brandt, and Giles (2011).

[5] The LAD is an anonymized, annual 20 percent sample of tax filers for Canada from 1982 to 2009. LAD coverage increased substantially during the early 1990s when the introduction of the GST credit and the Child Tax Benefit increased the number of tax filers. However, the similarity between the results of Saez and Veall (2005, 2007), which estimated top shares by all individuals aged 20 and above, and the other studies, which estimated top shares of tax filers alone, suggests that this

it is natural to determine what can be learned from it at the city level. While many researchers have employed the LAD, including those that used information about geographic location and the size of the community in which the tax filer resides, the analysis of data by individual city is less common.[6] The analysis of incomes of recent immigrants by Picot, Hou, and Coulombe (2007) is one exception.

RESULTS

Cities and top shares

Our results are exploratory and are presented graphically. Figure 1 employs data from Saez and Veall (2005) from 1920 to 1981 (based on interpolations/extrapolations of aggregate tax data and national accounts information) and calculations based on tax-filer data alone for 1982 to 2010, where the 2010 observation is new to this study. The figure shows the share of market income of the top 1 percent recipients, where market income is income before tax and does not include transfer payments. The surge beginning around 1977 and continuing to 2007 is clear, as are temporary drops of various sizes associated with the 1981, 1991, and 2001 recessions. There was another more substantial drop associated with the Great Recession of 2008 that continued into 2009, but the top share steadied in 2010.

As Veall (2012) observes, the surges vary substantially across provinces, with the biggest surges in Alberta, Ontario, and British Columbia. This clear geographic element in the surge suggests the potential differential trends by city – the main focus of our study.

Figure 2 begins this city-level analysis by charting the movements of the local top 1 percent share of market income over time; for example, in 2010 more than 17 percent of all income reported by individual filers in Calgary was reported by the top 1 percent. It can be seen that while there was a clear surge in the other selected cities,[7] in those cases the surge

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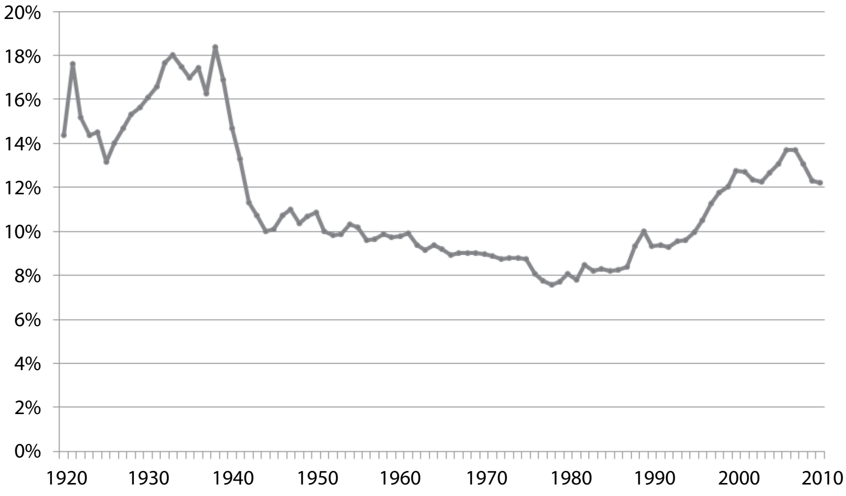
coverage increase is not driving the results. All records are linked longitudinally. There is also a household analysis in the LAD. As noted by Saez and Veall (2005, 2007) and Veall (2012), this analysis has been used to confirm that the individual surge was mirrored by a surge in income of couples and in equivalized family income.

[6] In this analysis we have excluded deceased filers in their year of death as income can rise in the final year of life due to the deemed disposition of assets.

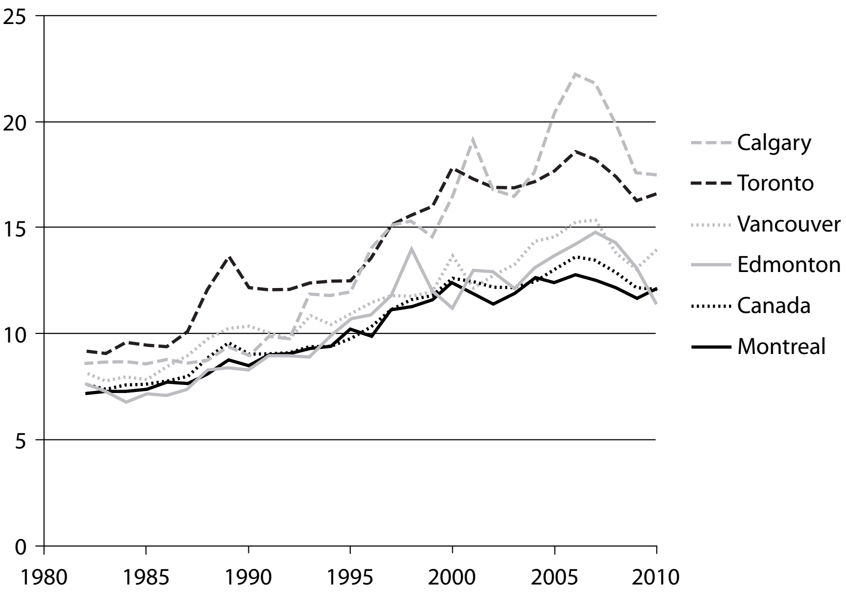
[7] We use the term "cities" to refer to the census concepts of Census Metropolitan Area (CMA) or Census Agglomeration (CA). Statistics Canada's Geography Division prepares a file annually that maps postal codes into their corresponding CMA or CA.

FIGURE 1
Market income share of the top 1 percent, Canada, 1920–2010



Sources: Saez and Veall (2005, 2007) and Veall (2012), updated for this study by custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

FIGURE 2
Local top 1 percent share of market income, selected CMAs



Note: CMA = Census Metropolitan Area.

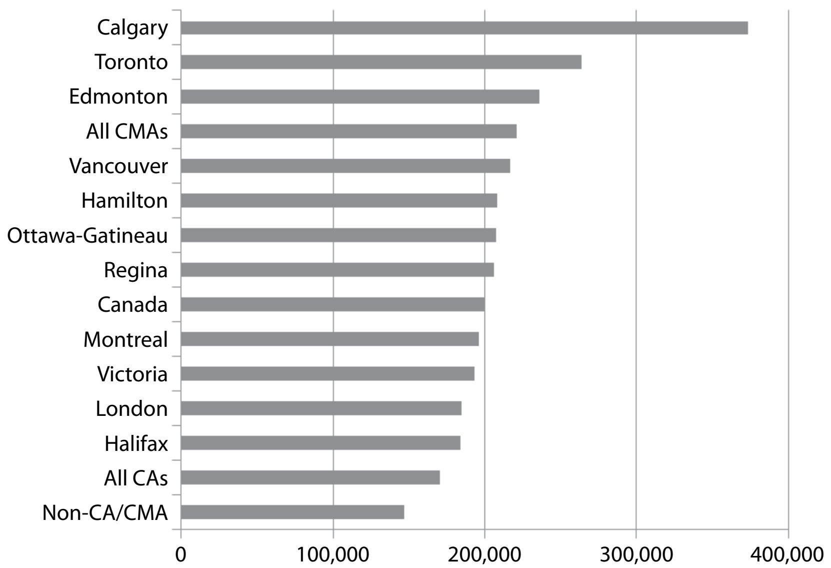
Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

was comparable with the overall Canadian trend. Toronto and Calgary were the only large Canadian cities to greatly exceed the Canadian trend.

Figures 3a and 3b show more ways that Calgary and Toronto stand out from other cities in these data. Figure 3a gives the top 1 percent thresholds that are the minimum income required to be in the top 1 percent in a number of a cities. For Calgary, the threshold is $373,600 in 2010 (down sharply from about $422,600 in 2007). In Toronto, the threshold is about $263,400. These are much greater thresholds than the other values on the chart. For example, the threshold for Census Metropolitan Areas (the census areas associated with large cities) is about $221,000, and the overall Canadian threshold is about $200,000. Note that the thresholds for CAs (Census Agglomerations, smaller cities typically with populations of 100,000 or less) and non-CA/CMAs (smaller towns and rural areas) are much less still.

Figure 3b also examines top 1 percent local thresholds, but as multiples of median local income, for both 1982 and 2010. In Toronto the top 1 percent local threshold income in 2010 was more than a factor of 12 greater than local median income in 2010, as compared to a factor of 6 in 1982. The surge in Calgary measured this way was almost as great. It is again clear that Toronto and Calgary stand out, but it is also clear that this measure of inequality rose sharply in many other cities.

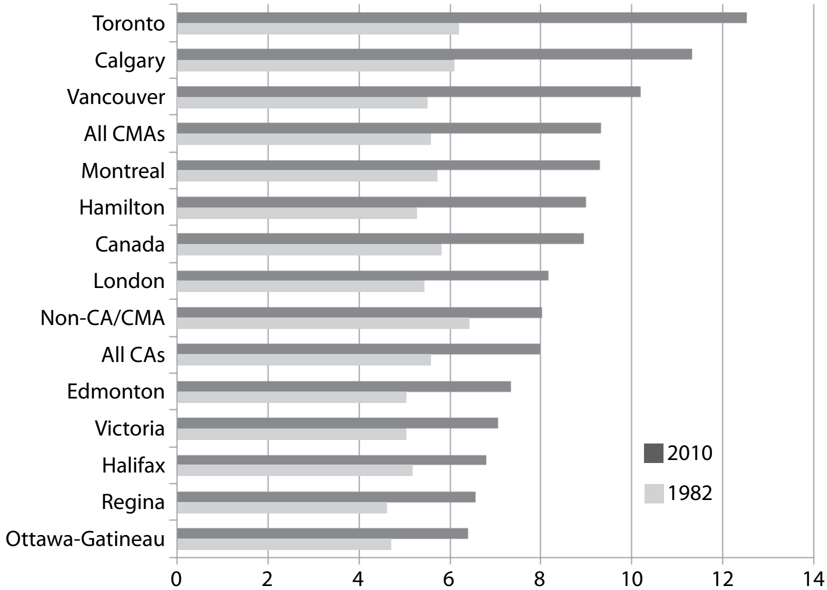
FIGURE 3a
Local market income 1 percent thresholds, selected cities, 2010



Note: CA = Census Agglomeration. CMA = Census Metropolitan Area.

Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

FIGURE 3b
Ratio of top 1 percent local threshold to local median, market income



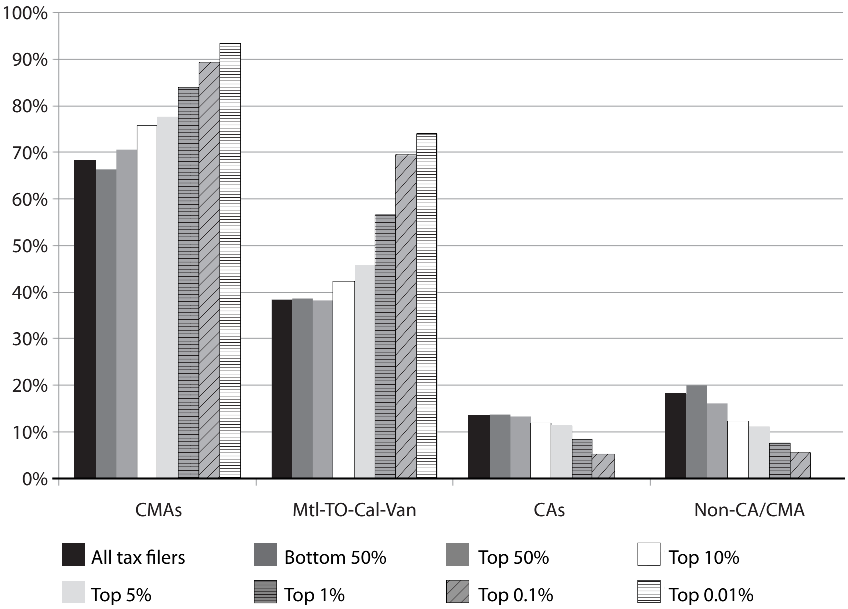
Note: CA = Census Agglomeration. CMA = Census Metropolitan Area.
Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

Figure 4 shows that cities also have an important association with other top income shares. For example, all CMAs together have just under 70 percent of all filers in Canada but about 90 percent of all filers in the top 0.1 percent and top 0.01 percent in Canada. The second cluster shows that under 40 percent of all Canadian filers live in Montreal, Toronto, Vancouver, or Calgary and that those CMAs contain about 70 percent of filers in the Canadian top 0.1 percent and top 0.01 percent. In contrast, the smaller cities (CAs) and the towns and rural areas (non-CA/CMAs) have a much smaller proportion of filers in the national top 0.1 percent and a negligible proportion in the top 0.01 percent.

While not shown here for brevity, we have explored empirically a number of aspects of this association between top shares and urbanization. For example, there is little evidence that the share of income in the top shares that is wage and salary income is much different in CAs or non-CA/CMAs from that in Canada as a whole. The share of top 1 percent income that comes from labour income is lower in Quebec, Sherbrooke, Montreal, somewhat lower in Toronto, and somewhat higher in Calgary and Edmonton.

We also explored whether there was persistence in the top 1 percent. We find for example that for Canada as a whole, a little more than 50 percent of those who were in the top 1 percent in 2010 were also in the top 1 percent

FIGURE 4
Distribution of filers by market income quantile group and urbanization, 2010



Note: CA = Census Agglomeration. CMA = Census Metropolitan Area.

Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

in 2005 (Figure 5). Such measured persistence was a few percentage points higher in Toronto and Montreal and a bit lower in Calgary and Edmonton. The recent trend in this "immobility rate" is upward, and hence it does not explain the increases in top shares at either the national or city level.

Finally, for this part of the analysis, the national surge is decomposed by city.[8] Figure 6 shows that about 50 percent of the surge is attributable to Toronto and Calgary alone. (Note that in 2010 about 16 percent of Canadian

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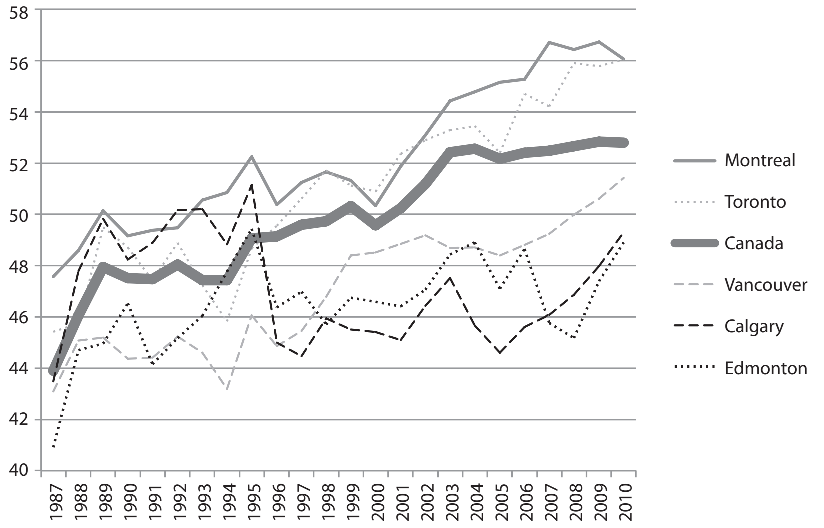
[8] For this decomposition let H_{2010} be the income of the top 1 percent in 2010 for Canada and $H_{2010,k}$ be the income of those in the Canadian top 1 percent who live in jurisdiction k, where there are a total of K jurisdictions. Let P_{2010} be total income for the population of tax filers. Define values for 1982 similarly. Then the national surge from 1982 to 2010 can be defined as:

$$\frac{H_{2010}}{P_{2010}}-\frac{H_{1982}}{P_{1982}}=\left(\frac{H_{2010,1}}{P_{2010}}-\frac{H_{1982,1}}{P_{1982}}\right)+\left(\frac{H_{2010,2}}{P_{2010}}-\frac{H_{1982,2}}{P_{1982}}\right)+\cdots+\left(\frac{H_{2010,K}}{P_{2010}}-\frac{H_{1982,K}}{P_{1982}}\right),$$

so that the contribution of jurisdiction k to the surge is

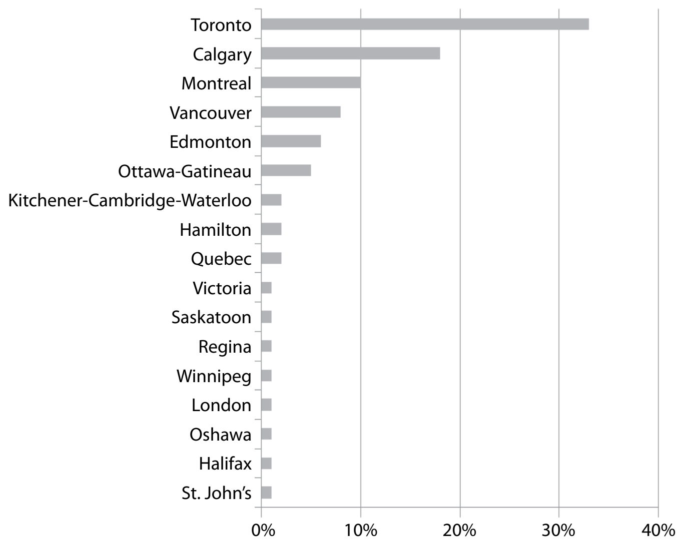
$$\left(\frac{H_{2010,k}}{P_{2010}}-\frac{H_{1982,k}}{P_{1982}}\right)\Big/\left(\frac{H_{2010}}{P_{2010}}-\frac{H_{1982}}{P_{1982}}\right).$$

FIGURE 5
Immobility rate for the top 1 percent, by year, 1987 to 2010



Note: The immobility rate for any year is defined here as the percentage of the top 1 percent income recipients of that year who were also in the top 1 percent five years earlier.
Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

FIGURE 6
Decomposition by city, 1982–2010, in cities with over 1 percent share of surge

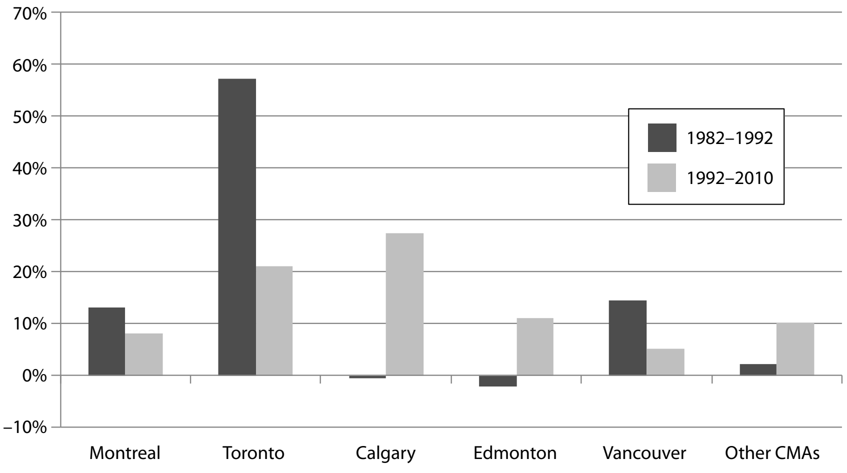


Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

filers were from Toronto and about 3 percent were from Calgary.) Other CMAs, principally Montreal, Vancouver, Edmonton, and Ottawa-Gatineau, contributed to the surge, but much less, and about in proportion to their share in total filers. Smaller cities (CAs) and towns/rural areas (non-CA/CMAs) contributed less than 1 percent of the surge and hence are not shown.

The surge was not evenly distributed across time for all cities. In particular, close to 60 percent of the top 1 percent surge during the 1982–1992 period was attributable to Toronto (Figure 7). During the 1992–2010 period, the surge was much more evenly distributed across the major CMAs; Calgary accounted for the largest share of the surge at nearly 30 percent, followed by Toronto at about 20 percent and Edmonton at just over 10 percent.

FIGURE 7
Share of top 1 percent surge, large CMAs, 1982–1992 and 1992–2010



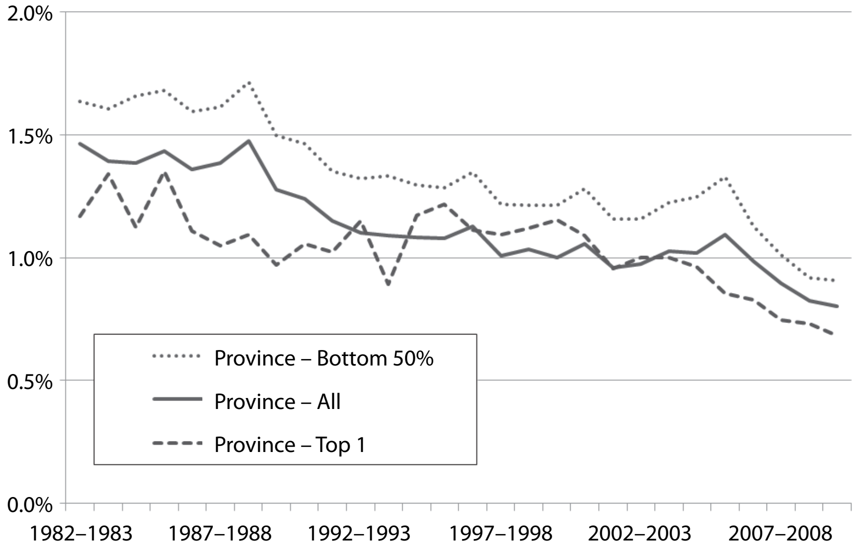
Note: CMA = Census Metropolitan Area.

Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

Migration and industry-city analysis

Our exploratory analysis now considers two further issues. First, does the geographical aspect of the surge induce migration? Because of sample size and hence confidentiality issues, we initially focus our analysis on all migration from provinces (an area of study pioneered by Courchene 1970). Here we use total income (income including transfers) rather than market income to define our categories. Figure 8 shows that one-year interprovincial migration rates have been falling. The migration rate by those in the top 1 percent is typically lower than the overall interprovincial migration rate.

FIGURE 8
Percentage of filers moving province by year, selected quantiles, national threshold



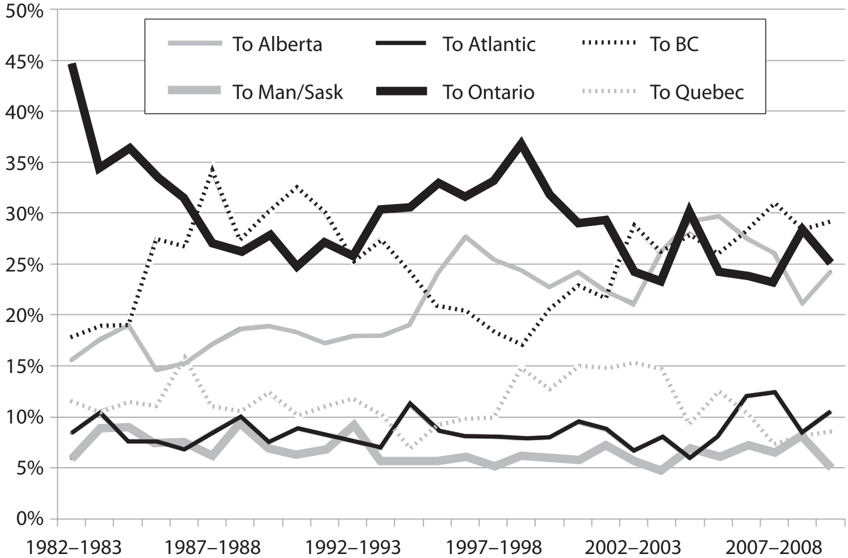
Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

We analyze the top 1 percent from Figure 8 in more detail in Figure 9. As a warning, this is the first graph in this study where the percentages are based on rather small numbers. On average, about 2,000 of the top 1 percent income recipients move provinces each year with an average of about 300 per destination category, and recall we are working with a one-fifth sample.[9] Nonetheless, while there is a modest pickup in the share of interprovincial migration to Alberta and a reduction in Ontario's share, the results do not appear dramatic. Any response to the introduction of the flat tax in Alberta in 2001 is muted.

Finally, we explore top shares within city-industry cells. Because the focus is on industry, we examine the shares of wage and salary income paid by these industries. As these cells can be small, to preserve confidentiality we use the top 5 percent shares by city and industry. For each industry, we present results for six cities. Within each industry/city,

[9] The sample size is between 75 and 125 for the destinations of Alberta, Ontario, and British Columbia. The sample size for the other destinations can be as small as 25. Hence the Manitoba/Saskatchewan, Atlantic, and Quebec values should be treated more cautiously.

FIGURE 9
Distribution of interprovincial top 1 percent movers by year and destination province

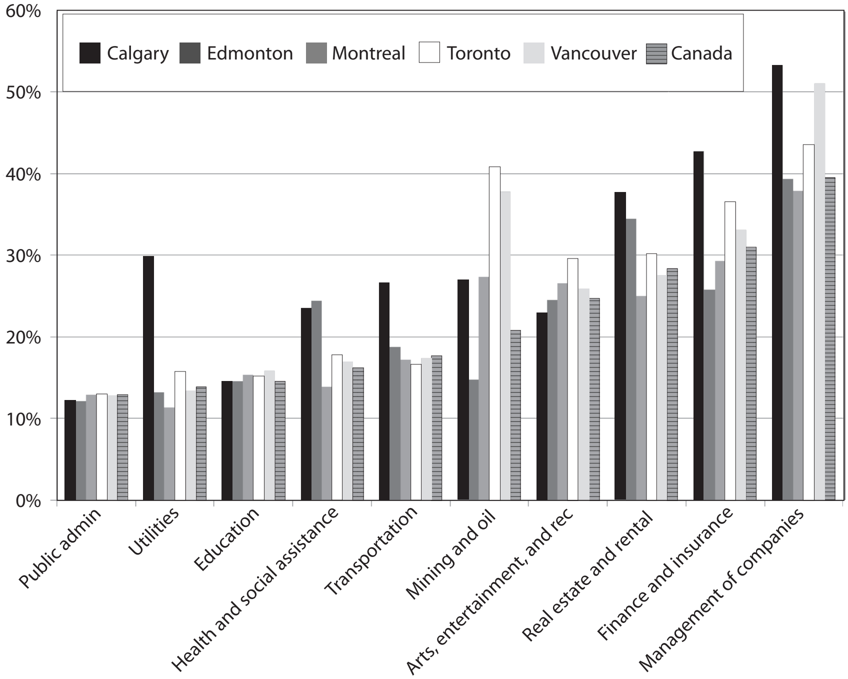


Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

Figure 10 presents the share of wages and salaries accruing to the top 5 percent. For example, the top 5 percent of all wage earners in the finance and insurance industry in Calgary earned over 40 percent of the wages in that industry in Calgary. Nationally, the top 5 percent of all wage earners in finance and insurance earned about 30 percent of all wages in that industry in Canada.

We can see that the top shares within public administration and education are comparatively low and similar geographically. This pattern is largely true as well for the utility and transportation industries, except for a Calgary spike, and for the health and social assistance industries, except for Calgary and Edmonton spikes. But for other industries, the pattern is more varied. There is typically a relatively large value for Calgary, except in the arts, entertainment, and recreation industry. Toronto has the largest mining and oil value, reflecting head offices there. But perhaps the most striking pattern is the overall differences across industry, with the share of wage income going to the top 5 percent earners varying from roughly 10 percent in public administration to 40 percent in finance and insurance and 50 percent in the management of companies.

FIGURE 10
Top 5 percent wage shares by selected industry by city, 2010



Source: Custom tabulations from the Statistics Canada Longitudinal Administrative Databank.

CONCLUSIONS

Given the importance of the role of cities in Canada's economic growth, as discussed for example in Courchene (2005), we have examined the surge in top income shares over the last 25 years from a city perspective. We find that the surge is largely urban, and in particular the surges in Calgary and Toronto contribute about half of the national surge (even though the top filers in these two cities comprise only about 20 percent of all Canadian tax filers, and Toronto and Calgary are home to about 37 percent of filers in the national top 1 percent). Our exploratory analysis is consistent with the view that the finance and insurance industry and the management of companies industry are particularly important components of the surge, but unfortunately we do not have occupation data to study the surge through that lens (as Bakija, Cole, and Heim 2012 do for the United States and Murphy, Finnie, and Wolfson 1994 do for Ontario).

We also find that the interprovincial migration rate of the top 1 percent is lower than the overall rate and that both rates have been falling rather than rising. While Alberta's share of top 1 percent interprovincial migration has been rising, the rise is not dramatic, and the rise associated with the introduction of the flat tax is small.

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IMMIGRANT EARNINGS MOBILITY BY IMMIGRANT ADMISSION CATEGORY IN CANADA

MICHAEL G. ABBOTT AND CHARLES M. BEACH

INTRODUCTION

This study analyzes patterns of earnings mobility of immigrants to Canada. The novel feature of the empirical analysis is the use of transition matrices to characterize how the earnings of immigrants change over the first ten years after their landing in Canada. That is, we divide the initial full-year earnings of immigrants into six separate earnings categories and then examine what happens to the real earnings of immigrant workers within each of these categories by the end of the ten-year transition period. We also examine how immigrants' earnings change over different regions of the immigrants' earnings distribution. This disaggregated or distributional approach thus complements the more

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conventional empirical approach to immigrant earnings adjustment of looking at how immigrants' mean earnings change the longer immigrants remain working in Canada. We examine what fractions of immigrant workers within each earnings category move up or down the immigrant earnings distribution over an immigrant-landing cohort's first ten years in the Canadian labour market.

Our empirical analysis makes use of the large Immigration Database (IMDB) of immigrant landings in Canada that follows immigrants' annual income tax filings. The immigrants are divided into four major admission categories: skill-evaluated principal applicants or "independent economic immigrants," accompanying family members or "other economic immigrants," family class immigrants, and refugees. We examine the relative economic or earnings success of these different policy categories of Canadian immigrants (separately for male and female immigrants). In this study we focus on the cohort of immigrants who landed in Canada in the year 1994, although we also provide some summary results for the earlier 1982 and 1988 landing cohorts.

Examination of immigrant earnings mobility is of interest for a number of reasons. First, the real earnings of immigrants to Canada have been slipping over recent decades, so there is social concern about decreasing economic well-being of immigrants and possibly reduced economic opportunities available to more recent immigrants coming to Canada, and hence about the ability of Canada to attract desirable immigrants. Not only are mean or median earnings outcomes of interest, but economic opportunity is also reflected in the mobility of immigrants' earnings and their experience in getting ahead in the Canadian labour market. High degrees of upward earnings mobility may indicate increasing opportunities for economic advancement, whereas low degrees of upward mobility may reflect limited or deteriorating opportunities for economic advancement. Second, Canada is in the midst of major changes in its immigration policy and any additional evidence on immigrant economic outcomes can help inform such changes. One key aspect of immigration policy is the relative importance it places on economic class versus non-economic class immigrants. Improving Canadian immigration policy can help Canada to better compete internationally for desirable immigrants, and to better address the oncoming need to replace retiring baby boomers and the attendant loss of human capital from the Canadian economy.

Accordingly, this chapter has several objectives. For the first time in the immigrant earnings adjustment literature – to the authors' knowledge – this study makes use of a disaggregated transition matrix approach to examine earnings mobility patterns or signatures (both up and down) across different regions of the immigrant earnings distribution. It also aggregates across these different regions to capture summary measures of immigrant earnings mobility as a whole, again both upward and downward. We then disaggregate this immigrant earnings mobility signature by four major immigrant admission categories in order to better inform immigration policy in Canada.

This study thus makes several contributions to the literature on immigrants' post-landing earnings patterns in a new host country (Canada in this case). It offers a novel empirical framework for the study of immigrant earnings adjustment and compares immigrant earnings mobility patterns (over their first ten years after landing in Canada) across major immigrant admission categories. The study thus provides a framework for a similar analysis of specific immigration programs.

The chapter proceeds as follows. In the next section, we describe the data source for the study and the construction of the estimation samples used in the empirical analysis. In doing so, we also define the different immigrant admission categories that are the focus of the study. The three sections that follow outline the transition matrix approach to characterizing earnings mobility and examine basic immigrant mobility patterns and earnings mobility differences across the four immigrant admission categories. We then combine results for the three landing cohorts for 1982, 1988, and 1994 in terms of descriptive regressions to identify the net differences in earnings mobility across the different immigrant admission categories. Finally, we discuss possible implications of the findings for Canadian immigration policy.

DATA SOURCE AND IMMIGRANT ANALYSIS SAMPLES

Data source and immigrant admission categories

This study is based on individual microdata from the longitudinal Immigration Database of Citizenship and Immigration Canada (CIC). This database contains two broad categories of variables. (For a more detailed description of the IMDB database, see Abbott 2003.) The first is each immigrant's landing characteristics obtained from landing documents. These characteristics are unchanged for each immigrant throughout the post-landing period. Among the landing characteristics the IMDB contains for each immigrant are admission category, gender, year of birth, age at time of landing, and year of landing. The second category of variables in the IMDB comes from personal income tax returns and includes immigrants' annual earnings, place of residence, and marital status. Unlike immigrants' landing characteristics, these variables can and do change year by year for each immigrant after landing.

The principal outcome variable of this study is the level of real annual wage and salary earnings from paid employment[1] for each immigrant in

[1] All earnings data in this study are earnings from paid employment only, and therefore do not include net self-employment income. We also exclude business

each of the first ten full post-landing calendar years for which the immigrant filed a personal income tax return. To convert annual nominal earnings measured in current dollars into *real* annual earnings, we deflated nominal earnings by the value of the All-Items Consumer Price Index (CPI) for that year, re-based to 2004; all annual earnings figures in this chapter are thus expressed in terms of constant (inflation-adjusted) 2004 dollars.[2] For the 1994 landing cohort in the IMDB database, we assembled income tax data on each immigrant's annual wage and salary earnings in the year of his or her landing in Canada and in each of the ten calendar years that immediately followed the landing year. For the 1994 landing cohort, the first post-landing year is 1995, and the tenth post-landing year is 2004. The duration of Canadian residence is measured by years since landing (YSL), which varies from one for the first full post-landing year to ten for the tenth post-landing year.

The 1994 cohort landed as recovery from the early 1990s recession was strengthening, but the last three or four years of its first post-landing decade coincided with the economic slowdown of the early 2000s in Canada (which, unlike the United States, did not officially experience a recession following the IT bust of 1999). Also, over the 1985–1993 period, the total level of annual immigration to Canada rose dramatically, from a low of 84,300 in 1985 to a high of 256,700 in 1993, an increase of about 205 percent. The number of *economic* immigrants landed increased by 305 percent, from 26,100 in 1985 to 105,700 in 1993. The total level of immigration was kept relatively high throughout the early 1990s recession and the ensuing slow recovery from that recession.

A major limitation of the IMDB is that it does not contain data on non-immigrants. We therefore are unable in this study to directly compare the annual earnings distributions of immigrants and non-immigrants in Canada over a common period of time.

In order to operationally define the major admission categories in which we are interested, we make use of the IMCAT codes used by CIC to designate each immigrant's admission class in the IMDB; this classification is presented in detail in Abbott and Beach (2013). The present study includes the following four major admission categories:

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class immigrants, for whom self-employment income would obviously be important. Business class immigrants certainly warrant further investigation, but the current study is restricted to assembling evidence on the wage and salary earnings of immigrants in paid employment. Paid workers constitute the vast majority of employed immigrants.

[2]The IMDB does not contain information on immigrants' weeks worked per year, hours worked per week, or full-time versus part-time status; it is therefore not possible to measure immigrants' annual hours of work or their average hourly or weekly earnings.

1. *Independent economic immigrants* are skilled-assessed principal applicants who were landed from abroad under no special programs. Over the time period covered by our analysis, these admissions occurred under the Federal Skilled Worker Program.
2. *Other economic immigrants* include both skilled-worker principal applicants who were landed from within Canada or who were assessed under some special program, and the spouses and dependants of all skilled-worker principal applicants. The spouses and dependants are by far the larger group.
3. *Family class immigrants* include all immigrants landed in the family class category.
4. *Refugee immigrants* include all government-assisted refugees, privately sponsored refugees, landed-in-Canada refugees, and refugee dependants.

Analysis samples used in the study

The analysis sample for this study was selected in two stages. In the first stage, a cohort master file was selected of all immigrants in the 1994 landing cohort who were 20–54 years of age at time of landing, who filed at least one personal income tax return during the first 11 tax years following their landing in Canada (including the year of landing and the first ten post-landing years), and whose person-year records included no missing or invalid values for the key variables of this study. The resulting total number of immigrants in the IMDB master file is 102,335 for the 1994 landing cohort. In the second stage, the actual analysis sample was further restricted to include only the person-year records of those immigrants in the four admission categories defined above whose real annual wage and salary earnings in their first and tenth calendar years were at least $1,000 (in 2004 dollars).[3]

There are therefore several reasons why some immigrants may be excluded from our analysis sample. The sample inclusion criteria we adopt exclude immigrants who did not file a Canadian personal income tax return in their first and tenth full calendar post-landing years; therefore immigrants who leave Canada for any reason following landing and cease filing Canadian personal income tax returns are excluded. These immigrants would include return migrants – immigrants who, subsequent to arriving in Canada, decided to return to their country of origin (perhaps because of a lack of economic success in Canada), and onward

[3]The reason for this minimum real annual earnings cutoff is to exclude those immigrants with only a weak, occasional, or intermittent attachment to the employed labour force. An investigation of immigrant movements into and out of employment would be worthwhile, but is beyond the scope of the current study.

migrants – immigrants who move on to third countries, principally the United States, often in search of better economic opportunities. There are good reasons to think that such sample attrition is non-random across immigrants, but a detailed analysis of it would constitute a separate study. Abbott and Beach (2013) find that about 20 percent of the immigrants in the cohort's master file were not observed in their tenth post-landing year. Of this 20 percent, some immigrants may have left Canada prior to the last year of their cohort's first post-landing decade, while others were still resident in Canada but simply did not file a Canadian income tax return for that tenth post-landing year.

The selection criteria also exclude from the analysis sample those immigrants who filed an income tax return on which they reported positive wage and salary earnings below the minimum real annual earnings cutoff of $1,000 in 2004 dollars. The proportion of all male immigrants with positive annual earnings whose real earnings were less than the minimum earnings cutoff ranged between 3.9 and 5.5 percent for the 1994 landing cohort. The proportion of all female immigrants so excluded ranged between 7.1 and 14.3 percent. Our sample inclusion criteria thus involve some censoring of immigrants with very low real annual earnings; however, the criteria's intent is purposely to limit the analysis to those immigrants who had a strong attachment to the labour market for paid employment.

A TRANSITION MATRIX APPROACH

Earnings transition matrices

Our approach to measuring immigrant earnings mobility is based on the transition matrix. Implementation of this approach consists of two main elements: the transition matrix itself, which provides disaggregated information on individuals' earnings mobility within an earnings distribution over a specified interval of time; and a set of summary statistics computed from the transition matrix that provide aggregate information on various dimensions of individual earnings mobility.

A *transition matrix* is a two-dimensional array that shows how individual workers change their position among ordered earnings categories over some period of time. That is, it shows how workers initially in several ordered earnings categories move among these categories over time (Atkinson, Bourguignon, and Morrisson 1992). For example, consider an earnings transition matrix that displays individual transitions among K earnings categories between an initial year t and a subsequent year t+s over some time interval of s years. This transition matrix will have K rows and K columns. By convention, the earnings categories for the initial year t are arranged in ascending order (from lowest to highest) down the left-hand side of the array, and the earnings categories for subsequent year t+s are arranged in ascending order (from left to right) across the top of the array. The element in row i and column j of the transition matrix is the empirical probability that someone who started in earnings category i in year t will end up in earnings category j in year t+s – it is the proportion (or percentage) of workers in earnings category i in year t who are observed to be in earnings category j in year t+s. If the elements in each row of the transition matrix sum to 1 (or 100 in the case of percentages as used in this chapter), then the array is called a conditional transition matrix. This is what we use in the present study and is illustrated in Tables 1a and 1b for nine-year transition matrices (i.e., s = 9), with six earnings categories (i.e., K = 6), separately for male and female immigrants, in the 1994 landing cohort (i.e., for the ten years 1995–2004).

For any transition matrix, an exhaustive set of K ordered earnings categories needs to be identified. By convention there are two options available for partitioning an earnings distribution into categories. The first option is to define the earnings categories in terms of quantiles such as ten deciles or five quintiles. The second option is to define the earnings categories relative to the mean or median of the earnings distribution. We adopt a variant of the latter option used, for example, by Beach (2006). Specifically, we define six categories in relation to the median level of real annual earnings (separately for men and women) for the beginning year (t = 1995) and final year (t+s = 2004) in the transition interval in our analysis samples:

1. Less than 25 percent of the median (labelled as Very Low or VL)
2. 25–50 percent of the median (Low or LO)
3. 50–100 percent of the median (Low Middle or LM)
4. 100–150 percent of the median (High Middle or HM)
5. 150–200 percent of the median (High or HI)
6. Greater than 200 percent of the median (Very High or VH)

Note that the analysis samples include those workers with above-minimum reported earnings levels for just the two interval end years (years t and t+s); they need not have reported earnings for every year in the transition interval. The median real earnings levels used in these calculations and the proportions of all male and female immigrant workers observed in each of these earnings categories in the initial post-landing year of the 1994 immigrant landing cohort are provided in Abbott and Beach (2013, Tables A3 and A4).

The figures in the Table 1 transition matrices are readily interpretable. For example, among male immigrant earners in the 1994 landing cohort (Table 1a) who had earnings in the lowest earnings category (VL) in their first full year after landing (1995), 14.09 percent remained in this lowest earnings category nine years later in 2004 – and thus 85.91 percent moved up one or more earnings categories over the nine-year transition interval. The remaining percentages in the top row show that 13.18 percent moved up exactly one earnings category, 31.65 percent moved up by two categories, and so on, and indeed 8.20 percent managed to move up all the way from the lowest to the highest earnings category after nine years in Canada. Looking at the high middle (HM) earnings category in 1995, one can see that 37.31 percent of male immigrants in this earnings category experienced a drop of one earnings category after nine years, while 16.94 (= 10.40 + 6.54) percent saw their earnings go up by one or more categories. For female immigrants in Table 1b, 38.84 percent of 1994 arrivals who began working in the top earnings category in 1995 remained there after nine years, while 61.16 (= 100 − 38.84) percent saw their initial earnings decline by one or more earnings categories by 2004, the final year of their first post-landing decade in Canada. In general, the probabilities of moving up one or more categories are given by figures above the principal diagonal, and the probabilities of moving down the immigrant earnings distribution are given by figures below the principal diagonal.

TABLE 1a
Nine-year transition matrix for all male immigrant earners in the 1994 landing cohort, post-landing years one to ten (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**14.09**	13.18	31.65	21.57	11.30	8.20	100.0
LO 1995	11.54	**15.69**	36.34	20.14	8.31	7.97	100.0
LM 1995	8.95	14.20	**39.70**	23.15	8.47	5.54	100.0
HM 1995	5.70	9.24	37.31	**30.81**	10.40	6.54	100.0
HI 1995	3.82	6.36	21.99	35.94	**17.54**	14.36	100.0
VH 1995	2.23	3.19	8.80	16.18	18.26	**51.35**	100.0

N = 19,600

Average summary transition probabilities

Average probability of staying	=	28.20
Average probability of moving up/down	=	71.80
Prais mobility index	=	0.8616
Average probability of moving up	=	37.85
Average probability of moving down	=	33.95
Average net probability of moving up	=	3.902
Average upward jump	=	0.7590
Average downward jump	=	0.5529

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 1a).

TABLE 1b
Nine-year transition matrix for all female immigrant earners in the 1994 landing cohort, post-landing years one to ten (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**13.12**	15.26	26.79	21.86	10.41	12.56	100.0
LO 1995	11.42	**15.64**	31.61	22.23	9.88	9.22	100.0
LM 1995	10.56	17.79	**31.35**	22.95	9.25	8.10	100.0
HM 1995	10.02	12.46	33.11	**24.96**	10.12	9.32	100.0
HI 1995	5.74	8.24	26.53	31.14	**16.14**	12.22	100.0
VH 1995	3.82	4.82	12.26	19.90	20.35	**38.84**	100.0

N = 13,480

Average summary transition probabilities

Average probability of staying	=	23.34
Average probability of moving up/down	=	76.66
Prais mobility index	=	0.9199
Average probability of moving up	=	38.63
Average probability of moving down	=	38.03
Average net probability of moving up	=	0.6033
Average upward jump	=	0.8136
Average downward jump	=	0.6760

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 1b).

To repeat, note that these mobility figures all relate to *relative* earnings mobility (i.e., relative to what happens to all immigrants' median real earnings level over the nine-year transition interval). So if the median has risen over this period, a slip of one earnings category may well be consistent with an increase in the actual real earnings levels of workers in this earnings category, though such an increase would not be as rapid as the increase in the median real earnings level of all immigrants over the transition interval.

Summary mobility measures

This chapter also employs several summary measures of individual earnings mobility that have been developed in the income distribution literature. They include the following:

1. The immobility ratio or average probability of staying in the same earnings category, calculated as the average of the staying probabilities or diagonal elements in bold font in Tables 1a and 1b

2. The average mobility rate or average probability of moving one or more earnings categories, calculated as the average value of 100 minus the immobility ratio averaged across all six earnings categories
3. The average probability of moving *up* one or more earnings categories, calculated as the sum of the moving up probabilities (within a given row of the transition matrix) averaged across all six earnings categories
4. The average probability of moving *down* one or more earnings categories, calculated as the sum of the moving down probabilities (within a given row of the transition matrix) averaged across all six earnings categories
5. The Prais mobility index (explained below)
6. The average size of upward earnings jump, calculated as the weighted average (or expected value) of staying or of one or more upward category changes, then averaged across all six earnings category rows
7. The average size of downward earnings jump, calculated as the weighted average (or expected value) of staying or of one or more downward category changes, then averaged across all six earnings category rows

Obviously, the average mobility rate is the sum of the average probabilities of moving up and of moving down one or more earnings categories over the transition interval.

The Prais mobility index is one of the most widely used scalar measures of mobility. It can be computed as

$$M = \frac{K - tr(P)}{K - 1} \ ,$$

where K denotes the number of earnings categories (i.e., number of rows or columns) of the transition matrix P, and tr(P) denotes the trace of P (i.e., the sum of the empirical probabilities on the principal diagonal of P). Shorrocks (1978b) has shown that the Prais mobility index M exhibits several desirable properties. One of these is that $0 \leq M \leq 1$, where $M = 0$ corresponds to complete immobility and $M = 1$ corresponds to perfect mobility.

Note also the linear relationship between the average mobility rate (measure 2 above) and the Prais index (measure 5). The average mobility rate is

$$100 - [tr(P) \ / \ K].$$

For a given K, then, any factor affecting the elements of P will change the average mobility rate and the Prais index in an exact linear fashion.

These summary measures of mobility are displayed below the respective transition matrices of Tables 1a and 1b.

Mobility plays two distinct roles in this study. Overall measures of earnings mobility such as measures 1, 2, and 5 capture what the literature calls positional or reranking mobility, that is, the degree to which individuals change their relative rankings (either up or down) across earnings categories over a period of time. If everyone remained in the same earnings category they started off in, then observed cross-sectional earnings inequality would be indicative of long-run earnings status and of a highly stratified labour market with widely unequal earnings opportunities. If, on the other hand, overall earnings mobility is high so that everyone gets to experience times of low, middle, and high earnings levels over a period of time, then observed cross-sectional earnings inequality will be less indicative of long-run earnings status and there will be much greater opportunity to move around the earnings distribution. Thus overall measures of earnings mobility have a normative or social welfare aspect that tempers the degree of concern we place on observed changes in earnings inequality and on differences in economic opportunities available to different individuals in the labour market (Buchinsky and Hunt 1996; Hungerford 2011; Shorrocks 1978a).

The second role played by earnings mobility in this study may be referred to as directional mobility and is captured by measures 3, 4, 6, and 7. These measures look at separate upward movements within the immigrant earnings distribution or separate downward movements. They provide greater structural detail on the predominant direction of a given degree of overall earnings mobility, especially for various subgroups of the immigrant population. They can also be useful in raising policy flags about those groups who may be losing out over time, and can be helpful in interpreting various economic models and hypotheses concerning immigrant workers' earnings adjustment process following their landing in Canada.

BASIC IMMIGRANT MOBILITY PATTERNS

Positional or overall earnings mobility

The figures in Tables 1a and 1b show that the earnings of immigrants over a nine-year period are quite dynamic. Excepting the top earnings category, the probabilities of moving up or down one or more categories vary from 60.3 to 85.9 percent for male immigrants and from 68.7 to 86.9 percent for female immigrants. There is also a natural grouping of immigrant earnings categories into three groups: the bottom two categories (VL and LO), which manifest very high (largely upward) earnings mobility; the middle three categories (LM, HM, and HI), which display a lower degree of earnings mobility; and the very top category (VH), which exhibits very low (downward) mobility. For male immigrants, the average probability of moving declines with earnings from 85.1 percent for the bottom group, to 70.6 percent for middle earners, and to 48.6 percent for top earners. For female immigrants, the decline in mobility across earnings groups is similar: from 85.6 to 75.8 to 61.2 percent (Appendix Table A1).

Indeed, earnings mobility is somewhat higher for immigrants over their first decade in Canada than earnings mobility as a whole in the Canadian labour market. Eight-year earnings transition matrices for men and women as a whole in the Canadian labour market are found in Abbott and Beach (2013, Tables A5, A6, and A7) for 1982–90 and 1991–99, along with a matrix of 12-year transitions for men and women as a whole over 1982–94. Again, except for the top earnings category, the probabilities of moving up or down one or more categories averaged over the two eight-year intervals range from 60.8 to 83.7 percent for men and from 54.1 to 75.8 percent for women. If one again calculates the average probability of moving (up or down) for the above three earnings groupings for all workers, one can see that mobility also declines across earnings groups for workers as a whole in the Canadian labour market. For women, earnings mobility declines from 74.6 percent for the bottom group to 56.9 percent for the middle group, and to 35.0 percent for top earners. For all male workers in the labour market, mobility correspondingly declines from 81.8 percent to 63.4 percent and to 27.8 percent. That is, the degree of earnings mobility experienced by immigrants in their first decade in Canada compared to workers as a whole in the Canadian labour market is much greater among middle and top earners than among lower-earning workers in the earnings distribution. The mobility gap is also larger for women than for male earners in the labour market.

This greater degree of earnings mobility among immigrants than for earners as a whole is further supported by the summary measures of mobility in Table 2. The average Prais mobility index over nine years for male and female immigrants is 0.862 for males and 0.920 for females. Not only are these index values higher than those for both the eight-year transitions for all workers, but they also exceed the Prais mobility values for the 12-year transitions among all workers (M = 0.826 for men and 0.780 for women as a whole). A similar result is found for the average probability of moving either up or down one or more earnings categories: 71.8 percent for immigrant men and 76.7 percent for immigrant women over a nine-year transition period versus 68.9 percent for all male earners and 65.0 percent for all female earners over a 12-year period.

Directional earnings mobility patterns

A more distinctive aspect of immigrant earnings mobility, however, is that it incorporates a much greater likelihood of (relative) earnings decline than for workers as a whole in the Canadian labour market. Table 2 displays separately the average probabilities of moving up one or more earnings categories and average probabilities of moving down one or more categories for the immigrant transition matrices in Tables 1a and 1b and for workers as a whole in the Canadian labour market. For males, the average probability of moving up one or more earnings categories over the transition period is slightly lower for immigrants than for workers as a whole. But for both male and female immigrants, the average probability of moving down one or more categories is considerably greater than for workers as a whole in the Canadian labour market. As a consequence, the average *net* probability of moving up is dramatically lower for immigrants in the 1994 landing cohort – both male and female – than for earners as a whole in the Canadian labour market.

TABLE 2
Average probability of moving up and moving down and Prais index among immigrants and earners as a whole in Canada

	All workers 8-year transition 1982–90	*All workers 8-year transition 1991–99*	*All workers 12-year transition 1982–94*	*Immigrants 9-year transition 1995–04*
		Males		
Average probability of moving (%)	64.66	62.71	68.87	71.80
Prais index	0.776	0.753	0.826	0.862
Average probability of moving up (%)	46.33	44.08	49.24	37.85
Average probability of moving down (%)	18.33	18.63	19.63	33.95
Average net probability of moving up (%)	28.00	25.55	29.61	3.90
		Females		
Average probability of moving (%)	59.87	58.42	65.00	76.66
Prais index	0.718	0.701	0.780	0.920
Average probability of moving up (%)	37.48	35.61	43.27	38.63
Average probability of moving down (%)	22.39	22.81	21.73	38.03
Average net probability of moving up (%)	15.09	12.80	21.54	0.60

Sources: Tables 1a and 1b and Abbott and Beach (2013, Tables A5–A7).

Mobility patterns also differ over different regions of the immigrant earnings distribution. There is much greater mobility up out of the bottom end of the earnings distribution than down from the top end. Appendix Table A1 breaks down the summary mobility results in Table 2 into three earnings groups – bottom earners (earnings categories VL and LO), middle earners (LM, HM, and HI), and top earners (VH) – for the 1994 immigrant landing cohort and for the 1991–99 earnings transitions for earners as a whole in Canada. Not surprisingly, in all cases, the average probability of moving up declines from the bottom to the top earnings groups, while the average probability of moving down exhibits the reverse pattern. Now consider each of these directional mobility components separately. The average probability of moving up from the bottom group is somewhat higher among immigrants than among workers as a whole – more so for female than for male workers, while the average probability of moving up for the middle group is substantially lower among immigrants than for workers as a whole – more so for male than for female workers.

But the biggest differences in mobility between immigrant earners and all earners occur in their average probabilities of moving down one or more earnings categories. The average probability of moving down for both middle and top earners is much greater among immigrants in the 1994 landing cohort than among workers as a whole – more so for females than for males. Adding these two directional mobility effects (the probability of moving up and the probability of moving down), one finds that the average probability of moving either up or down is higher among immigrants than for workers as a whole for all earnings groups. But this broad pattern of greater earnings mobility among immigrants is driven largely by immigrants' much higher average probability of moving down the immigrant earnings distribution. Furthermore, when one subtracts the downward from the upward mobility measures to get a net dominant directional measure of earnings mobility, one obtains even stronger results. The average *net* probability of moving up is somewhat larger in a positive direction among immigrants (compared to workers as a whole) in the bottom earnings group. But the net probability of moving up one or more earnings categories is dramatically greater in a *negative* direction among immigrants (compared to all workers) over the middle and top earnings groups for both male and female workers in the Canadian labour market.

Differences in earnings mobility patterns between male and female immigrants

There are a number of differences in the earnings mobility patterns between male and female immigrants in Tables 1a, 1b, 2, and A1. The average probability of moving to a higher or lower earnings category and the Prais mobility index are both higher for female than for male immigrants, but are higher for males than for females among workers as a whole in the Canadian labour market. Thus the gap in earnings mobility between immigrants and workers as a whole is greater among female workers than among male workers across all earnings groups. Indeed the probability of moving is higher for female than for male immigrants in every earnings category, that is, in every row of Table 1b compared to Table 1a. In the very highest earnings category, the probability of staying is dramatically higher for male immigrants than for female immigrants. But this higher mobility among female immigrants is largely due to a higher average probability of moving down one or more earnings categories over the nine-year transition period. Consequently, the average net probability of moving up is markedly higher for male (3.90 percentage points) than for female (0.60 percentage points) immigrants. More specifically, the average probability of moving up is pretty similar between male and female immigrants across all three earnings groups, but the average probability of moving down is greater for female than for male immigrants in the middle and top earnings groups (Appendix Table A1).

The pattern of greater downward mobility for female immigrants than for male immigrants is broadly consistent with the "family earnings adjustment model" (Baker and Benjamin 1994; Beach and Worswick 1993). According to this model, shortly after arrival in Canada, the husband of an immigrant family – who will eventually become the major breadwinner of the household – invests time and effort acquiring new skills and training, including language training and extensive job search. Meanwhile, the wife gets a job, often at long hours for low pay and with little prospect of advancement, in order to help support the family while the husband becomes established in a job with higher pay and greater chances of advancement. As the husband becomes more experienced and better established in the Canadian labour market, the wife can choose to reduce her hours of work or withdraw entirely from the labour force in order to devote more time to family development and raising children. The result is that, over the immigrant family's first decade in Canada, the husband's earnings generally grow faster than the wife's, and the wife's annual earnings may actually decline once the husband's earnings have risen sufficiently.

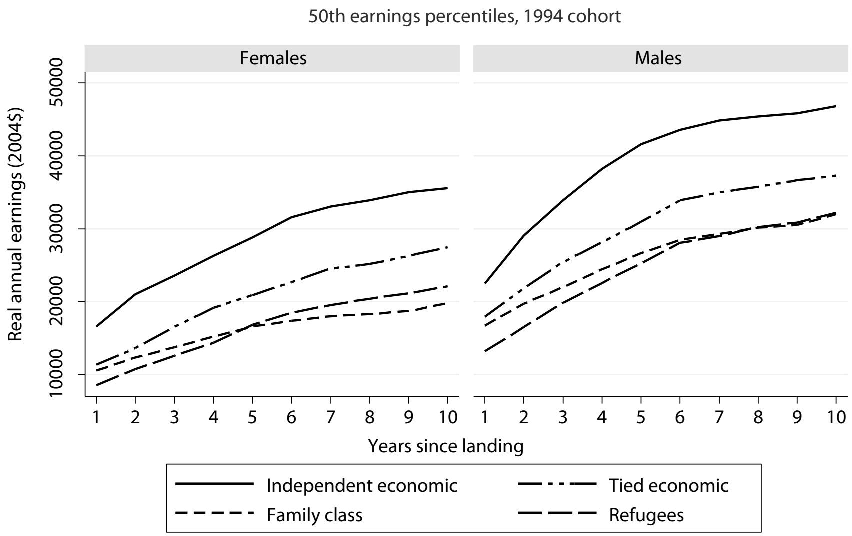
EARNINGS MOBILITY DIFFERENCES ACROSS IMMIGRANT ADMISSION CATEGORIES

Now consider evidence on differences in immigrant earnings mobility across the four broad immigrant admission categories: independent economic immigrants (i.e., principal applicants under the Federal Skilled Worker Program), other (or tied) economic immigrants (i.e., largely spouses and dependants accompanying principal applicant immigrants), family class immigrants, and refugee class immigrants. Independent economic immigrants in our sample have to pass the point-system screen and are admitted on the basis of their evaluated labour market skills. Immigrants in other categories are admitted for other reasons and hence may face more difficult adjustments getting ahead in the Canadian labour market. Over the past three decades, Canadian immigration policy has seen a distinct shift in favour of economic immigrants as opposed to family class immigrants and refugees, so it is of interest to investigate how well these different immigrant categories have performed in the Canadian labour market.

Differences in earnings levels across immigrant admission categories

Earnings dynamics can be viewed as a supplement to immigrant earnings trajectories following the immigrants' landing in Canada. Table A2 presents evidence for male and female immigrants in the 1994 landing cohort on average annual earnings (in real 2004 dollars) and on average growth rates of real earnings over immigrants' first ten years in Canada. The actual year-to-year median (50th percentile) annual earnings trajectories over the post-landing decade for the four different admission categories are illustrated in Figure 1.

FIGURE 1
Median real annual earnings of immigrants in the ten-year period following landing, 1994 landing cohort, by sex and admission category



Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2011a).

It is immediately apparent from Figure 1 that, for both male and female immigrants, independent economic immigrants (all of whom were principal applicants who were skill-assessed under the point system) consistently had by far the highest median earnings levels in all ten years of their first post-landing decade in Canada. For the 1994 landing cohort, the median earnings of male independent economic immigrants were on average 34.9 percent higher than the ten-year average of median earnings for males as a whole across the four admission categories, while the median earnings of female independent economic immigrants were on average 55.2 percent higher than the ten-year average of female median earnings as a whole across the four admission categories. Evidently immigrant skills pay off in the Canadian labour market. With the data available to this study, however, we cannot investigate whether the substantially higher median earnings of independent economic immigrants are attributable to their having higher educational or skill levels than immigrants in other admission categories, or whether they simply realize higher returns on their skill attributes than do other categories of immigrants (perhaps because they spend more time in paid employment). Beach, Green, and Worswick (2008), however, document that independent economic immigrants do in fact have substantially higher reported skill levels (in the form of higher levels of educational attainment and a higher incidence of official language fluency in either English or French) than do immigrants in other admission categories.

Other economic immigrants, both male and female, ranked second in median earnings levels in all ten post-landing years for the 1994 landing cohort. Recall that other economic immigrants consist largely of the spouses and dependants of skilled worker principal applicants. Sweetman and Warman (2010) also find that the earnings of the spouses of skilled-worker principal applicants are considerably below those of the principal applicants with whom they are landed in Canada. Family class immigrants ranked third or fourth among admission categories in terms of median earnings levels. In fact, female family class immigrants ranked lowest in terms of median earnings levels. Again for the 1994 landing cohort, the ten-year average of median earnings levels for males in the family class category was 10.5 percent below the ten-year average of median earnings levels for all male immigrants in the four admission categories, while the ten-year average of median earnings levels for females in the family class category was 12.6 percent below the ten-year average of median earnings levels for all female immigrants in the four admission categories. Finally, for refugee immigrants, the ten-year average of median earnings levels over the period 1995–2004 was 14.7 percent lower for males in the refugee category, and 10.4 percent lower for females in the refugee category, than for males and females overall across the four admission categories of the 1994 cohort.

The above findings reveal some notable differences among immigrants in relative median earnings levels by gender. For example, female family class immigrants had the lowest median earnings among all 1994 female immigrants, whereas male refugees had the lowest median earnings among all 1994 male immigrants in the four admission categories. But despite such differences, the similarities in relative median earnings levels between male and female immigrants and across landing cohorts are at least as striking. Among both male and female immigrants, independent economic immigrants had, by a considerable margin, the highest median earnings in all ten post-landing years, while other economic immigrants had the second-highest median earnings in all ten post-landing years for the 1994 landing cohort.

In terms of the ten-year growth rates of median real earnings levels for the four admission categories, Table A2 indicates that refugee immigrants experienced the fastest growth in earnings among both male and female immigrants in the 1994 landing cohort – although from the lowest base level of earnings – while family class immigrants experienced the slowest earnings growth. Independent economic immigrants and other economic class immigrants exhibited intermediate rates of average earnings growth, although these were still higher than the average earnings growth rates of immigrants as a whole across all four admission categories.[4]

Differences in earnings mobility across immigrant admission categories

Now turn to earnings mobility differences across the four immigrant admission categories for the 1994 immigrant landing cohort. One can think of earnings mobility (provided by a transition matrix) as the relative change in earnings across the initial-year earnings distribution about the median earnings profiles illustrated in Figure 1. An analysis of earnings mobility provides a richness of distributional change away from the median alone, and it shows how heterogeneous the pattern of earnings outcomes can be around the median. Detailed transition matrices for the four immigrant admission categories are presented in Appendix Tables A3–A6 for the 1994 landing cohort.

[4]It may appear that, since the average growth rate of earnings of other economic female immigrants exceeds that of independent economic male immigrants, the family earnings adjustment model does not hold in these results. But the results in Table A2 are all for *median* earnings. If one looks at the real earnings growth rates across the different percentiles of the immigrant earnings distributions, one sees that lower-paid female immigrants do indeed have significantly slower earnings growth rates than virtually all male immigrant earners (Abbott and Beach 2011b, Figures B1 and B2).

One can see immediately that – for both male and female immigrants – independent economic immigrants are least likely to remain at the bottom end of the earnings distribution; that is, the probabilities of their staying in their initial-year very low (VL) earnings category is only 10.87 percent for male and 3.47 percent for female independent economic immigrants. On the other hand, independent economic immigrants are the most likely to remain among the top earners: the probabilities of them staying in their initial-year very high (VH) earnings class is 60.34 percent for males and 48.51 percent for females. At the other end of the spectrum, among male immigrants, the family class arrivals are the most likely to remain in the bottom earnings category (with a staying probability of 16.12 percent), while among female immigrants, it is those in the refugee category who are most likely to remain in the lowest earnings category (with a staying probability of 16.67 percent).

The key earnings mobility information from Tables A3–A6 is more efficiently summarized in Table 3. In terms of overall earnings mobility (as measured by the average probability of moving and the Prais index) among the four admission categories, there are considerable differences between male and female immigrants in the 1994 landing cohort. Among female immigrants, overall earnings mobility was greatest for the independent economic category and least among refugees. However, among male immigrants, overall earnings mobility was greatest for the refugee class and least among family class immigrants, while independent economic immigrants displayed relatively low overall mobility. Except for the refugee category, the earnings mobility of female immigrants exceeded that of male immigrants – as was the case for immigrants as a whole (Tables 1a and 1b).

In terms of variation across the four admission categories in directional earnings mobility (as measured by the remaining summary statistics in Table 3), there is considerable similarity between male and female immigrants in the 1994 landing cohort. The single most consistent finding here is that – for both males and females – independent economic immigrants exhibited the greatest upward earnings mobility and the least downward earnings mobility over their first ten years in Canada, and hence had by far the highest average *net* probability of moving up to a higher earnings category over their first post-landing decade in Canada. Independent economic immigrants also had the largest upward earnings jumps and the smallest downward earnings jumps among the four admission categories. In contrast, family class immigrants – both men and women – had the lowest upward earnings mobility among the four admission categories and among the highest downward earnings mobility; they thus had substantially the lowest (indeed negative) average *net* probability of moving up one or more earnings categories within the immigrant earnings distribution. Family class immigrants also had the smallest upward earnings jump for both males and females, and the largest (for females)

TABLE 3
Summary earnings mobility measures by immigrant admission category for nine-year transition matrices, 1994 landing cohort (relative ranks in parentheses)

	Independent economic	*Other economic*	*Family class*	*Refugee class*
		Males		
Average probability of moving (%)	73.62 (3)	74.09 (2)	73.00 (4)	77.51 (1)
Prais index	0.8834 (3)	0.8891 (2)	0.8760 (4)	0.9301 (1)
Average probability of moving up (%)	45.18 (1)	40.26 (2)	33.61 (4)	36.96 (3)
Average probability of moving down (%)	28.44 (4)	33.84 (3)	39.39 (2)	40.55 (1)
Average net probability of moving up (%)	16.73 (1)	6.42 (2)	-5.77 (4)	-3.59 (3)
Average upward jump	1.0028 (1)	0.8332 (2)	0.6061 (4)	0.7480 (3)
Average downward jump	0.4579 (4)	0.5774 (3)	0.6474 (2)	0.7393 (1)
		Females		
Average probability of moving (%)	78.16 (1)	76.82 (3)	78.02 (2)	76.71 (4)
Prais index	0.9380 (1)	0.9218 (3)	0.9362 (2)	0.9205 (4)
Average probability of moving up (%)	49.76 (1)	43.56 (2)	34.21 (4)	40.27 (3)
Average probability of moving down (%)	28.40 (4)	33.26 (3)	43.82 (1)	36.44 (2)
Average net probability of moving up (%)	21.36 (1)	10.30 (2)	-9.61 (4)	3.84 (3)
Average upward jump	1.1782 (1)	0.9939 (2)	0.6556 (4)	0.8420 (3)
Average downward jump	0.4951 (4)	0.5774 (3)	0.7984 (1)	0.7260 (2)

Source: Tables A3–A6.

and second largest (for males) downward earnings jump. Immigrants in the refugee category were generally less likely to move up to a higher earnings category than independent economic immigrants, but were more likely to move up to a higher earnings category than family class immigrants of the same sex. With respect to the *net* probability of moving up to a higher earnings category, refugee immigrants were always far less likely to move up than independent economic immigrants, but were typically more likely to move up than family class immigrants of the same sex. Again, directional earnings mobility was generally greater for female immigrants than for male immigrants across all four admission categories (with some exceptions in the case of family class immigrants).

REGRESSION ANALYSIS OF IMMIGRANT EARNINGS MOBILITY PATTERNS

Descriptive regression specifications

The evidence presented in this chapter has focused exclusively on the 1994 landing cohort of immigrants to Canada. In a longer working paper (Abbott and Beach 2013), we also provide results for two earlier landing cohorts for the years 1982 and 1988. The analysis samples for the 1982, 1988, and 1994 cohorts are similarly defined, and we also follow the earlier cohort members for ten years (so that similar nine-year transition matrices could be constructed). The 1994 cohort is the only one of the three cohorts whose first ten years in the Canadian labour market was not interrupted by a major economic recession. The 1988 landing cohort faced the very severe 1990–91 recession shortly after arrival in Canada, while the 1982 cohort experienced it at the end of their first decade in Canada. Although total inflows of immigrants and the proportions arriving in the different major admission categories changed over the 1982–1994 period, there were no major changes in the definitions of these admission categories over this period. In this section, we pool the aggregate earnings mobility information from these three landing cohorts in order to examine common underlying earnings mobility patterns, especially with respect to differences among the four major immigrant admission categories.

All of the empirical results on immigrants' earnings mobility patterns discussed above refer to *gross* mobility effects of some characteristic such as gender, immigrant admission category, or landing cohort. But it would also be interesting to obtain estimates of the corresponding *net* effects of each of these characteristics (i.e., controlling for all three characteristics simultaneously). Since we are unable to pool the raw data across landing cohorts and examine individual microdata on movements in individual earnings across earnings categories, we instead analyze the summary earnings mobility statistics already provided in this chapter. To do so, we make use of a descriptive or characteristics regression technique where various summary mobility measures are taken as dependent variables and sets of dummy variables are used to indicate each of the aforementioned immigrant characteristics.

Accordingly, for the nine-year transition matrices, we have summary mobility measures for two gender groups, four admission categories, and three landing cohorts, that is, for 2x4x3 = 24 observations. We then estimate a linear regression model of the form:

$$MM_i = \beta_0 + \beta_1 DSEX_i + \beta_2 D82_i + \beta_3 D88_i + \beta_4 DOE_i + \beta_5 DFC_i + \beta_6 DRC_i + u_i \quad (1)$$

where MM is some summary earnings mobility measure (such as the average probability of moving up or down one or more earnings categories); DSEX is a dummy variable defined to equal 1 for female observations and 0 for male observations; D82 and D88 are dummy indicator variables identifying the 1982 and 1988 immigrant landing cohorts; DOE, DFC, and DRC are dummy indicator variables corresponding respectively to the other economic, the family class, and the refugee class admission categories; u_i is an unobserved random error term; and observations $i = 1, ..., 24$. The composite default category consists of male immigrants in the 1994 landing cohort who were landed in Canada as independent economic immigrants.

In our 2013 working paper, we also provide transition matrix results for non-overlapping pairs of four-year transitions for each immigrant landing cohort. For the 1994 landing cohort, for example, a complete set of transition matrices are computed for the two four-year intervals 1995–1999 and 2000–2004, that is, for the transition intervals from post-landing years one to five and from post-landing years six to ten. These shorter-interval transition matrices are of interest to investigate whether – as suggested by Chiswick (1978), for example – the rate of immigrant earnings adjustment decreases as years since landing in Canada increase. The expectation, based largely on a human capital investment perspective, is that the rate of relative earnings adjustment is quite rapid in the early years after entering the Canadian labour market as new skills (such as fluency in English or French, knowledge of local workplace organization and practices, and an expanding network of Canadian friends and acquaintances) are quickly acquired. But the pace of earnings adjustment slows as does the rate of host-country skill acquisition, so that the degree of earnings mobility over the last five years of immigrants' first post-landing decade in Canada should be lower than earnings mobility over the first five post-landing years.

In the case of the four-year transition matrices, there is therefore the additional dimension of years-since-landing (i.e., over the first five-year period from post-landing years one to five or over the second five-year period from post-landing years six to ten). If we pool the observations for these two sets of four-year transition intervals, we have for each four-year summary mobility measure 48 observations (for two gender groups, four admission categories, three landing cohorts, and two four-year transition intervals). To distinguish between the two four-year transition intervals, one additional regressor is added to regression equation (1), specifically a dummy indicator variable D610 for observations occurring in the later six- to ten-year transition interval. The regression equation for each summary mobility measure computed from the four-year transition matrices thus takes the form:

$$MM_i = \beta_0 + \beta_1 DSEX_i + \beta_2 D82_i + \beta_3 D88_i + \beta_4 DOE_i + \beta_5 DFC_i + \beta_6 DRC_i + \beta_7 D610_i + u_i . \qquad (2)$$

Finally, in the 2013 paper we also compute three sets of one-year transition matrices for post-landing years one to two, five to six, and nine to ten. To distinguish among these three one-year transition intervals, we define the dummy variables D56 and D910 to equal one for the years five to six and years nine to ten transitions, respectively, and zero otherwise. For each one-year summary mobility measure, the descriptive regression equation is similar in specification to equation (2) but with the dummy variables D56 and D910 included as regressors in place of the D610 dummy variable. For each one-year summary mobility measure regression there is a total of 72 observations (for two gender groups, four admission categories, three landing cohorts, and three one-year transition intervals, i.e., for 2x4x3x3 = 72 observations).

Regression results

The characteristics regression results for the nine-year transition matrices are presented in Table 4. The various summary mobility measures are arrayed across the top of the table, and the major characteristics of each measure are listed down the left-hand margin. Several general results are immediately apparent from Table 4.

First, female immigrants experience statistically significantly greater earnings mobility than do male immigrants. Their average probability of moving up or down is higher by 2.1 percentage points, their average probability of moving up one or more earnings categories is higher by 2.9 percentage points, and their average *net* probability of moving up is higher by almost 3.8 percentage points. Interestingly, there is no statistically significant difference between female and male immigrants in their average probability of moving down over the nine-year transition interval. As we explain earlier in this chapter, the higher overall earnings mobility of female immigrants in the 1994 cohort is due to their higher average probability of moving down one or more earnings categories. But this does not appear to be the case when the summary mobility measures are pooled over all three landing cohorts. Evidently, immigrants in the 1994 cohort experienced somewhat different earnings mobility outcomes than their peers in the two 1980s landing cohorts.

Second, among the four immigrant admission categories, independent economic immigrants (the default admission category in Table 4) exhibit a statistically significant, higher average probability of moving up (by an

TABLE 4
Regression-adjusted effects of major immigrant characteristics on summary earnings mobility measures for the nine-year transition matrices for the 1982, 1988, and 1994 immigrant landing cohorts

Characteristics	*Probability of moving up or down*	*Prais index*	*Probability of moving up*	*Probability of moving down*	*Net probability of moving up*
Female	2.085 (3.38)	0.025 (3.38)	2.938 (3.13)	-0.854 (-0.79)	3.792 (1.97)
1982 landing cohort	-1.404 (-1.86)	-0.017 (-1.86)	-4.748 (-4.13)	3.346 (2.52)	-8.094 (-3.42)
1988 landing cohort	-5.096 (-6.74)	-0.061 (-6.74)	-4.141 (-3.60)	-0.955 (-0.72)	-3.186 (-1.35)
Other economic	1.884 (2.16)	0.023 (2.16)	-4.144 (-3.12)	6.028 (3.94)	-10.172 (-3.73)
Family class	1.106 (1.27)	0.013 (1.27)	-8.859 (-6.68)	9.966 (6.51)	-18.824 (-6.90)
Refugee class	3.248 (3.72)	0.039 (3.72)	-4.780 (-3.60)	8.026 (5.24)	-12.806 (-4.69)
N	24	24	24	24	24
R-sq	0.8144	0.8144	0.8149	0.7789	0.7938
ANOVA F(6, 17)	12.44	12.44	12.47	9.98	10.91
p-value of F	0.0000	0.0000	0.0000	0.0001	0.0000

Notes: Intercept coefficients are included in all OLS regression equations, but are not reported. Figures in parentheses below the OLS coefficient estimates are sample values of the t-statistics, which are computed using the conventional OLS standard errors of the coefficient estimates.
Source: Authors' calculations.

average of 5.9 percentage points),[5] a lower average probability of moving down (by an average of 8.0 percentage points), and a much higher *net* average probability of moving up (by an average of 13.9 percentage points). Notably, refugee class immigrants – not independent economic immigrants – display the greatest overall earnings mobility. One can therefore characterize independent economic immigrants as demonstrating the greatest degree of upward earnings mobility (i.e., significantly greater relative earnings advancement) among the four major immigrant

[5]Calculated by taking the difference between the respective regression coefficient and the average of the other three immigrant class coefficients (including zero for the default category).

admission categories over their first decade in Canada. Third, the family class of immigrants is at the other end of the mobility spectrum: they have the lowest degree of upward mobility (by an average of 5.9 percentage points), the highest degree of downward earnings mobility (by an average of 5.3 percentage points), and hence by far the smallest *net* average probability of moving up one or more earnings categories (by an average of 11.2 percentage points). The overall (positional) earnings mobility of family class immigrants is not significantly different statistically from that of independent economic immigrants, and hence is relatively low as well. Fourth, despite having the highest degree of overall earnings mobility, refugee immigrants exhibit only middling degrees of directional earnings mobility; but compared to independent economic immigrants, refugees display a significantly lower average probability of moving up (by 4.8 percentage points), a significantly higher average probability of moving down (by 8.0 percentage points), and thus a significantly lower *net* average probability of moving up (by 12.8 percentage points). Other economic immigrants are middle of the pack on all summary measures of earnings mobility, both overall and directional.

Finally, the two landing cohort dummies in Table 4 (for the 1982 and 1988 landing cohorts) have negative coefficient estimates for the probability of moving up or down and for the Prais mobility index, though only the coefficient estimates for the 1988 cohort are individually statistically significant. The lower overall immigrant earnings mobility implied by the negative coefficient estimates for the 1988 landing cohort dummy variable in the regressions for the probability of moving and the Prais index quite possibly reflect the severe 1990–91 recession in Canada, which occurred early in the 1988 cohort's first post-landing decade. The average probability of moving (either up or down by one or more earnings categories) is 5.1 percentage points lower for the 1988 landing cohort than for the 1994 cohort, while the average probability of moving up is 4.1 percentage points lower. Although the average probability of moving down is 1.0 percentage point lower for the 1988 cohort than for the 1994 cohort and the average *net* probability of moving up is 3.2 percentage points lower, neither of these differences is statistically significant. These findings suggest that a period of severe recession early in an immigrant cohort's first post-landing decade has the effect of reducing overall immigrant earnings mobility by reducing the probability of upward earnings mobility, that is, by limiting opportunities for upward relative earnings advancement.

Table 5 presents a similar set of descriptive regression results for the earnings mobility measures computed from the two sets of four-year transition matrices from post-landing years one to five and six to ten. The last row of coefficient estimates for the post-landing years six to ten dummy variable indicates very strongly that earnings mobility does indeed decline significantly with years since landing (YSL), both in terms of overall earnings mobility and in terms of upward and downward earnings mobility. That is, the magnitude of immigrants' relative earnings changes attenuates significantly over their first ten years of Canadian residence. Interestingly, the reduction in downward mobility exceeds the reduction in upward mobility, with the result that the *net* probability of moving up one or more earnings categories is considerably higher (by 4.8 percentage points) for the later four-year transition interval from post-landing years six to ten than for the earlier four-year transition interval from post-landing years one to five.

TABLE 5
Regression-adjusted effects of major immigrant characteristics on summary earnings mobility measures for the four-year transition matrices for the 1982, 1988, and 1994 immigrant landing cohorts

Characteristics	*Probability of moving up or down*	*Prais index*	*Probability of moving up*	*Probability of moving down*	*Net probability of moving up*
Female	3.205 (4.84)	0.038 (4.84)	3.256 (5.44)	-0.053 (-0.07)	3.309 (2.65)
1982 landing cohort	0.587 (0.72)	0.007 (0.72)	-1.626 (-2.22)	2.213 (2.25)	-3.838 (-2.51)
1988 landing cohort	-3.274 (-4.04)	-0.039 (-4.04)	-2.511 (-3.42)	-0.764 (-0.78)	-1.747 (-1.14)
Other economic	0.279 (0.30)	0.003 (0.30)	-4.336 (-5.12)	4.617 (4.07)	-8.953 (-5.06)
Family class	0.372 (0.40)	0.004 (0.40)	-7.831 (-9.25)	8.203 (7.23)	-16.035 (-9.06)
Refugee class	3.386 (3.62)	0.041 (3.62)	-3.905 (-4.61)	7.291 (6.43)	-11.196 (-6.33)
Post-landing years 6-10	-13.628 (-20.59)	-0.164 (-20.59)	-4.420 (-7.38)	-9.208 (-11.48)	4.788 (3.83)
N	48	48	48	48	48
R-sq	0.9247	0.9247	0.8198	0.8368	0.7409
ANOVA F(7, 40)	70.19	70.19	26.00	29.29	16.34
p-value of F	0.0000	0.0000	0.0000	0.0000	0.0000

Notes: Intercept coefficients are included in all OLS regression equations, but are not reported. Figures in parentheses below the OLS coefficient estimates are sample values of the t-statistics, which are computed using the conventional OLS standard errors of the coefficient estimates.

Source: Authors' calculations.

The remaining patterns of immigrant earnings mobility in Table 5 are similar to those in Table 4; but the coefficient estimates are generally somewhat more precise (as indicated by higher absolute values of the coefficient t-ratios) because the number of observations for the two four-year transition intervals is double the number of observations for the nine-year transition interval. First, the degree of overall immigrant earnings mobility, the average probability of moving up one or more earnings intervals, and the average *net* probability of moving up to a higher earnings category are all significantly higher for female than for male immigrants. Second, independent economic immigrants have the lowest overall degree of earnings mobility among the four admission categories, but by far the highest average probability of moving up, the lowest average probability of moving down, and hence the highest *net* average probability of moving up one or more earnings categories. Third, family class immigrants' overall earnings mobility is not statistically significantly different from that of independent economic immigrants (and hence is relatively low), but they have distinctly the lowest average probability of moving up, the highest average probability of moving down, and hence the lowest *net* average probability of moving up. Fourth, refugees exhibit the highest degree of overall earnings mobility among the four admission categories, but demonstrate intermediate degrees of directional mobility of earnings. Finally, immigrants in the 1988 landing cohort, who experienced the 1990–91 recession in their second and third post-landing years, again display statistically significant lower overall earnings mobility and a lower average probability of moving up relative to immigrants in the 1994 landing cohort, who did not experience an economic recession during their first ten years in Canada.

Regression results for the summary earnings mobility measures computed from the one-year earnings transition matrices are assembled in Table 6. The bottom two rows of coefficient estimates again illustrate how both positional and directional earnings mobility decline with years since landing (YSL): except for the last column of Table 6, the coefficient estimates for the post-landing years five-to-six and nine-to-ten dummy variable regressors are all negative and are more negative for the later one-year transition intervals. The average *net* probability of moving up one or more earnings categories is also significantly higher for the years five-to-six and years nine-to-ten transitions than for the initial years one-to-two transitions. The other findings in Table 6 for the one-year transitions are essentially the same as those in Table 5 for the four-year transitions respecting differences in immigrant earnings mobility between males and females and across admission categories, except that for the one-year transitions female immigrants exhibit a significantly higher average probability of moving down than do male immigrants.

TABLE 6
Regression-adjusted effects of major immigrant characteristics on summary earnings mobility measures for the one-year transition matrices for the 1982, 1988, and 1994 immigrant landing cohorts

Characteristics	*Probability of moving up or down*	*Prais index*	*Probability of moving up*	*Probability of moving down*	*Net probability of moving up*
Female	5.159 (12.40)	0.062 (12.40)	3.504 (8.81)	1.655 (3.88)	1.849 (2.59)
1982 landing cohort	-0.184 (-0.36)	-0.002 (-0.36)	-1.189 (-2.44)	1.004 (1.92)	-2.194 (-2.51)
1988 landing cohort	-2.084 (-4.09)	-0.025 (-4.09)	-1.452 (-2.98)	-0.632 (-1.21)	-0.820 (-0.94)
Other economic	-0.691 (-1.17)	-0.008 (-1.17)	-3.433 (-6.10)	2.743 (4.54)	-6.176 (-6.12)
Family class	0.323 (0.55)	0.004 (0.55)	-5.061 (-8.99)	5.385 (8.92)	-10.446 (-10.36)
Refugee class	3.080 (5.24)	0.037 (5.24)	-2.102 (-3.73)	5.182 (8.58)	-7.283 (-7.22)
Post-landing years 5-6	-13.541 (-26.58)	-0.162 (-26.58)	-5.153 (-10.57)	-8.388 (-16.04)	3.235 (3.70)
Post-landing years 9-10	-20.695 (-40.63)	-0.248 (-40.63)	-8.761 (-17.97)	-11.934 (-22.82)	3.172 (3.63)
N	72	72	72	72	72
R-sq	0.9683	0.9683	0.8883	0.9151	0.6957
ANOVA F(8, 63)	240.59	240.59	62.61	84.84	18.00
p-value of F	0.0000	0.0000	0.0000	0.0000	0.0000

Notes: Intercept coefficients are included in all OLS regression equations, but are not reported. Figures in parentheses below the OLS coefficient estimates are sample values of the t-statistics, which are computed using the conventional OLS standard errors of the coefficient estimates.
Source: Authors' calculations.

SUMMARY AND POLICY IMPLICATIONS

This chapter reports the major findings of an empirical analysis of the earnings mobility of male and female immigrants over their first ten post-landing years in Canada. It focuses in particular on differences in earnings mobility across four major immigrant admission categories: independent economic immigrants (principal applicants who are evaluated under the point system screen of the Federal Skilled Worker Program), other economic immigrants (other adult family numbers accompanying the principal applicant), family class immigrants (who are sponsored by a resident family), and refugee class immigrants (who are admitted on humanitarian grounds). So a policy-relevant question is whether and how much better immigrants in one admission category do relative to immigrants in other admission categories.

Our analysis employs a transition matrix approach in order to capture detailed distributional patterns of immigrant earnings adjustment. We also examine a number of summary or aggregate earnings mobility measures calculated from the transition matrices that facilitate comparisons across immigrant subgroups. Our implementation of the transition matrix approach employs longitudinal annual earnings data from Citizenship and Immigration Canada's IMDB. Most of the analysis focuses on the cohort of Canadian immigrants who were landed as permanent residents in the year 1994. The analysis follows them over their first ten post-landing years from 1995 to 2004. A summary regression analysis also makes use of similar transition matrix earnings mobility statistics for two earlier immigrant cohorts that were landed in the years 1982 and 1988.

Overview of major findings

The chapter reports four major sets of findings. First, the degree of *overall* earnings mobility is somewhat higher for immigrants in their first decade of Canadian residence than for workers as a whole in the Canadian labour market. For example, the average probability of moving up or down one or more earnings categories is estimated to be 71.8 percent for immigrant men and 76.7 for immigrant women over the nine-year transition period 1995–2004 compared to 68.9 percent for all male earners and 65.0 percent for all female earners over the 12-year transition interval 1982–1994. In addition, compared with workers as a whole in the Canadian labour market, the degree of earnings mobility experienced by 1994 immigrants in their first decade in Canada is much greater among middle and top earners than among lower-earning workers.

When we compare measures of *directional* earnings mobility, the biggest difference in mobility between immigrant earners in the 1994 cohort and all Canadian earners occurs in their average probabilities of moving down one or more earnings categories. The average probability of moving down for both the middle and top earnings groups is considerably greater among immigrants than among workers as a whole – more so for females than for males. As a consequence, the average *net* probability of moving up is dramatically lower for immigrants in the 1994 landing cohort – both male and female – than for earners as a whole in the Canadian labour market.

The second major finding is that overall earnings mobility is higher for female than for male immigrants. Our regression-adjusted estimates indicate that the average probability of moving up or down is higher for female than for male immigrants by 2.1 percentage points for the nine-year transitions, by 3.2 percentage points for the four-year transitions, and by 5.2 percentage points for the one-year transitions (Tables 4–6). Interestingly, this is opposite to the situation for male and female workers as a whole in the Canadian labour market, where female earners exhibit a lower average probability of moving than male earners by 5–7 percentage points. The gap in overall earnings mobility between immigrants and workers as a whole is greater among female workers than among male workers in the middle and top earnings groups.

For the 1994 landing cohort, the higher positional mobility among female immigrants is largely attributable to a higher average probability of moving down one or more earnings categories over the nine-year transition period. Consequently, the average *net* probability of moving up is considerably higher for male immigrants than for female immigrants. However, the pooled regression results for the nine-year transitions of all three immigrant landing cohorts (Table 4) yield a different pattern. Specifically, the average probability of moving up one or more earnings categories over the nine-year transition period is higher for female compared to male immigrants by 2.9 percentage points, and their average *net* probability of moving up is higher by 3.8 percentage points. Moreover, there is no statistically significant difference between female and male immigrants in their average probability of moving down over a nine-year transition interval. Evidently, the experience of immigrants in the 1994 landing cohort was not entirely the same as that of the earlier 1982 and 1988 landing cohorts.

The third main findings pertain to differences in the median *earnings profiles* of immigrants across the four major immigrant admission categories. For both male and female immigrants, independent economic immigrants (all of whom were skill-assessed principal applicants) consistently had by far the highest median earnings levels in all ten years of their first post-landing decade in Canada. For the 1994 landing cohort, the median annual earnings of male independent economic immigrants were on average 34.9 percent higher than the ten-year average of median annual earnings for all male immigrants in the four admission categories, while the median annual earnings of female independent economic immigrants were on average 55.2 percent higher than the corresponding ten-year average for all female immigrants. Other economic immigrants (consisting largely of spouses and dependants of the principal applicants) ranked second in median earnings levels in all ten post-landing years for the 1994 landing cohort.

Family class immigrants ranked third (for males) or fourth (for females) among the four admission categories in terms of median earnings levels. Again for the 1994 landing cohort, the ten-year average of median earnings levels for males in the family class category was 10.5 percent below the ten-year average median earnings level for all male immigrants in the four admission categories, while the ten-year average of median earnings levels for females in the family class category was 12.6 percent below the corresponding ten-year average for all female immigrants. Among male immigrants in the four admission categories, those in the refugee category exhibited the lowest median earnings levels, while among female immigrants those in the refugee category had the second-lowest median earnings levels. The ten-year average of median annual earnings levels over the 1995–2004 period was 14.7 percent lower for male refugees than for all male immigrants in the 1994 cohort, and 10.4 percent lower for female refugees than for all female immigrants in the 1994 cohort. In terms of earnings growth, however, refugees (both male and female) exhibited the highest rates of median real earnings growth, while family class immigrants (male and female) experienced the lowest rates of median real earnings growth over their first ten years in Canada.

The fourth set of major findings concerns differences in *earnings mobility* across the four immigrant admission categories. Independent economic immigrants are found to have had relatively low overall earnings mobility among the four admission categories. But compared with the other immigrant admission categories, independent economic immigrants exhibited distinctly the highest average probability of moving up, the lowest average probability of moving down, and hence by far the highest average *net* probability of moving up to a higher earnings category. To illustrate, the regressions for the nine-year transitions of the three landing cohorts (Table 4) imply that, relative to the other three admission categories, independent economic immigrants had the highest probability of moving up by an average of 5.9 percentage points, the lowest probability of moving down by an average of 8.0 percentage points, and thus the highest *net* probability of moving up by an average of 13.9 percentage points. The regressions for the four-year and one-year transitions yield findings similar to those for the nine-year transitions. Independent economic immigrants also experienced the largest upward earnings jumps and the smallest downward earnings jumps among the four admission categories. In summary, of the four major immigrant admission categories, independent economic immigrants have demonstrated substantially the greatest degree of upwardly directed earnings mobility (i.e., the greatest relative earnings advancement).

Compared with independent economic immigrants, family class immigrants are at the other end of the earnings mobility spectrum: of the four admission categories, they exhibited the lowest average probability of moving up, the highest average probability of moving down, and hence the lowest average *net* probability of moving up one or more earnings categories. For example, the regressions for the nine-year transitions of the three landing cohorts (Table 4) imply that, relative to the other three admission categories, family class immigrants had the lowest probability of moving up by an average of 5.9 percentage points, the highest probability of moving down by an average of 5.3 percentage points, and thus the lowest *net* probability of moving up by an average of 11.2 percentage points. Family class immigrants also generally had the smallest upward earnings jumps compared with immigrants in the other three categories. The degree of overall earnings mobility of family class immigrants is not significantly different statistically from that of independent economic immigrants and hence is relatively low. Refugee class immigrants had the highest degree of overall earnings mobility among the four admission categories, and they consistently exhibited a significantly higher average probability of moving up or down than did independent economic immigrants. But refugees generally displayed only intermediate degrees of directional earnings mobility. Finally, other economic immigrants were generally in the middle of the pack – neither the highest nor the lowest of the four admission categories – on all measures of both overall and directional earnings mobility.

Immigration policy considerations

The empirical findings presented in this chapter reflect on several aspects of Canadian immigration policy. First, immigrants demonstrate greater earnings mobility in the labour market than do Canadian workers as a whole. They thus show greater flexibility in the workforce and help to provide the grease for economic adjustment as the economy evolves. Immigrants tend to be more geographically mobile than non-immigrants, at least in their initial years in Canada, and to move toward expanding sectors and away from declining ones. Recent immigrants also demonstrate greater occupational mobility than do non-immigrants, suggesting that they respond to economic shocks and incentives more flexibly than does the native-born workforce (Green 1999). Substantially reducing overall immigration levels would thus not be an advisable direction for immigration policy as it could reduce the short-run flexibility and adaptability of the Canadian labour market.

Second, the pooled analysis of summary mobility measures across three landing cohorts implies that female immigrants on average experience greater earnings mobility than male immigrants. This presents an opportunity to better recognize this outcome through immigration policy. One approach might involve allocating more points under the Federal Skilled Worker Program screen to the skill characteristics (such as education and occupation) of a spouse, or having a point system that better reflects a whole family including the presence of young children (as an alternative to the current one focused on the principal applicant). Since a large number of foreign post-secondary students in Canada are female, another option would be to expand the post-secondary student component of the recently introduced Canadian Experience Class program.

Third, among the major immigrant admission categories, our evidence indicates that independent economic immigrants have a significantly greater degree of upward earnings mobility than do immigrants in the other admission categories. During the period covered by the present study, the category of independent economic immigrants consisted almost entirely of entrants under the Federal Skilled Worker Program. Canadian immigration policy should continue to assign a substantial weight to skill-assessed immigration, and the Federal Skilled Worker Program (FSWP) should not be reduced or replaced by programs that do not depend on attracting skilled workers to Canada, such as low-skilled workers currently entering under Provincial Nominee Programs or the Temporary Foreign Worker Program – both of which have dramatically expanded in recent years. On the other hand, the point system embodied in the current FSWP has traditionally put a lot of weight on formal education and white-collar skills and has not adequately recognized blue-collar skills or the skilled trades, of which there is currently some evidence of a growing shortage in Canada. The government recently announced the addition of a completely separate point-system schedule relevant to skilled-trades applicants. This would seem to be a very sensible development.

Fourth, refugee class immigrants have been shown to experience a long, slow integration into the Canadian labour market. This means that a broad range of public efforts and programs – not a narrow, siloed response – should be brought to bear on remedying this problem (Omidvar and Lopes 2012; Roundtable Report 2012).

The future of economic immigration for Canada: Major trade-offs in Canadian immigration policy

Different programs serve different roles or objectives of immigration policy, and immigration authorities must seek a balance among the different programs that is as informed and evidence-based as possible. Finding the right balance among programs is a challenge that requires better understanding of the various costs, benefits, and time frames (i.e., short run versus long run) of these different gains and losses. For example, earnings profiles and employment outcomes can help inform the choice between economic immigrants and other immigrant categories. Similarly, knowing that increasing overall immigration levels alone will lower average earnings levels of incoming immigrants, while raising the proportion of arrivals who are economic class immigrants alone will increase average earnings levels of incoming immigrants, means that one can combine these two sets of evidence by making the two changes simultaneously so as not to reduce the average earnings of immigrants (Beach, Green, and Worswick 2011). Research can thus point out helpful trade-offs between separate policy measures.

But there is always a time lag between the development of new policies and the availability of new data and research evaluating these policies. This study has demonstrated the significantly better economic performance of economic class immigrants in the Canadian labour market. But in the period covered by the study (i.e., up to 2005), economic immigrants consisted almost entirely of entrants under the Federal Skilled Worker Program. Since 2008, however, there have been a great many major changes in Canadian economic immigration policy, including the introduction of restrictions on the FSWP requiring that all applicants fall into one of 29 specified in-demand occupations; announced plans to introduce an employer-oriented Expression of Interest model for the operation of the FSWP; rapid expansion of Provincial Nominee Programs (PNPs) and introduction of the Canadian Experience Class program, which are both now included – along with the FSWP – within the economic class of immigrants (and indeed have priority over the FSWP); and rapid growth of admissions under the Temporary Foreign Worker (TFW) Program to the point where it now rivals or exceeds the total number of economic class immigrants. So what issues do these policy developments raise that can be informed by our findings?

First, immigration policy has been shifting toward a narrower occupational gap-filling approach and away from a human capital approach (as embodied in the point system) founded on broad-based general skills such as level of education and language proficiency. But the occupational approach was tried in the 1970s and ultimately rejected because specific occupational needs are hard to predict accurately in a rapidly changing economy, and the administrative process of adjusting the admission screen to reflect changing occupational needs was too slow and cumbersome. However, the recent reintroduction of this occupationally focused approach was an effort to reduce the huge backlog of applicants under the FSWP and to make the supply of immigrants more responsive to actual in-demand employment needs. As the backlog has been reasonably worked off, what then are the best alternative ways to incorporate demand-side needs into the immigrant selection process? Identifying and evaluating different alternatives to accomplish this objective is clearly a key issue. But policy should still recognize the well-documented, positive economic performance of immigrants admitted under the basic skill screen of the FSWP.

Second, with the rapid growth of the PNPs (where admissions are largely recommended by employers based on their current needs), immigration policy has also been shifting toward more direct employer-based selection approaches and away from a point-system approach. In fact, a large fraction of PNP admissions are relatively low-skilled workers, and PNP applicants are not subjected to a skill screen (unlike

FSWP applicants). The rapid growth of the PNPs therefore constitutes a move away from high-skilled immigration. Again, what are the costs and benefits (not just economic) of both approaches? For example, an employer-based selection approach appears to provide more immediate or short-run benefits in terms of good employment and earnings outcomes as employers simply know better what skills are needed, while the broad skill-based, point-system approach appears to involve higher short-run adjustment costs (by both immigrants and governments) but eventually higher long-run earnings outcomes after four or five years. Employers tend to focus on their own private benefits over a relatively short planning horizon, while governments have to look at the broader social benefits and costs of immigration over a longer time horizon. Their perspectives may also differ: employers want workers who fill their immediate employment needs, while the nation wants citizens for both their economic and social contributions.

Third, immigration policy has also been shifting toward greater reliance on temporary foreign workers rather than on skill-evaluated permanent residents, and especially on the increased use of unskilled or semi-skilled foreign workers. The rationale for TFWs is to address short-term skill shortages and temporary tightness in the Canadian labour market. This may be a convenient way to fill employers' immediate needs, but it inhibits the domestic labour market from adjusting to fill such shortages and encourages employers to become dependent on a continuing supply of foreign workers at a lower wage than domestic workers may expect. We have seen that less skilled workers do not have economic outcomes as favourable as those of more skilled immigrants. Whether such temporary foreign workers enhance economic growth by filling critical gaps or retard long-run growth by inhibiting opportunities for domestic workers depends essentially on whether such TFWs are complements or substitutes for domestic workers in the economy. We know very little about the actual facts here, and there is a manifest need for research to obtain estimates of the degree of such complementarity or substitutability that TFWs provide.

Striking the right balance among the trade-offs involved in improving skilled immigration policy in Canada requires up-to-date information and research on immigrant outcomes for different programs. It seems reasonable that a balanced selection system for skilled immigrants should involve several programs that reflect the different roles or objectives of immigration. But the details of these programs may well change over time with Canada's evolving economic, social, and demographic conditions. So such research on immigrants' economic and social outcomes needs to be kept timely and informed by sound data.

APPENDIX TABLES

TABLE A1
Average probability of moving up and down by earnings group among immigrants and earners as a whole in Canada

	Males		*Females*	
	All workers 8-year transition 1991–99 (%)	*Immigrants 9-year transition 1995–04 (%)*	*All workers 8-year transition 1991–99 (%)*	*Immigrants 9-year transition 1995–04 (%)*
Average probability of moving up				
– Bottom	76.17	79.34	65.16	79.91
– Middle	38.38	22.82	27.79	23.99
– Top	0	0	0	0
Average probability of moving down				
– Bottom	5.98	5.77	8.12	5.71
– Middle	24.10	47.84	28.43	51.86
– Top	27.52	48.65	35.31	61.16
Average probability of moving				
– Bottom	82.15	85.11	73.28	85.62
– Middle	62.49	70.65	56.21	75.85
– Top	27.52	48.65	35.31	61.16
Average net probability of moving up				
– Bottom	70.19	73.57	57.04	74.20
– Middle	14.28	-25.02	-0.64	-27.87
– Top	-27.52	-48.65	-35.31	-61.16

Sources: Tables 1a and 1b, and Abbott and Beach (2013, Table A6).

TABLE A2
Ten-year average and average annual growth rates of median real annual earnings of male and female immigrants by admission category for the 1994 landing cohort (2004 dollars)

	All admission categories	*Independent economic*	*Other economic*	*Family class*	*Refugees*
			Males		
10-year average earnings ($)	29,039	39,173 (1)	30,287 (2)	25,997 (3)	24,778 (4)
Average annual growth (%)	8.24	8.85 (2)	8.66 (3)	7.58 (4)	10.65 (1)
10-year change (%)	101.2	108.6 (2)	107.8 (3)	91.2 (4)	143.6 (1)
			Females		
10-year average earnings ($)	18,391	28,540 (1)	20,777 (2)	16,071 (4)	16,487 (3)
Average annual growth (%)	8.44	9.04 (3)	10.50 (2)	7.32 (4)	11.38 (1)
10-year change (%)	105.4	113.8 (3)	141.8 (2)	87.3 (4)	159.0 (1)

Note: Figures in parentheses are the ranks in descending order across admission categories.
Source: Authors' calculations based on Citizenship and Immigration Canada's Immigration Database. Compiled from Abbott and Beach (2011a, Tables A6 and A7).

TABLE A3(a)
Nine-year transition matrix for male independent economic immigrants in the 1994 landing cohort (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**10.87**	10.06	24.95	21.33	17.10	15.69	100.0
LO 1995	11.42	**12.98**	28.37	18.69	12.28	16.26	100.0
LM 1995	8.10	11.77	**28.06**	24.16	13.46	14.45	100.0
HM 1995	4.57	8.59	32.02	**25.28**	15.01	14.53	100.0
HI 1995	3.23	6.09	17.02	28.20	**20.75**	24.72	100.0
VH 1995	1.53	2.23	6.99	12.57	16.33	**60.34**	100.0

N = 6,135

Average summary transition probabilities

Average probability of staying	=	26.38
Average probability of moving up/down	=	73.62
Prais mobility index	=	0.8834
Average probability of moving up	=	45.18
Average probability of moving down	=	28.44
Average net probability of moving up	=	16.73
Average upward jump	=	1.0028
Average downward jump	=	0.4579

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 7(a)).

TABLE A3(b)
Nine-year transition matrix for female independent economic immigrants in the 1994 landing cohort (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**3.47**	8.33	19.44	27.08	20.83	20.83	100.0
LO 1995	7.80	**8.72**	23.39	26.61	13.76	19.72	100.0
LM 1995	5.44	11.58	**23.40**	25.30	14.89	19.39	100.0
HM 1995	8.31	6.11	23.47	**23.96**	16.14	22.00	100.0
HI 1995	4.83	6.04	16.92	28.40	**22.96**	20.85	100.0
VH 1995	2.59	4.14	8.93	14.36	21.47	**48.51**	100.0

N = 2,290

Average summary transition probabilities

Average probability of staying	=	21.84
Average probability of moving up/down	=	78.16
Prais mobility index	=	0.9380
Average probability of moving up	=	49.76
Average probability of moving down	=	28.40
Average net probability of moving up	=	21.36
Average upward jump	=	1.1782
Average downward jump	=	0.4951

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 7(b)).

TABLE A4(a)
Nine-year transition matrix for male other (tied) economic immigrants in the 1994 landing cohort (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**15.17**	12.92	28.09	21.35	12.92	9.55	100.0
LO 1995	7.56	**9.33**	34.22	27.56	11.56	9.78	100.0
LM 1995	5.97	11.94	**40.09**	24.09	12.15	5.76	100.0
HM 1995	6.94	8.95	33.33	**31.99**	11.86	6.94	100.0
HI 1995	2.40	5.20	24.00	36.40	**19.20**	12.80	100.0
VH 1995	3.38	6.33	11.39	17.72	21.52	**39.66**	100.0

N = 1,805

Average summary transition probabilities

Average probability of staying	=	25.91
Average probability of moving up/down	=	74.09
Prais mobility index	=	0.8891
Average probability of moving up	=	40.26
Average probability of moving down	=	33.84
Average net probability of moving up	=	6.420
Average upward jump	=	0.8332
Average downward jump	=	0.5774

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 8(a)).

TABLE A4(b)
Nine-year transition matrix for female other (tied) economic immigrants in the 1994 landing cohort (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**11.99**	9.94	26.02	20.76	11.40	19.88	100.0
LO 1995	10.48	**10.95**	24.52	24.05	14.29	15.71	100.0
LM 1995	9.36	11.70	**24.42**	27.63	13.16	13.74	100.0
HM 1995	7.32	8.78	27.64	**29.59**	13.33	13.33	100.0
HI 1995	3.39	8.09	20.63	34.46	**19.84**	13.58	100.0
VH 1995	3.55	3.55	11.11	20.09	19.39	**42.32**	100.0

N = 2,865

Average summary transition probabilities

Average probability of staying	=	23.19
Average probability of moving up/down	=	76.82
Prais mobility index	=	0.9218
Average probability of moving up	=	43.56
Average probability of moving down	=	33.26
Average net probability of moving up	=	10.30
Average upward jump	=	0.9939
Average downward jump	=	0.5774

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 8(b)).

TABLE A5(a)
Nine-year transition matrix for male family class immigrants in the 1994 landing cohort (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**16.12**	17.27	39.31	17.27	6.25	3.78	100.0
LO 1995	12.90	**18.55**	40.11	19.26	5.30	3.89	100.0
LM 1995	9.40	15.09	**44.96**	22.82	5.60	2.13	100.0
HM 1995	5.74	9.64	40.80	**32.86**	8.12	2.84	100.0
HI 1995	3.76	6.85	25.41	41.66	**14.59**	7.73	100.0
VH 1995	3.35	3.35	10.97	25.84	21.56	**34.94**	100.0

N = 9,375

Average summary transition probabilities

Average probability of staying	=	27.00
Average probability of moving up/down	=	73.00
Prais mobility index	=	0.8760
Average probability of moving up	=	33.61
Average probability of moving down	=	39.39
Average net probability of moving up	=	-5.773
Average upward jump	=	0.6061
Average downward jump	=	0.6474

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 9(a)).

TABLE A5(b)
Nine-year transition matrix for female family class immigrants in the 1994 landing cohort (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**15.13**	19.90	30.10	21.50	6.53	6.85	100.0
LO 1995	12.83	**19.14**	36.17	19.94	7.21	4.71	100.0
LM 1995	12.31	21.25	**35.06**	20.55	6.62	4.21	100.0
HM 1995	11.38	15.13	38.34	**22.59**	8.07	4.48	100.0
HI 1995	7.01	8.40	32.20	31.35	**12.65**	8.40	100.0
VH 1995	5.24	5.66	16.14	25.66	20.00	**27.31**	100.0

N = 7,350

Average summary transition probabilities

Average probability of staying	=	21.98
Average probability of moving up/down	=	78.02
Prais mobility index	=	0.9362
Average probability of moving up	=	34.21
Average probability of moving down	=	43.82
Average net probability of moving up	=	-9.610
Average upward jump	=	0.6556
Average downward jump	=	0.7984

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 9(b)).

TABLE A6(a)
Nine-year transition matrix for male refugee immigrants in the 1994 landing cohort (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**14.60**	10.74	29.75	29.20	11.02	4.68	100.0
LO 1995	10.27	**15.18**	38.17	20.54	9.15	6.70	100.0
LM 1995	10.56	16.16	**35.36**	22.08	10.72	5.12	100.0
HM 1995	7.19	8.83	34.29	**32.03**	10.47	7.19	100.0
HI 1995	7.47	6.64	23.65	39.83	**16.18**	6.22	100.0
VH 1995	4.80	9.60	19.20	20.80	24.00	**21.60**	100.0

N = 2,280

Average summary transition probabilities

Average probability of staying	=	22.49
Average probability of moving up/down	=	77.51
Prais mobility index	=	0.9301
Average probability of moving up	=	36.96
Average probability of moving down	=	40.55
Average net probability of moving up	=	-3.590
Average upward jump	=	0.7480
Average downward jump	=	0.7393

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 10(a)).

TABLE A6(b)
Nine-year transition matrix for female refugee immigrants in the 1994 landing cohort (1995–2004)

1995/2004	*VL 2004*	*LO 2004*	*LM 2004*	*HM 2004*	*HI 2004*	*VH 2004*	*Row sum*
VL 1995	**16.67**	14.58	21.53	20.83	14.58	11.81	100.0
LO 1995	10.22	**15.59**	32.80	25.27	9.68	6.45	100.0
LM 1995	6.88	13.77	**30.07**	27.54	12.68	9.06	100.0
HM 1995	9.73	12.97	22.16	**34.59**	5.95	14.59	100.0
HI 1995	5.71	14.29	27.62	25.71	**12.38**	14.29	100.0
VH 1995	4.35	11.59	15.94	20.29	17.39	**30.43**	100.0

N = 965

Average summary transition probabilities

Average probability of staying	=	23.29
Average probability of moving up/down	=	76.71
Prais mobility index	=	0.9205
Average probability of moving up	=	40.27
Average probability of moving down	=	36.44
Average net probability of moving up	=	3.837
Average upward jump	=	0.8420
Average downward jump	=	0.7260

Note: VL = very low; LO = low; LM = low middle; HM = high middle; HI = high; VH = very high.
Source: Authors' calculations from Citizenship and Immigration Canada's Immigration Database. Reproduced from Abbott and Beach (2013, Table 10(b)).

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F THOMAS J. COURCHENE: PERSPECTIVES AND PUBLICATIONS

THINKING OUTSIDE THE BOX: REFLECTIONS OF A MARKET POPULIST

Thomas J. Courchene

INTRODUCTION

The editors of this volume, Keith Banting, Rick Chaykowski, and Steve Lehrer, generously suggested that they would welcome a chapter reflecting on selected aspects of my academic and public policy career. It is a privilege and a pleasure to accept this challenge.

Let me begin by noting that the editors were perceptive in selecting "Thinking Outside the Box" as an appropriate way to summarize my body of work, although perhaps for reasons other than they may have had in mind. This is so because I did not and still do not possess the economists' requisite toolkit in order to think "inside" the box. For example, I have never taken a calculus course. Moreover, while I did manage to master the operations of a user-friendly program to estimate a two-stage, least-squares model of the Canadian economy (A.11),[1] my quantitative skills have vanished over the intervening 40-plus years, as suggested by the long-standing aphorism on my office door: "There are three types of economists – those that can count and those that can't!" This reality, along with the fact that Queen's School of Policy Studies does not have

[1] The references to my CV (appended to this volume) take the form of a letter (B for authored books, E for books I have edited, and A for single or jointly authored articles) and a number. Thus (A.11) refers to the eleventh authored paper under the CV section "Articles in Professional Journals or in Edited Books." Note that my authored chapters in edited books fall under A, not E.

Thinking Outside the Box: Innovation in Policy Ideas, edited by K.G. Banting, R.P. Chaykowski, and S.F. Lehrer. Kingston: School of Policy Studies, Queen's University.

a doctoral program, meant that I have supervised precious few doctoral theses over my career and, therefore, have played little in the way of a direct mentoring role for the next generation of academic economists. Nor, apart from a sabbatical-leave grant, have I been the recipient of any significant research grants since my arrival at Queen's. In short, I have had and still have no choice but to think outside the box.

Lest this be viewed as some sort of lament, I can assure the reader that it is anything but. Rather it was and continues to be a welcome opportunity, even an invitation, to strike out in new directions. Happily my timing on entering Princeton for graduate training (1962) was propitious in that this was the era of JFK's New Frontier, LBJ's Great Society, and Pearson's creation of Social Canada.[2] As a result, the traditional economics mainstays of macro, micro, and econometrics were being complemented by policy areas such as health, education, labour, poverty/inequality, pensions, urbanization, and migration/immigration, all of which soon developed their own specialty journals. Under the general label of Canadian public policy, these were the areas (plus other areas like free trade, globalization, human capital, and federalism) that have occupied my research attention.

If there is some differentiating feature in my approach to Canadian policy, it may well lie in the importance I have assigned to the *institutions and frameworks* associated with these policy areas. Moreover, while as noted my mathematical and quantitative skills may have been lacking, I did rely heavily on the economists' general equilibrium perspective – an invaluable asset when dealing with complex and interactive systems such as the constellation of retirement income policies or the federal-provincial transfer system. For example, the universality vs. selectivity issue needs to be approached from a general equilibrium perspective as I noted in *Social Policy in the 1990s* (B.23, 24):

> What matters to individuals or families that have to rely on the social policy network is how the *system* of programs affects their well being or behaviour. The fact that o*ne* program is universal need not make the system or subsystem more effective or equitable. Indeed, it is easy to imagine cases in which the fact that one program is selective completely offsets the fact that another program in the system is universal.

Finally, in terms of my public policy perspective, as the subtitle indicates I often describe myself as a "market populist" – a believer in

[2] Given that the Liberals' influential 1960 Kingston Conference was the crucible for much of the later social engineering of the Pearson era, Canada's social revolution is not beholden to the Kennedy/Johnson initiatives.

individualism and market forces on the one hand tempered (I trust) by a generous social envelope on the other.

BEGINNINGS

One of my U of S professors claimed that my home town – Wakaw, Saskatchewan – was one of those small prairie towns where you could have a good time without enjoying yourself! Perhaps, but with two important caveats. The first was that these small town schools typically had excellent and dedicated teachers who of necessity were fully integrated into the community; indeed, parent-teacher meetings could be conducted on main street! The second was that it was rather natural to develop a market-populist perspective in these farming communities where people toiled in the fields over those things they could control and gathered for Sunday service to pray for those things they could not (rain or shine, as the case may be, and on occasion even the price of wheat).

Even more personal, my mother instilled in me the value of education and the pursuit of knowledge. Deprived of a university education by the Great Depression, she ensured that her children would be university graduates. From my father I learned to appreciate public service. He was mayor of our town for most of my high school years, and he served on numerous community boards and associations. I often recall the bittersweet moment of being present at my father's death and then, as I was leaving the hospital, pausing in the foyer before his photo and plaque commemorating his role as chair of the board that created the hospital.

I was fortunate during high school to work part-time for the weekly *Wakaw Recorder*. The owner, Ed Brunanski, was an ardent supporter of the CCF, and so I was privy to witness first hand, as it were, the high politics associated with Saskatchewan's medicare legislation and the doctors' strike, including full-page advertisements booked (indirectly) by the American Medical Association. Intriguingly enough, my first published piece was an editorial in the *Wakaw Recorder* entitled "Douglas for New Party," urging Tommy Douglas to take the helm of what was then called the New Party (later the New Democratic Party). I still remember the last sentence: "It is not that Saskatchewan needs Douglas less but that Canada needs Douglas more."

In terms of my academic affiliations, after graduating with an Honours BA in economics from U of S in 1962, I spent three years at Princeton before arriving at the University of Western Ontario in 1965 (eventually receiving my Princeton PhD in 1967). I remained at Western until 1988 including a post-doctoral leave at Chicago in 1968–69, a sabbatical year at Geneva's Graduate Institute of International Studies (GIIS) in 1975–76, a Visiting Professorship at École nationale d'administration publique (Montreal) in 1986, and an academic leave in 1987–88 to occupy the John P. Robarts Chair at York University. I joined Queen's University as the inaugural director of the new School of Policy Studies in mid-1988. Thankfully, since I was ill-suited for this role, Doug Purvis engineered my abandoning the directorship in 1991 in favour of Keith Banting. In turn, I became the Jarislowsky-Deutsch Professor of Economic and Financial Policy, a chair that I held until my retirement. On the institutional front, I was chair of the Ontario Economic Council from 1982 to 1985, Senior Fellow of the C.D. Howe Institute from 1980 to 1999, director of the John Deutsch Institute for the Study of Economic Policy from 1993 to 1999 and also in 2001–02, director of the Queen's Institute of Intergovernmental Relations (IIGR) from 2006 to 2009, and Senior Scholar at the Institute for Research on Public Policy (IRPP) from 1999 onward to the present. As will become evident, all of these appointments and/or positions were important in defining the scope and nature of my role in, and contributions to, Canadian economic policy.

With this as backdrop, I reflect in this chapter on the evolution of my thinking and writing on Canadian public policy. My reflections will take the form of brief commentaries on a selection of policy areas that arguably are representative of my contributions, followed by reference to the critical role that institutes and think tanks have played in my career. I conclude with expressions of appreciation and gratitude to those who made this all possible.

MONETARY POLICY AND THE BANK OF CANADA

To the extent that I had a specialization arising from my graduate studies, it probably was money and banking. (By way of an aside, my thesis was on the determinants of the fluctuations in corporations' inventories, an area that I quickly and permanently abandoned once I had my PhD in hand and had published a *Canadian Journal of Economics and Political Science* article (A.3) from the dissertation.) This monetary policy interest led to articles in the *Journal of Political Economy* on the demand for money in the United States (A.2) and internationally (A.4), and as noted earlier the estimation of the macro-financial econometric model of the Canadian economy (A.11). However, my most thorough research undertaking in this general area (and perhaps overall) was the five-volume series published by the C.D. Howe Institute on the analytical and institutional evolution of the Bank of Canada's approach to monetary policy over the 1970–83 period (B.4–B.8). My interest in this area had been stimulated by my 1968–69 post-doctoral year at Chicago and in particular by the writings of, and classes from, Milton Friedman, Harry Johnson, and Bob Mundell. After an initial attempt to follow in the footsteps of the Friedman-Schwartz US monetary policy history by analyzing the determinants of the Canadian money supply in the pre–Bank of Canada era (A. 6), I turned my attention instead to assessing the ongoing evolution of Canadian monetary policy in the 1970s. Important in getting this five-volume series off the ground was the encouragement of C.D. Howe's president, Carl Beigie, and my good fortune to share an office with Harry Johnson at Geneva's Graduate Institute of International Studies during my 1975–76 sabbatical year. The institutional raw materials for all five volumes were the Bank of Canada's annual reports (supplemented by the governors' speeches) as well as the full range of macro and monetary indicators.

The prevailing monetary paradigm in the 1970s was the woolly "credit-conditions" approach, namely, that what matters for monetary policy is the cost and availability of credit. This was coupled with governor Louis Rasminsky's assertion that "the concept of the money supply … is one which I, myself, do not regard as the essential operational concept in the conduct of monetary policy" (B.4, 98). My favourite quotation relating to the fuzziness of this "credit-conditions" approach is from a US congressional hearing in this time frame where the Federal Reserve representative before the committee stated that the existing US credit conditions were "easy, but not that easy." In the ensuing question period, he agreed that credit conditions could also be described as "tight, but not that tight"!

In successive volumes (B.5–B.8), I articulated the case for monetarism, which Governor Gerry Bouey embraced in his 1975 so-called Saskatoon Speech, which Milton Friedman referred to as "the best speech I have ever heard a central banker give" (B.3, 111). The final book in the series, *No Place to Stand* (B.8), documents the eventual abandoning of the monetary targets because the chosen monetary aggregate (M1) proved to be empirically unstable.[3]

MONETARY POLICY AND EXCHANGE RATES (THE DUTCH DISEASE)

Whereas these five books were, to the best of my knowledge, very well received by the Bank of Canada as well as by the profession, this was anything but the case for my more recent Mundell-influenced forays into monetary policy, especially the 1999 commentary "From Fixing to Monetary Union: Options for North American Currency Integration" (A.174) co-authored with Richard Harris. In this paper, we argued that the Bank of Canada should not have allowed the loonie to depreciate to the low 60-cent range. The rationale was that at exchange rates this low, the capital-labour ratios for both physical and human capital would end up being lower than otherwise would have been the case, with negative implications for Canada's productivity performance. On the physical capital front, since capital equipment tends to be priced in US dollars, a

[3] Readers interested in an excellent overview of Canadian monetary policy (nominal income targeting, the move toward price stability, and inflation targeting) can consult Freedman (2004).

low 60-cent loonie makes capital investment very expensive, and, as a result, Canadian firms tended to meet the US demands for their products by bringing more labour on board rather than deepening capital. On the human capital front, readers will remember this 60-cent loonie as the brain-drain era as Canadian talent emigrated south. While we were concerned in our 1999 paper that these likely productivity shortfalls relative to US productivity would impair our future competitiveness, we were also concerned that the price of oil was sure to rebound from its then $20 range and would drive the loonie upward, thereby compounding our competitiveness challenge vis-à-vis the United States.

However, what we failed to foresee was the speed and potency of what has come to be referred to as the Dutch disease: over the 2002–2008 period energy prices rose from $20 per barrel to over $100 per barrel. China and the emerging nations more generally needed our natural resources, with the result that the loonie appreciated from the low 60-cent range to above parity with the greenback. As I point out in "A Modest Proposal for Monetary Policy" (A.289), the ominous result was that from a position where Canadian and American unit labour costs in manufacturing (incorporating wage growth, productivity growth, and the exchange rate and expressed in US dollars) were both set at 100 in 2002, by 2011 Canadian unit labour costs were double their US counterpart. Left in the Dutch disease wake was and continues to be the unwinding southward of key aspects of the Ontario manufacturing sector – Heinz, Caterpillar, Kellogg's, CCL Aerosol, the Fergus wager heater plant …

Even though neither monetary union nor fixed exchange rates found favour with Canadians, the volatility issue nonetheless remains with the current flexible exchange rate regime, namely, that the Canadian currency area is too small to have a freely floating loonie and at the same time to accommodate a world-class manufacturing sector on the one hand and a global energy superpower on the other, especially if these industrial strongholds are geographically non-contiguous as they are in Canada. In effect, the operations of the Dutch disease serve to more or less stabilize our energy sector but to destabilize our manufacturing exports. This is passing strange since energy in the ground is immobile while the manufacturing capital is highly mobile.

Setting aside our 1999 call for a North American monetary union or even for a return to the eminently successful Lester Pearson fixed-exchange-rate era, there are two other approaches to reining in the Dutch disease that merit attention in the current environment. The first is to break the Dutch-disease link between energy prices and the exchange rate. Here, Norway with its sovereign wealth fund (SWF) is showing the way. It deposits the revenues from its energy exports into the SWF, which is then invested in international capital markets, thus neutralizing the Dutch disease. The challenge for Canada would be to convince or entice the energy-rich provinces to create provincial sovereign wealth funds

(PSWFs) that would invest their energy royalties in international markets rather than take them into current budgetary revenue as is now the case. This proposal appears in my Mowat Centre paper (A.286) as well as in (A.289). Note that a later section will provide another rationale for PSWFs.

Failing this option we might take a page out of the policy playbook of the Swiss monetary authorities. As part of their monetary policy target, they ensure that the Swiss franc does not appreciate above a set maximum level vis-à-vis the euro. In the Canadian context one might contemplate a similar dual monetary policy target – maintain the current inflation target but take steps to prevent the loonie from moving outside a range of, say, three or four cents on either side of the selected midpoint for the currency. This would be a version of what used to be referred to as the "crawling peg," where the midpoint or the exchange rate range could move with changes in economic fundamentals.

The bottom line here is that the exchange rate is far too important a price in our economy to be allowed to continue to play such a disruptive role in our economy. We need to rethink our policy arsenal in ways that will moderate exchange rate movements so as to ensure that manufacturing and resource development can coexist comfortably within the Canadian currency area.

However, I recognize that there might be an alternative bottom line: most of this section will be viewed as economic heresy by the mainstream of the economics profession. My fear is not that the mainstream may be right but, rather, that it may be wrong.

FINANCIAL (SECURITIES INDUSTRY) POLICY

The late finance minister James Flaherty's securities-industry mantra was that Canada is the only country without a national securities regulator. True enough, but from my perspective the more important reality is that Canada was alone among its trading partners to have effectively escaped the US-triggered global financial collapse. Indeed, a case can be made that we fared better because we did not have a national securities regulator (A.278, A.279).

By way of a brief historical note, in the mid-1980s US-based Salomon Brothers had more capital than did the entire Toronto-based, narrowly owned Canadian securities industry. In effect, we had a "really secure industry" rather than a "real securities industry" (A.73). When Quebec took measures to attract securities firms to locate (or relocate) in Montreal, Ontario reacted by throwing ownership wide open, even to foreigners. Given that ownership of the Canadian securities industry was part of the Canada-US free trade negotiations, Ottawa requested that Ontario limit ownership to Canadians for at least a year before allowing others to enter.

Ontario agreed, and our chartered banks had a field day as they gobbled up the existing players – CIBC purchased Wood Gundy, Scotiabank bought McLeod, Young, Weir to become Scotia McLeod, BMO took over Nesbitt Burns, RBC got Dominion Securities, Banque Nationale bought Levesque Beaubien, and TD Bank ended up with TD Waterhouse. While the regulation of the securities industry remained provincial, the fact that the securities firms are subsidiaries of the banks allows the Office of the Superintendent of Financial Institutions to see through this connection to ensure that the policies of the securities firms do not endanger the financial integrity of their associated banks. Effectively, our securities industry was kept within a "banking culture" in contrast to the lesser-regulated "investment culture" that permeated the US securities industry. Indeed, the five largest independent US firms (Merrill Lynch, Goldman Sachs, Morgan Stanley, Lehman Bros, and Bear Stearns) were deemed large enough to be self-regulated and all failed or at least experienced financial catastrophe!

Of course, it need not follow that if Canada had had a national securities regulator it would also have been captured by our securities firms. But it is passing strange that no sooner had Canada managed to escape the financial debacle that was visited on global financial markets, Ottawa attempted to wrest control of the securities industry from the provinces. I suspect that I am almost alone among my fellow economists in welcoming the Supreme Court's decision to disallow the proposed federal takeover of the Canadian securities industry.[4]

REGIONAL ECONOMICS: MIGRATION, UNEMPLOYMENT, UI/EI, AND TRANSFER DEPENDENCY

As a macro economist, it did not take long for me to become aware of, and intrigued by, the significant provincial variations in incomes and unemployment rates, or to realize that fishermen qualified for (then) unemployment insurance (UI) whereas prairie farmers did not. This latter difference may have been fortunate for the prairies since they were spared the likely reality that there would now be many more farmers on much smaller farms and that the entire societal environment would be tilted toward entitlement rather than enterprise. All of this by way of noting that beginning in the 1970s I was drawn toward addressing Canada's regional disparities.

My initial foray into this area was an econometric analysis of the determinants of internal migration ("Interprovincial Migration and Economic Adjustment," A.10). Among the results was that the larger were per capita equalization payments and UI transfers per labour-force

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[4] I need to declare a conflict of interest here. I wrote two papers (A.278, A.279) for the Alberta Securities Commission that became part of the Supreme Court deliberations on Ottawa's proposal for a national securities regulator.

member, the lower was out-migration. In tandem with the reality in that time frame that UI in the Atlantic region was creating the "eight-week work syndrome" (i.e., employment for only eight weeks generated UI benefits for the rest of the year), this situation came to be referred to as "transfer dependency." The failure on the part of Ottawa to make UI more insurance-oriented (e.g., to ensure that no long-term UI benefits could be earned by short-term labour-force attachment), and Ottawa's related failure to recognize that by continuously countering economic forces it was more likely to entrench rather than to ameliorate regional disparities, led me to publish "A Market Perspective on Regional Disparities" (A.49), the article highlighted by Donald Savoie in this volume.

A final duo of publications worth noting in this general area are my 1974 C.D. Howe monograph *Migration, Income, and Employment: Canada 1965–1968* (B.21) and a separate but related monograph in French focusing on Quebec (B.22). To the best of my knowledge, these were the first empirical analyses of a linked cross-section/time-series sample by province of personal income filers replete with linked data on UI status (contributors, recipients, and exhaustees). This was an exceptionally rich data set, especially for the 1970s. While the research provided new and valuable results/insights at the individual level into the migration-employment-income nexus, the full potential of the data set was never realized because the analysis was limited to cross-tabulations: the federal government sponsors balked at venturing into more sophisticated analyses at the then cost of somewhere between $80 and $100 per regression equation. From the perspective of 2014, the good news is that sophisticated analyses of cross-section, longitudinal, huge-sample data sets are now commonplace.

SOCIAL POLICY

Whereas my initial forays into social policy focused rather narrowly on specific programs, a more integrative analysis appeared in my two C.D. Howe overview monographs. The first of these, *Social Policy in the 1990s: Agenda for Reform* (1986, B.23) addressed four subsystems – the retirement-income subsystem (OAS/GIS, CPP, RRSPs, and occupational pensions), the welfare-work subsystem (UI/EI, Canada Assistance Plan, and guaranteed annual income proposals), the Established Programs Financing subsystem (federal-provincial transfers for medicare, hospitals, post-secondary education), and the equalization subsystem (dealt with below). The analytic raw materials for the range of reform options were rich in breadth and depth, for example, the Macdonald Royal Commission's Universal Income Security Program, the Newfoundland Royal Commission on Employment and Unemployment, the Forget Commission on Unemployment Insurance, and Marc Lalonde's "Working Paper on Social Security." Included in the analytical framework for assessing existing and proposed models was the trio of trade-offs – adjustment vs. security, centralization vs. decentralization, and private sector vs. public sector.

The second C.D. Howe volume, *Social Canada in the Millennium: Reform Imperatives and Restructuring Principles* (1994, B.25), was a much enlarged and more reform-oriented version of the first and was awarded the 1995 Douglas D. Purvis Prize for the best economic policy publication in 1994. The concluding chapter presented a bold and integrative blueprint for the evolution of Social Canada. Although a goodly number of the ideas and overall approaches of this blueprint remain relevant today, in the immediate aftermath of the publication the analysis was effectively sidelined by Paul Martin's 1995 watershed budget and the creation of the Canada Health and Social Transfer (CHST) replete with a one-third cut in the cash transfers. Such are the risks of real-time policy analysis!

EQUALIZATION, ENERGY, AND THE FEDERATION

Equalization is an essential part of the policy glue that binds together Canada and Canadians. In the public's mind this is because, along the lines of section 36(2) of the Constitution, the role of these unconditional cash transfers is to allow the recipient provinces to provide their citizens with "reasonably comparable levels of public services at reasonably comparable levels of taxation." However, as the first section of the ensuing analysis reveals, equalization also benefits the rich provinces. The remainder of the analysis then addresses aspects of the formidable range of challenges that have plagued the evolution of the program since its inception in 1957. Nonetheless, on the occasion of its 25th anniversary the principle of equalization was, as already indicated, enshrined in the Constitution Act, 1982.

Equalization and federalism: Tax and program decentralization

When Quebec introduced its personal income tax in 1954–55, Ottawa feared that the rest (or at least some) of the provinces would follow suit. In order to forestall this, Ottawa agreed to abate (i.e., to transfer) 10 percent of federal personal income taxes, 9 percent of federal corporate income taxes, and 50 percent of succession duties to the provinces. Since these federal abatements were allocated to the provinces on a *derivation basis* (i.e., on the basis of what was actually collected in the respective provinces), the transfers generated larger per capita revenues in the richer provinces than in the poorer ones. To mitigate these differentials, Ottawa inaugurated the equalization program that, in its 1957 version, ensured that all provinces would have per capita revenues for these three taxes equal to the per capita average of the two richest provinces (at that time Ontario and British Columbia, with the latter receiving an equalization payment).

Prior to these initiatives, the provinces had inadequate revenue-raising power to embark on major new programs: hence old age pensions and unemployment insurance, although they fell under provincial jurisdiction, were transferred via constitutional amendments to Ottawa so that these programs could be implemented. After 1957, however, the provinces did have the requisite revenue-raising apparatus (i.e., equalized tax-point transfers as well as the ability to increase the provincial component of personal and corporate taxes), which in turn meant that our defining social programs – hospital insurance, medicare, welfare, and post-secondary education – ended up being jointly financed but under provincial management and control.

A key further message here is that without the presence of such an equalization program, there is no way that the poorer provinces would have allowed Canada to become as decentralized on the taxation front as we currently are. It is in this sense that, albeit indirectly, equalization clearly and hugely also privileges the tax-rich provinces. This is particularly the case since equalization payments come from Ottawa's consolidated revenue fund and not – as many Canadians continue to believe – in the form of direct transfers from the rich provinces to the equalization-receiving provinces.

Equalization: History and challenges

With my 1984 monograph *Equalization Payments: Past, Present and Future* (B.11), my 2004 article "Confiscatory Equalization: The Intriguing Case of Saskatchewan's Vanishing Energy Revenues" (A. 218), and more than a dozen related publications, equalization can lay claim to be my favourite research topic. The monograph traces the early history of the program – how it was buffeted by the 1970s and early 1980s energy price spikes – and assesses the many alternative approaches to address this challenge en route to the transition from the National Average Standard (NAS) to the Five Province Standard (FPS) in 1982 as well as the enshrining of the equalization principle in section 36 of the Constitution Act, 1982.

Arguably, "Confiscatory Equalization" (A.218) was a key factor in triggering the demise of the FPS. The analysis demonstrated that, because of a series of inappropriate assumptions/policies on Ottawa's part, the tax-back rate on each dollar of energy royalties accruing to (then-equalization-receiving) Saskatchewan was in excess of a dollar; it was confiscatory. In complete contrast, and thanks to the Offshore Accords, the tax-back rate on Nova Scotia's offshore energy revenues was zero. In effect, the FPS was no longer tenable without major rethinking and reworking. After some compensatory payments to Saskatchewan in the order of a couple hundred million dollars, Liberal finance minister Ralph Goodale commissioned the Expert Panel on Equalization and Territorial Formula Financing (commonly referred to as the O'Brien Panel, after its chair Al O'Brien), the recommendations of which were fully implemented by Conservative finance minister James Flaherty. The panel's recommendations remain the basis for the most recent iteration of the formula, with the additional proviso that the overall amount of equalization growth is now fixed and is escalated annually in line with the three-year average of GDP growth.

Equalization and energy revenues/royalties: Interprovincial inequality and resource stewardship

From the first energy spike in 1973–74 to the present, the role of energy revenues in equalization has wrought havoc with the formula. Among the many issues at play herein, two have especially attracted my research attention in recent years, both of which receive more in-depth coverage by Boadway, Coulombe, and Tremblay in this volume.

The first relates to the reality that the energy-rich provinces have per capita fiscal capacities well above those of the rest of the provinces. Indeed, if one takes account of the costs (wages, rents, etc.) of providing comparable provincial public goods and services, then equalization-receiving Ontario, once the fiscally richest province on a per capita basis, now has the lowest per capita fiscal capacity (A.286). More generally, since these per capita differentials are beyond the capacity of the current equalization formula to address, the stage is set for the energy-rich provinces to evolve in the direction of tax havens and/or providers of superior provincial public goods and services. Among the remedies proffered (all controversial) are eliminating the deduction of provincial royalty payments in calculating federal corporate taxes, "revenue-testing"[5] the

[5] Canada income tests virtually all its transfers – GIS, OAS, EI, CCTB (Canada child tax benefits), welfare benefits, and probably others. The time has come to "revenue test" the equal-per-capita federal-provincial transfers to the provinces. In an earlier article (A.286) I proposed that the CHT/CST combination be subject to revenue testing along the following lines. If a province has a per capita all-in fiscal capacity above a certain threshold, say 115 percent, of the per capita national average of all-in fiscal capacity, then for each dollar per capita of a province's revenues above this threshold, Ottawa would reduce its CHT/CST transfer by, say, 25 cents per capita. Given that the current value of the CHT/CST is roughly $1,200 per capita, if a province has an all-in fiscal capacity of $4,800 per capita above the 115 percent per capita threshold, then its CHT/CST will fall to zero. The resulting CHT/CST clawbacks would then be redistributed to the provinces with per capita revenues below the threshold. Note that both the 25 percent clawback rate and the 115 percent threshold are for illustrative purposes only: others might prefer different rates. Note also that this is not all that novel since until recently we "income tested" these transfers. But revenue testing is more appropriate because the equalization goal is to ameliorate some of the overall revenue differentials across provinces and not just the differential for a single tax base like personal

federal-provincial cash transfers and, more boldly, converting one or more federal GST tax points into revenue-tested federal-provincial cash transfers (A.283, A.286).

The second energy-related issue that has major implications for equalization is, as noted earlier, commonly referred to as the Dutch disease; namely, that the combination of rising Canadian energy exports and rising inflows of foreign investment into the energy patch will lead to an appreciation of the Canadian dollar that in turn will wreak havoc with Canada's manufacturing sector. In an insightful article, David Emerson (2012, 53) argues that energy revenues "are long-life fixed assets that, when sold and monetized, should be reinvested in ways that benefit Canadians over the longer term" and that "pretending that resource revenue is just another form of operating revenue, to be spent on current consumption of public services is an abrogation of this responsibility." The issue here is "resource stewardship." One obvious remedy would be to encourage the creation of provincial sovereign wealth funds (PSWFs) invested in international markets. Earlier I noted that these PSWFs would serve to temper any Dutch-disease-triggered exchange-rate volatility. In the present stewardship context, PSWFs would ensure that resource endowments would serve future as well as current generations. As an additional benefit relating to the earlier equalization concerns, since the funds placed in these PSWFs would not be utilized in providing current provincial public goods and services, they would not enter the equalization formula until they are brought back into the provincial consolidated revenue funds. Indeed, the well-known "Hartwick Rule" (named after my Queen's colleague John Hartwick) states that it is optimal to leave the cumulated inflows into the PSWF intact and to draw down each year into the current budget only the return of the PSWF.

All in all, the constellation of equity and efficiency challenges associated with the interaction among equalization, energy, and federalism are formidable indeed and will be with us for the longer run. In my most recent papers on this issue (A.286, A.292), I argue that finding acceptable approaches to reducing the degree of interprovincial fiscal inequality is essential to maintaining the resilience and stability of our federation.

FISCAL POLICY AND THE DIVISION OF MONEY AND POWER

Martin and Chrétien

After roughly 25 consecutive deficits from 1969–70 onward, finance minister Paul Martin's 1995 budget laid the foundation for budget surpluses

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income taxes. Revenue testing along the above lines is a scaled-down version of a key feature of the Australian equalization system.

from 1997–98 until the 2008 global fiscal and financial crash. Not only did our debt-to-GDP ratio fall dramatically but, as well, we were able to significantly reduce corporate and personal taxes (including the indexing of personal income tax for inflation), to redesign the budgetary process in ways that increase accuracy and transparency, and to put the CPP/QPP on an actuarially sound basis well into the second half of this century. Appropriately, *Business Week* referred to this as the "Maple Leaf Miracle," and *The Economist* referred to Canada as the "fiscal virtuoso" of the G7. Indeed, Canada was alone among G7 nations in terms of running surpluses, so much so that a budgetary surplus came to be known as a "Canadian fiscal value." My own tribute to this achievement was "Half-Way Home: Canada's Remarkable Fiscal Turnaround and the Paul Martin Legacy" (A.201).

Preceding the memorable 1995 budget was the *Wall Street Journal* commentary on the 1994 Mexico peso crisis that suggested that the loonie might be next in line if our fiscal position was left unaddressed, as well as Moody's decision in early 1995 to put Canada on a "credit watch." With this much dramatic build-up to the 1995 budget, it seemed only natural that I attend the budget lock-up. Thus began my 20-year consecutive string of budget lock-ups. I rationalized these yearly budget trips by presenting a budget lecture on the following day to my Queen's graduate class and in most years by writing a post-budget assessment in IRPP's *Policy Options.* For example, in my "Variations on the Federalism Theme" (A.238), I reflected back on what might be called Paul Martin's "budgetary federalism." After starving the provinces with his one-third cut in the CHST in his 1995 budget, Martin as finance minister (presumably with Chrétien's blessing if not urging) and later as prime minister poured new money into the provinces in areas related to his view of the priorities in the emerging new global order – millennium scholarships, research chairs, early childhood development, aid for cities, First Nations, and so on. Indeed, of the four priorities in Prime Minister Martin's 2004 Speech from the Throne – health care, cities, childcare, and Aboriginal Canadians – only the fourth was in federal jurisdiction! In (A.219) I referred to this as "hourglass federalism" since Ottawa was privileging cities and citizens directly, in effect leaving the provinces as the squeezed middle of the division-of-powers hourglass. Beyond this, by making separate and different agreements across provinces (for childcare, for example), Martin as prime minister was effectively bilateralizing federalism. Small wonder that *The Economist* (February 17, 2005) referred to him as "Mr. Dithers and his distracting fiscal cafeteria"!

Flaherty and Harper

Stephen Harper came to power in early 2006 with a diametrically opposite approach to federalism. In his now-classic speech in Quebec City on December 19, 2005, he embraced (1) "open federalism," (2) a respect for the constitutional division of powers, and (3) a commitment to redress the fiscal imbalance in the federation. In practice this has meant an increased focus on areas that fall under Ottawa's jurisdiction, and in particular the expanded role of the military. Harper's two tax-point cuts in the federal GST could be viewed as addressing fiscal imbalance since the provinces could take up this tax room should they so wish (and some have done so). The more direct measures on the fiscal-imbalance front were unveiled in the 2007 budget and included the implementation of the O'Brien Report on equalization, increased monies for the federal cash transfers to the provinces (for health care, post-secondary education, and social programs), increased spending on skills training, and a longer-term commitment to infrastructure spending (an area that Ottawa has progressively viewed as falling under its jurisdiction) among other initiatives. Spared an autumn 2007 defeat in the Commons by resorting to prorogation, the Conservatives' 2008 budget responded, appropriately, to the advice of Canadians and embraced a substantial program of fiscal stabilization to combat the global financial and economic crisis. All of these issues provided the fodder for my annual *Policy Options* articles on the budgets.

Drawing from my vision of the new global order (e.g., globalization and the knowledge/information revolution as outlined below), I voiced two comments on this Martin-Harper philosophical divide. The first related to the nature of the fiscal stabilization. By and large the Harper-Flaherty stimulus (with co-funding from the provinces) was all about "boards and mortar." While this obviously played well politically since all MPs could share in the resulting economic activity and ribbon cutting, it wasted a great opportunity to transform the Canadian economy in the direction of "mortarboards." Contrast our billions of dollars spent on hundreds of physical infrastructure projects with the billions of dollars that Australia spent on improving education infrastructure, training, and student support (elementary, secondary, and post-secondary). Arguably, the Canadian commitment to "open federalism" made the Australian approach difficult to replicate here since it would have involved embarking on projects that were under provincial jurisdiction.

The second comment is related. In the new global order, several areas that fall under provincial jurisdiction are increasingly in the national interest. And many of these – cities, daycare, post-secondary education, research chairs, and the like – are much closer to the Martin vision than to the Harper vision of the federal government's priorities and are likely to undermine aspects of the rationale for "open federalism." My view is that open federalism has not been flexible enough to recognize and act upon the reality that in our increasingly human-capital and information-intensive era, some key areas within provincial jurisdiction are also in the national interest.

As these reflections were being written, Finance Minister James Flaherty resigned and then suddenly passed away. While his initial period as finance minister was shaky at times (e.g., the 2008 autumn Economic Statement that led to the controversial prorogation), his legacy as a deficit fighter and an economic overseer is assured since he brought Canada back from a stimulus-driven $55 billion deficit in fiscal year 2009–10 to a confidently projected surplus for fiscal year 2015–16 (and perhaps even for the current fiscal year) in his February 2014 final budget. More generally and despite our high degree of integration with the US economy, Canada remains fiscally and financially the best performer in the G7, surely testament to Flaherty's sterling performance.

POLITICAL FEDERALISM

The ACCESS model

Far and away my most politically controversial publication was the 1996 ACCESS model (A.156) prepared for the Ontario Ministry of Intergovernmental Affairs (MIA). ACCESS is an acronym for A Convention on the Canadian Economic and Social Systems. The backdrop for the paper was Paul Martin's 1995 budget and in particular the arbitrary and wholly unexpected one-third cut in the CHST transfers. Seemingly adding insult to injury, Finance Minister Martin then requested that the provinces join Ottawa in developing a set of "mutual-consent" principles to underpin social Canada. Surprisingly, the provinces took up the challenge by revitalizing the Annual Premiers' Conferences and creating the Ministerial Council on Social Policy Renewal and Reform that led, in turn, to the Council's most impressive *Report to Premiers* (1995). Embodying 15 principles designed to underpin social Canada, this report was not only a major impetus for the creation of the Canada Child Tax Benefit in 1998 but, as well, for the creation of the federal-provincial Social Union Framework Agreement (SUFA).

Underpinning all of this on the provinces' part was their recognition that unless and until they began to manage and internalize the policy spillovers from diverse provincial programs, the federal government would continue to invade provincial jurisdiction. In large measure this was my assigned task in ACCESS – to address the policies and processes via which the provinces could assume a larger role in the development and securing of socioeconomic Canada. Drawing on the 15 above-noted social policy principles and an accompanying set of federal principles, ACCESS proposed two models. The first was an "interim model" that was largely federal-provincial in nature, while the second or "steady-state model" was much more interprovincial and decentralized.

On the Wednesday prior to the 1996 Annual Premiers' Conference (APC) in Jasper, I received a call from the Ontario Ministry of Intergovernmental

Affairs that the paper had to be completed and on the bus to Toronto the following day. Apparently over the weekend the paper was translated and bound as a MIA Working Paper. At a Monday luncheon in Edmonton, Premier Klein (host of the Jasper APC) and Premier Harris endorsed ACCESS and proposed to make it centre-stage of the APC agenda. At this point, and drawing from the newspaper reports, Prime Minister Chrétien working with several Liberal premiers mounted a counterattack with the result that on route to Jasper from Edmonton, Premier Brian Tobin announced that "we threw Courchene from the train." And over the APC weekend, the lead editorials in most of Canada's major newspapers condemned ACCESS. The exceptions were limited to a few columnists who welcomed the ideas in ACCESS and, perhaps not surprisingly, Premier Lucien Bouchard.

Intriguingly, the Jasper APC itself charged the Ministerial Council with designing provincial mechanisms and processes in order to develop and promote adherence to national standards. Indeed a number of significant policies enacted in the aftermath of ACCESS were fully in line with the spirit if not the substance of ACCESS: Ottawa's decision to allow the provinces to have rate-and-bracket flexibility under the personal income tax system; the mutual recognition of provincial skills accreditation across provinces; the Alberta-BC Trade, Investment and Labour Mobility Agreement that led to an amendment to the Agreement on Internal Trade; the provincial flexibility allowed in the Canada Child Tax Benefit and in SUFA; and arguably the Harper government's adoption of open federalism.

The division of money and power

A natural extension of the above analysis is whether the existing allocation of expenditures and revenues between Ottawa and the provinces contributes to the stability and resilience of the federation. From the perspective of fiscal year 2005–06, one might have rendered an affirmative verdict since this was the first time in 60 years that Ottawa and each of the ten provinces were all running surpluses, a feat that was repeated in fiscal year 2006–07 (A.251). Beyond the obviously important role played by the then-ongoing economic prosperity, these surpluses on the provincial front arose because the massive 1995 cuts to federal-provincial transfers were offset, inter alia, by the 2004 fiscal agreements (the increase in the level of the Canada Health Transfer, including its 6 percent annual escalation, as well as the significant increase in equalization payments). And on the federal front, surpluses remained the order of the day in spite of the fact that Ottawa reduced the GST by 2 percentage points on the one hand and had ramped up military expenditures on the other.

Then came the global financial collapse. By fiscal year 2009–10, all of the provinces were again running deficits with Ottawa leading the way with its massive stimulus-driven deficit in the $55 billion range.

However, at the time of writing (early 2014), and as noted above thanks to the efforts of Finance Minister Flaherty, Ottawa is at best one year away from again running a surplus while only Saskatchewan among the provinces is currently in surplus. But there is a more telling federal-provincial story that is emerging (A.286). With an aging population, all three of the open-ended or demand-driven health expenditures – physicians and medical practitioners more generally, hospitals, and pharmaceuticals – fall under provincial jurisdiction. Moreover, all of these areas have powerful political constituencies. Hence the pressures on provincial dollars are to direct them toward financing these *relatively consumption-oriented activities at the expense of financing relatively investment-enhancing activities* (such as post-secondary education where tuition fees have risen dramatically). This is a very problematic economic strategy in an increasingly human capital and informatics era.

In sharp contrast, not only is Ottawa in the enviable position of having the most robust fiscal position of the G7 countries and, as noted, seems certain to achieve budget balance in fiscal 2015–16, but its expenditure responsibilities are much more amenable to financial control than are the provincial expenditure responsibilities. Examples are easy to come by: Ottawa has increased the retirement age for OAS to 67; the EI program is currently running a significant surplus and is fuelling the return to federal budget balance; the decade-long 6 percent escalation in the Canada Health Transfer will henceforth grow in line with a three-year average nominal GDP growth (subject to a 3 percent minimum); equalization is constrained to grow in line with nominal GDP, and so on. In other words, Ottawa has been able, in varying degrees, to "close" the open-ended nature of many of its transfer and expenditure programs.

This juxtaposition of the provinces wrestling with rapidly expanding, open-ended programs and of Ottawa strategically decreasing the demands on its consolidated revenue fund from its potentially open-ended federal programs is striking evidence of the failure of the federal-provincial surplus-recycling mechanism. The time has come to rethink the division of money and power in the federation.

The two polar solutions are clear: (1) Ottawa transfers more money to the provinces (e.g., by converting a GST point or two into revenue-tested transfers to the provinces along the lines outlined in an earlier footnote), and/or (2) the provinces transfer some powers to Ottawa (e.g., the 2004 Council of the Federation proposal for Ottawa to accept responsibility for pharmacare). Alternatively, Ottawa could move in the direction of increasing its role in providing income support to low-income Canadians or of developing an income-contingent repayment plan for financing post-secondary education. While these alternative possibilities have been addressed in my writings at various times and in various places, the best source is "Surplus Recycling and the Canadian Federation" (A.286). The underlying fiscal message here is that the failure to come to grips with this growing divergence in the expenditure-revenue balance (federal-provincial and interprovincial) may also serve to exacerbate the earlier-noted challenge to the stability and resilience of the federation.

THE NEW GLOBAL ORDER

The Informatics Era

In arguably my most comprehensive work, *A State of Minds: Toward a Human Capital Future for Canadians* (2001, B.3), I attempt to spell out the implications of ultra-globalization and the information revolution for citizens, markets, and governments. Underpinning the Informatics Era is a transformative general-purpose technology the heart of which is the Internet that, in turn, is the basis for networks, the ubiquitous organizational form of our time. On the citizen front, social networking allows instantaneous global communication, in effect ushering in McLuhan's global village. And global supply chains, another application of networking, are well on their way to internationalizing production and ushering in a era where work becomes highly mobile but workers do not.

Accompanying this was and is an economic policy revolution spearheaded by Reagan and Thatcher that ushered in "unfettered global capitalism" and the articulation of the Washington Consensus – liberalization, deregulation, privatization, and free markets. In turn this led to Dani Rodrik's challenge: How do we ensure that this dramatic increase in international integration does not lead to domestic social disintegration? The ultimate irony here may be that it is in the United States itself where the fabled American Dream has given way to entrenched societal inequality, as articulated in "Rekindling the American Dream" (A.277).

The major thrust of *A State of Minds* is that human capital is to the Informatics Era what physical and financial capital was to the Industrial Era. Or, as Lester Thurow stated in an op ed in the *Toronto Star* (1993, 5):

> If capital is borrowable, raw materials are buyable and technology is copyable, what are you left with if you want to run a high-wage economy? Only skills, there isn't anything else.

The message of the book is clear: in the Informatics Era the mind of the Canadian state should be on the state of the Canadian minds!

North American integration and Ontario as a North American region state

As noted above, globalization and the knowledge/information revolution ushered in a new socioeconomic order with profound and pervasive implications for citizens, governments, and markets and, therefore, for public policy (B.3). On the globalization front, like almost all economists I was in favour of the Free Trade Agreement and later NAFTA. However, I limited my research role on this issue to two publications: "FTA at 15, NAFTA at 10: A Canadian Perspective on North American Economic Integration" (A.216) – this was my 2002 presidential address to the North American Economics and Finance Association; and *Thinking North America* (E.27), which I co-edited for the IRPP Art of the State series. Rather, my focus was on two other related features of the new North American economic order.

The first of these was the dramatic shift, post-FTA, in Canadian trade from an east-west or interprovincial axis toward a north-south, Canada-US axis. In 1989, the first year of the FTA, only Ontario and Newfoundland exported more to the United States than to the rest of Canada. By 2001, all provinces except Manitoba exported more to the United States than to each other. In aggregate, Canada's US trade went from 18.6 percent of GDP in 1989 to 37.6 percent in 2001 whereas interprovincial trade fell from 22 percent to 19 percent over this period. My conclusion at the time was that Canada was becoming less and less a single east-west economy and more and more an east-west series of north-south trading regions/economies. This observation led to my 1998 Donner Prize–winning monograph on Ontario with Colin Telmer (*From Heartland to North American Region State,* B.2) that envisioned the province under the Mike Harris Progressive Conservatives as carving out its economic future within NAFTA economic space.

A second development – namely, the evolution of global city regions as the dynamic motors of the new global order and in particular of the knowledge-based economy – was key to Ontario's emergence as a North American region state. The Greater Toronto Area with its dense concentration of human capital, R&D, high value-added business services, world-class banking and entertainment centres, and so forth constitutes the requisite integrating and coordinating networks to link Ontario with the international networks that drive trade, growth, innovation and, ultimately, productivity (A.187 and A.234). These papers view Ontario and Toronto as international economic powerhouses operating in NAFTA economic space rather than viewing them as dominant players in the east-west Canadian economic space and, relatedly, as the principal places to redistribute from.

Prior to elaborating on why and how this vision became sidelined, it is important to note that Canada's cities are ill-suited to play the dynamic integrating and innovating role of the leading global city regions. This is because our cities are constitutionally jurisdictionless in the Canadian context (i.e., they are creatures of the provinces) and, limited as they are to property taxation, they are fiscally weak in comparative international context (A.234). Viewed from a different vantage point, the principle of subsidiarity is truncated in the Canadian context with the result that decentralization in Canada effectively stops at the provincial level, which in turn means that our cities are less dependent on the desires of their citizens and the demands of the global economy than on the dictates of their provincial financiers.

But then something totally unexpected happened …

China in ascendancy

Out of nowhere, it seems, China became the workshop of the world and the world's largest exporter. Drawing from my recent IRPP essays (A.277 and A.283), I argue that foremost among the factors that led to this economic miracle was China's recognition that it lacked the internal capital markets that could allocate domestic and foreign investment toward their most productive uses. Accordingly, and in the form of a brilliant and unprecedented economic initiative, China invited the global capital markets and global enterprises to do this internal allocation for it. In other words, China's recent surge in production was, at the outset, driven by global prices and by international comparative advantage working in tandem with the inexpensive, effective, and inexhaustible Chinese labour force. What was required of these foreign enterprises was to link up with Chinese partners and to share technology and industrial secrets with them. From the perspective of the foreign enterprises, the advantage of increased competitiveness in exporting to the rest of the world from China, and of gaining access to the world's fastest-growing domestic market, obviously outweighed the costs of China's requirements.

As a result, by 2008 the world's most populous country, with a per capita GDP of only US$3,500 (compared with $46,000 for the United States), had become the world's largest exporter, surpassing Germany. More recently, China passed Japan to become the second-largest economy in terms of GDP. And as more of its labour force is brought into the market economy, it is just a matter of time before China becomes the largest global economy and the world's largest importer.

Every bit as astonishing, although fully consistent with the US constitutional rhetoric, namely "Life, Liberty and the Pursuit of Happiness," was the wholesale hollowing of corporate America as entrepreneurs transferred production and employment to China. In my IRPP Policy Horizons essay (A.277), I trace the transition of America from the postwar global economic hegemon to the 2008 financial collapse and the US drift into indebtedness and societal inequality. While Canada as a resource-rich country benefited from the demands for our exports associated with the rise of China (and Asia and India), the downside was the earlier-noted Dutch disease in tandem with the US shift toward Chinese imports and the collapse of the American automobile industry, both of which served to undermine Canadian manufacturing and the conception of Ontario as a North American region state, as is emphasized in the contribution by Ripley and Clarkson (this volume). Note, however, that this trend may be in the process of being offset somewhat, given that the recent rapid surge in wages in China and the appreciation of the yuan have given rise to a "re-shoring" of US production and employment. More generally, the economic future for Ontario and Canada should become considerably brighter if and when the US recovery is in full swing. Offsetting this optimism is the reality that Ontario's recent policy decisions have served to undermine its economic future.

CARBON PRICING AND FEDERALISM

Although the environment and carbon pricing can make a legitimate claim to be among the most pressing challenges of our generation, it was only recently that they attracted my attention and then for reasons related more to the fact that Canada's existing approach of having the provinces take the lead on these issues leaves much to be desired. While the provinces, especially British Columbia with its carbon tax, deserve high marks for their carbon-pricing initiatives, Ottawa needs to play an overarching role because a series of provincial pricing schemes will of necessity fall short in several dimensions. This is so for at least three reasons: (1) the substantial revenues that would arise if the energy-rich provinces levied upstream carbon taxes would severely exacerbate the already troublesome degree of fiscal disparities across provinces; (2) provinces cannot constitutionally prevent "carbon leakage" (i.e., they cannot apply carbon pricing on the CO_2 emissions produced prior to goods entering the province whether from other provinces or internationally); and (3) CO_2 emissions affect all Canadians more or less equally, and therefore carbon-pricing revenues should be assigned more or less equal equally across Canadians.

Accordingly, John Allan and I (A.253, A.268) proposed a nationally run carbon-added tax (CAT) that would operate like a value-added tax (VAT); it would apply the carbon tax at each stage of production and provide rebates on the carbon tax on inputs utilized at each stage. These carbon taxes would cumulate and the total would be paid at the final use level. The accumulated carbon tax on exports would be rebated, and the carbon tax would be applied to the carbon content of imports (including the greenhouse gases arising from ocean shipping that Kyoto completely ignores). In other words, the carbon tax would be export-import neutral so that Canada could "go it alone" without affecting its international competitiveness. Some of the revenues would be allocated to low-carbon-technology research and perhaps to a low-income carbon-tax credit, with the remainder distributed to the provinces on an equal-per-capita basis across the provinces, as noted above. To be sure, it might be possible for the provinces to work together to implement such a scheme (via, say, the Council of the Federation) with Ottawa cooperating by ensuring export-import neutrality.

However, because a CAT would be very data intensive, corners would obviously have to be cut, and some research by others is already ongoing in this direction. The underlying message is that a CAT provides a conceptual carbon-pricing model in much the same manner as perfect competition provides a conceptual economic model.

NATIONAL UNITY AND *DEUX NATIONS*

The spirit of section 94

As was the case for many Canadian social scientists and constitutional scholars, my normal research interests were overtaken on several occasions by the national unity challenge. Interested readers will find more than a dozen publications in my appended CV on Quebec-Canada relations running the gamut from the 1980 Quebec Referendum through to the House of Commons near-unanimous proclamation that "the Québécois form a nation within a united Canada." Indeed, I have long been in favour of a *deux nations* vision for some key features of Quebec-Canada relations. For example, in my presentation to Quebec's Bélanger-Campeau Commission in 1991 (A.114) I asserted, and still believe, that "for Quebecers, Quebec will always be their nation and Canada will always be their state whereas, for the rest of us, Canada (Ottawa) is generally viewed as the locus of both nation and state."

Among the factors that breathe life into the *deux nations* issue, two are particularly important. The first is that Quebec is linguistically, culturally, and legally distinct from the other provinces, the formal recognition of which at the provincial level was articulated in the 1997 Calgary Declaration that was passed in all nine provincial legislatures (and can be viewed as the provincial precursor to the House of Commons proclamation noted earlier that the Québécois form a nation within a united Canada). The second is that "property and civil rights" (s. 92(13) of the Constitution) is a very expansive head of power. This raises the likelihood, indeed the reality, that Quebec may want to exercise power over aspects of property and civil rights that the other provinces may prefer to assign to Ottawa.

While I am neither a political historian nor a constitutional lawyer, I have nonetheless viewed section 94 of the Constitution as conceptualizing a way out of this dilemma since it suggests that the common-law provinces (all but Quebec, which is a civil-law province) may want to transfer control over aspects of property and civil rights to Ottawa. Specifically, and in the words of the Constitution, section 94 allows the Parliament of Canada to "make Provision for the Uniformity of any and all of the Laws relative to Property and Civil Rights" in the common-law provinces if these provinces so wish. As LaSelva (1983) has noted, this provision might best be viewed as an amendment formula for the nine common-law provinces.

Admittedly, the precise process for these upward transfers may draw on sections of the Constitution other than section 94. It is for this reason that the title I have chosen for this section reads "The *Spirit* of Section 94." Alternatively, and drawing on recent central banking terminology, section 94 may be viewed as "constitutional forward guidance."

The most obvious program where these nine common-law provinces have unified a program under Ottawa's management, and where civil-law Quebec has established its own program, is the Canada Pension Plan/Quebec Pension Plan (CPP/QPP) combination. Indeed, as if to directly indicate that this was fully in the spirit of section 94, the Constitution designates the amendment associated with the CPP/QPP as section 94A.

A more recent proposal was also fully in line with the spirit of section 94: at the 2004 meeting of the Council of the Federation there was unanimous agreement that the nine common-law provinces would transfer to Ottawa the responsibility for pharmacare, with Quebec maintaining its own system and receiving equivalent federal compensation. Ottawa declined the invitation, but this does not deter from the point at issue.

Another example has already been alluded to, namely, that Quebec has its own personal income tax system whereas the other provinces choose to link up with the overarching federal PIT system. Now that Ottawa has allowed provincial rate and bracket flexibility, it is less likely that other provinces will follow Quebec's lead and opt for a separate PIT.

Under the Constitution, immigration is a shared responsibility and it is another area where there is a Quebec/rest-of-Canada division: Quebec has its own immigration department while the other provinces operate within a federal framework. It might be noted that in order to allow the common-law provinces more say in immigration, Ottawa has recently introduced Provincial Nominee Programs for all provinces except Ontario.

The most recent example of a section 94–related initiative was Quebec's successful request to obtain control over the parental benefits component of Employment Insurance. Since UI/EI is in the federal domain (thanks to a 1950 constitutional amendment), Quebec cannot take over EI. However, the parental benefits component was added recently, and Quebec argued that parental benefits fall under "property and civil rights" and are not an inherent part of EI. This is a reverse section 94, as it were – Quebec has repatriated a "property and civil rights" program from the federal EI system whereas the common-law provinces are happy with the status quo.[6]

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[6] After Ottawa agreed to transfer parental benefits to Quebec, the courts ruled that parental benefits did fall under the definition of employment insurance. However, in the time frame of the decision the federal rationale for downloading parental benefits presumably was that they probably did fall under property and civil rights and were not an inherent component of unemployment insurance.

Moreover, Ottawa is transferring to Quebec the portion of EI contributions made by Quebecers in relation to parental benefits.

All of the above examples speak to the *deux nations* reality within Canadian federalism. While including the expansive clause "property and civil rights in the province" as section 92(13) of the Constitution was essential to bring Quebec into Confederation (and especially so since it was included in the 1774 Quebec Act), the founding fathers are to be congratulated for having had the foresight to anticipate that the common-law provinces would want to unify aspects of property and civil rights under federal management; that is, they would want to also create their own "national programs" (in the *deux nations* sense).

Deux nations and opting out

By way of concluding these reflections on the Quebec/Canada issue, it is important from my perspective to recognize that it has been most inappropriate for Canadians to assert that Quebec is "opting out" of program x or program y, implying that Quebec is seeking and receiving special status. Rather, the reality is that if a province operates a program that falls within its constitutional jurisdiction, it cannot be said to be opting out of that program. Indeed, what has happened with the CPP/QPP, with immigration, with the proposed pharmacare transfer, among other areas, is that *the rest of Canada has "opted in" to an overarching federally run program*. As I have noted elsewhere (A.283, note 4), much political harm has been done by perennially referring to Quebec as "opting out" when the program or programs in question fall within provincial jurisdiction.

While Quebec is clearly a "states rights" province and is distinct in terms of its language, culture, and legal framework, the reality is that much of its ongoing policy distinctiveness arises because the rest of Canada has embraced the spirit of section 94 and has opted to unify (i.e., transfer upward) several key social programs to be run on the provinces' behalf by Ottawa. Hence, much of Quebec's uniqueness within Canada is due to the preference of the common-law provinces for having their own "national" programs.

Indeed, we Canadians ought to congratulate ourselves for mastering the art of federalism: our governments have worked together and legislated creatively in ways that are allowing Quebecers and the rest of Canadians to create their own nations within the framework of the Canadian state. Arguably, this is the message that can be drawn from the 2014 Quebec election.

Now, if this degree of creative federalism were also true for our first peoples…

FIRST PEOPLES

Although I was one of the editors of an IRPP volume on Canada's north (*Northern Exposure: Peoples, Powers, and Prospects in Canada's North*, E.29), it is with considerable embarrassment that I have authored only one publication that directly addresses Canada's first peoples – *A First Nations Province* (B.18, with Lisa Powell). As the title suggests, the monograph argued for a single pan-Canadian First Nations' province that would become one of the three orders of government and would be endowed with the full range of provincial-type powers, revenues, and relations with other levels of government. It would be a confederal province within federal Canada since the ultimate power would reside with the individual First Nations and not with any overarching governing body. At the time of the publication of *A First Nations Province*, a similar model was under consideration in the Yukon with the intention of completing land claims and self-government agreements for each of the 14 Yukon First Nations within an overarching (but not very powerful) Council of Yukon First Nations (CYFN). I was privileged to serve as the fiscal adviser to CYFN for the completion of the first four Yukon First Nations' self-government agreements.

While the Yukon model would be far too costly to apply to each of Canada's 600 or so First Nations, it seems to me that there would be sufficient economies of scale to apply it to, say, a provincewide organization such as the Federation of Saskatchewan Indian Nations (FSIN) with its 70-odd First Nations and well over 100,000 registered citizens. Indeed, this is my current research interest. In essence, Aboriginal Affairs and Northern Development Canada would transfer all its responsibilities (programs, funding, etc.) relating to these 70 First Nations to FSIN as an overarching centre of governance. While this reconstituted FSIN would be confederal in nature – since the individual bands are where power ultimately resides – efficiency issues would dictate that the existing half-dozen or so tribal councils would likely emerge as the effective internal organization structure. The essential point is that the societal challenge to ensure that the 144,000 Saskatchewan First Nations citizens have access to the same range of opportunities as the rest of Canadians requires organizational structures that are of sufficient size and scope to reap the benefits of decentralized self-government.

INSTITUTES AND EDITED VOLUMES

For much of the time since the early 1980s, I have served as the director of an institute or the chair of an organization where a key part of my role was to organize conferences and edit the proceedings. The results of this activity are the 34 edited books in the attached CV. Although I already miss the challenge of organizing conferences, I am thankful that I was able, by my count, to publish the papers of over 700 scholars. To be sure, I did skimp a bit in that most of my introductions to these volumes took the form of summaries rather than integrative essays.

Ontario Economic Council (OEC), 1982–85

Quite unexpectedly, although no doubt due to the influence of Tom Kierans (and perhaps my candidacy for the Joe Clark Tories in the 1979 federal election), I was appointed as chair of the Ontario Economic Council in 1982. In addition to authoring four OEC position papers (B.27–B.30), I edited (or co-edited) OEC volumes on deficits, the internal economic union, pensions, federalism, trade, public sector compensation, and universities (E.1–E.7).

C.D. Howe Institute

As should already be evident, the C.D. Howe Institute was the primary vehicle for my entrée into Canadian public policy – the longitudinal cross-section migration study, the five-volume monetary policy series, the Purvis–prize-winning social policy book, the exchange-rate study with Rick Harris, several publications focusing on Quebec-Canada relations, among others. For nearly two decades I was the Institute's Senior Fellow. I remain grateful for the mentoring and encouragement of the Howe presidents, especially Carl Beigie, Tom Kierans, and Wendy Dobson.

John Deutsch Institute for the Study of Economic Policy (JDI), 1993–99 and 2001–02

One of the duties of the Jarislowsky-Deutsch Professor was to become involved with the operations of the JDI, and this explains my role as director over most of the 1993–2002 period and the editor of 15 JDI volumes (E.10–E.11 and E.13–E.25). The topics generally fell within macroeconomics – federal budget assessments, fiscal policy, three financial regulation volumes, plus the six-volume *Bell Canada Papers on Economic and Public Policy*. Most special for me was the organizing and publishing of the proceedings of the conference *Money, Markets and Mobility: Celebrating the Ideas of Robert A. Mundell* (E.19). The dual occasion was to honour Kingston-born Bob Mundell's Nobel Prize in Economic Sciences and his receiving a Queen's Honorary Doctor of Laws.

Queen's Institute of Intergovernmental Relations (IIGR), 2006–09

During my four-year tenure as director of the IIGR, I was fortunate to team up with John Allan as my associate director, my co-author of several

Policy Options articles, and my co-editor (with others) of four edited books (E.30–E.33) on fiscal and political federalism, carbon pricing, open federalism and the spending power, and the Ronald L. Watts Festschrift.

Institute for Research on Public Policy (IRPP)

In 1999 IRPP president Hugh Segal invited me to become IRPP's Senior Scholar, a position that I have held for nearly 15 years. I was doubly privileged when *Policy Options* editor L. Ian Macdonald brought me on board as a contributing writer for the journal. As a result I have spent much of the years analyzing Canadian policy in real time, as it were – the already noted Martin budget assessments, "Confiscatory Equalization," the health-care essay on Romanow vs. Kirby (A.214), and the 34 articles in *Policy Options*. While *Policy Options* articles tend to be discounted by our profession because the journal is not refereed by outsiders, these articles have nonetheless been among my most policy relevant publications and have served as the mainstay of my graduate Canadian Economic Policy course. On the conference/editorial side, I was likewise fortunate to have been a co-editor of the first four of IRPP's Art of the State conference volumes: *Governance in a World Without Frontiers* (E.26), *Thinking North America: Pathways and Prospects* (E.27), *Belonging? Diversity, Recognition and Shared Citizenship in Canada* (E.28), and *Northern Exposure: Peoples, Powers and Prospects* (E.29).

ACKNOWLEDGEMENTS AND APPRECIATION

Finally, I want to take advantage of these professional reflections to recognize and acknowledge some of the many people who have played key roles in my career. In the context of this celebratory volume, words cannot begin to capture the honour bestowed upon me by the impressive roster of authors who devoted their time and effort in the middle of an academic term to make the conference and this volume possible. In this regard I gratefully recognize the incredible effort that Keith Banting, Rick Chaykowski, and Steve Lehrer expended in initiating and organizing the conference and then editing the proceedings. I extend a heartfelt thank you to the School of Policy Studies events coordinator Chris Cornish for orchestrating everything, to the school's then director Peter Harrison, and to IRPP and Tom Kierans and Mary Janigan for financially supporting the conference and the associated banquet.

Over the years I have been most fortunate to have had access to an influential group of mentors/co-authors. Beyond those already mentioned it is a pleasure to recognize the role played during my undergraduate years by Ed Safarian, then a professor at the University of Saskatchewan. Not only was he instrumental in getting me into Princeton but as well he wetted my appetite for economic research by hiring me as his research assistant prior to my leaving for graduate school. My PhD supervisor, Ed Kane, did much more than oversee the analytic aspects of my thesis: his continual emphasis on the written word as well as on the economic substance was taken to heart.

Throughout my career I was privileged to be in the company of generous and influential colleagues: among others, Grant Reuber, Jim Melvin, Russ Robinson, Bob Young, Scott Clark, as well as my undergraduate student and later mentor Paul Boothe … (Western); David Smith, Doug Purvis, John White, Keith Banting, Robin Boadway, Rick Harris … (Queen's) and Bob Mundell (Chicago). I must also thank my Queen's and Western colleagues for ensuring that I was never allowed to become a department head. To be sure, this could not be avoided since my move to Queen's was predicated on my becoming director of the new School of Policy Studies. However, during my short time in this position, not only did the SPS have no other faculty members but as well I was fortunate to have had Art Stewart as my administrative assistant.

Along similar lines I had the good fortune of linking up with several creative and diligent co-authors/co-editors. Those not mentioned earlier in other contexts include Donald Savoie, Tom Wilson, Ted Neave, Frances Abele, Nadia Verrelli, Christian Leuprecht, Marc-Antoine Adam, Alex Kelly, Harvey Sims, Glen Copplestone, Charles McLure Jr., Doug Brown, and no doubt others. I would be remiss not to extend my sincerest thanks to University of Toronto's Andrew Stark for twisting my arm to write *From Heartland to North American Region State: The Social, Fiscal and Federal Evlution of Ontario,* the winner of the inaugural Donner Prize for the best public policy book of the year (1998).

In terms of my association with various institutes, I received dedicated support from David Conklin, Gail Cook, and Sharon Wahl (Ontario Economic Council); Carl Beigie, Wendy Dobson, and Angela Ferrante (C.D. Howe Institute); Hugh Segal, Ian Macdonald, Graham Fox, Jeremy Leonard, Tyler Meredith, Leslie Seidle, Mel Cappe, and especially France St-Hilaire (IRPP); Sharon Sullivan (JDI); John Allan and Mary Kennedy (IIGR); Lynn Freeman (SPS); and James MacKinnon, Economics head, who allowed me the privilege of holding the Jarislowky-Deutsch Chair for so long. Two people have been especially instrumental – Sharon Alton for essentially serving as my executive assistant for my entire time at Queen's and, on the intellectual front, Tom Kierans for guiding me through my OEC and C.D. Howe years and for hosting (with Mary Janigan) Margie and me for nigh on 20 years at our annual August public policy weekend.

Finally, and most importantly, none of this would have been possible without Margie at my side all the way. We were married in June 1962 just after I graduated with an Honours BA in economics from U of S and after Margie finished her first year. We left for Princeton in August after Margie completed a summer school introductory economics course taught by a rather special U of S graduate student – future Bank of Canada governor

Gordon Thiessen. Thanks to Margie's lifelong interest in economics, her eclectic reading and her MAs in French literature and journalism, she has had a profound influence on my policy work throughout my career: my work on Quebec, the Aboriginal file, inequality, human capital, and early child development were largely at her urging. And it was her decision that we ought to give something back to Queen's that led to the creation of a School of Policy Studies Endowment Fund in Public Policy. In this regard we are grateful to the many people who have contributed to the fund. And needless to say, we were at the same time astonished and thrilled when Tom Kierans and Mary Janigan matched our own contribution to this endowment.

My professional life and my personal life were never segmented in that I have always done all my research and writing at home. Margie and I have had the joy of watching our three children grow up and now we have the privilege of a close and rewarding relationship with our nine grandchildren. Indeed, my last official Queen's function prior to retiring was to hood one of our grandchildren at his Queen's graduation. Relatedly, as an adjunct professor in the Economics department in the 2014 winter term, I had the pleasure of having another grandchild enrolled in my fourth-year Canadian economic policy course (with thanks to my colleague Charlie Beach for marking his exams).

We have been happy professionally and personally in the stimulating and nurturing environment that is Queen's and Kingston, and we plan to continue our life in our Cape Cod home along the St. Lawrence. While I doubt that I have miles to go before I sleep, I am continuing my academic research, albeit at a slower pace.

In conclusion, Margie and I are truly honoured by and deeply appreciative of the generosity and commitment of the conference organizers, presenters, and session chairs and the editors of this volume. We express our sincerest thanks to everyone who has contributed to the conference, banquet, and volume. We will cherish these memories always.

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CURRICULUM VITAE
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Born: September 16, 1940, Wakaw, Saskatchewan

Spouse: Margaret
Three children: Robert (1963), Teresa (1964), John Joseph (1969)
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UNIVERSITY EDUCATION:	DEGREES:
University of Saskatchewan, 1958-1962	Hons. B.A., 1962
Princeton University, 1962-1965	Ph.D., 1967
Post-doctoral Fellow, University of Chicago	1968-1969

PH.D. THESIS:

Inventory Behaviour and the Stock-Order Distinction: An Analysis by Industry and Stage of Fabrication with Empirical Application to the Canadian Manufacturing Sector, Department of Economics, Princeton University, 1967.

EMPLOYMENT AND PROFESSIONAL EXPERIENCE:

Research Assistant for Professor A.E. Safarian, University of Saskatchewan	Summer 1962
Research Assistant for Professor R.A. Musgrave, Princeton	Summer 1965
Lecturer in Economics, University of Western Ontario	1965-1966
Assistant Professor, University of Western Ontario	1966-1968
Associate Professor, University of Western Ontario	1968-1970
Post-Doc Fellow, University of Chicago	1968-1969
Professor of Economics, University of Western Ontario	1970-1988
Research Associate, University of Toronto (Professor, Quantitative Analysis Course, Ottawa)	May- Dec. 1971
Member, Editorial Board, *Journal of Money, Credit and Banking*	1970-1972
Member, Editorial Board, *Canadian Journal of Economics*	1970-1973
Member, Executive Committee, Canadian Economics Association (Chair: Committee on Development Strategy)	1971-1974
Professor in Residence, Graduate Institute of International Studies, Geneva	1975-1976
Director of Graduate Studies, Department of Economics, University of Western Ontario	1974-1975, 1978-1980
Visiting Professor, Queen's University, Kingston	1982-1983
Chairman, Ontario Economic Council	1982-1985
Visiting Professor, École national d'administration publique (ENAP), Montreal	1986
Robarts Chair of Canadian Studies, York University	1987-1988
Stauffer-Dunning Chair of Policy Studies, Queen's University	1988-1991
Inaugural Director, School of Policy Studies, Queen's University	1988-1992
Board Member, Economic Council of Canada	1988-1991
President-elect, Canadian Economics Association (organized 1991 CEA Annual Meetings, Kingston)	1990-1991
Jarislowsky-Deutsch Professor of Economic and Financial Policy, Queen's University	1991-2012
President, Canadian Economics Association	1991-1992
Visiting Fellow, Australian National University	10 months over 1993-1995
Visiting Scholar, Centre for European Integration University of Bonn, Germany (2 months)	1998
Senior Fellow, C.D. Howe Institute	1980-1999
Visiting Scholar, The Canadian Institute for Research on Regional Development, University of Moncton (6 weeks)	June 2001
President-elect, and Program Chair, Annual Meetings, North American Economics and Finance Association (NAEFA)	2000-01
Director, John Deutsch Institute for the Study of Economic Policy (Queen's Economic Dept.)	1993-99, 2001-02

Visiting Professor, University of Toronto Law School	2002 (October)
President, North American Economics and Finance Association (NAEFA)	2002
Senior Scholar, Institute for Research on Public Policy (IRPP), Montreal	1999+
Director, Institute of Intergovernmental Relations, Queen's University	2006-2009
Member, Board of the McGill Institute for the Study of Canada	2010-2013
Retired from Queen's University	June 30, 2012

AWARDS/DISTINCTIONS/SCHOLARSHIPS:

High School:	Governor General's Bronze Medal (1958)
Undergraduate:	Union Carbide Scholarship (1958, 1959, 1960, 1961) World University Service of Canada (Fellowship to Sweden, Summer 1961) Economics Honours Bursary (1961)
Graduate:	Woodrow Wilson Fellowship (1962) Rothschild Fellowship (Princeton, 1963) Woodrow Wilson Dissertation Fellowship (1964-1965)
Post-Graduate:	Canada Council Post-Doctoral Fellowship (1968) Political Economy Fellowship (University of Chicago, 1968), post-doctoral Leave Fellowship (Canada Council) – spent in France and Geneva (1975-1976)

1980 The Innis Memorial Lecture to the Canadian Economics Association ("Towards a Protected Society: The Politicization of Economic Life")

1981 Fellow of Royal Society of Canada

1995 The C.D. Howe Benefactor's Lecture ("Celebrating Flexibility")

1995 Douglas Purvis Prize
for the best economic policy publication in 1994 (*Social Canada in the Millennium)*

1997 Honorary Doctor of Laws, University of Western Ontario

1998 York University's John Robarts' Lecture (*What Does Ontario Want?*)

1999 Donner Prize
The inaugural Donner Prize for the best public policy book published in 1998 (*From Heartland to North American Region State: The Social, Fiscal and Federal Evolution of Ontario*)

1999 Inducted as an Officer in the Order of Canada

1999 The Mabel Timlin Lecture, University of Saskatchewan. Led to book B.3 listed below.

2000 Canada Council Molson Prize (Lifetime Achievement in the Social Sciences)

2000 Honorary Doctor of Laws, University of Saskatchewan

2001 Eaton Lecture, Queen's University, Belfast

2007 Honorary Doctor of Laws, University of Regina

2007 The Inaugural Harry Kitchen Lecturer, Trent University Economics Department

2007 Selected as one of the *100 Alumni of Influence* for the celebration of the University of Saskatchewan's first century, spring 2007

2009 Selected an one of the *100 Alumni of Influence* for the celebration of one hundredth anniversary of the University of Saskatchewan's College of Arts and Science

2011 The 2011 Killam Lecture, Ottawa

2011 The 2011 (Inaugural) IRPP Policy Horizons Essay, "Rekindling the American Dream: A Northern Perspective"

2012 IRPP's 40th Anniversary Essay, "Policy Signposts in Postwar Canada: Reflections of a Market Populist"

2014 School of Public Policy, University of Alberta: Commemorative Plaque celebrating my pioneering work on Canada's equalization system

I: AUTHORED BOOKS AND MONOGRAPHS:

Public Policy (General)

B.1. *Re-Arrangements: The Courchene Papers*, edited by Marcel Côté (Toronto: Mosaic Press, 1992).

B.2. *From Heartland to North American Region State: An Interpretative Essay on the Social, Fiscal and Federal Evolution of Ontario*, with Colin Telmer (University of Toronto: Centre for Public Management, 1998). This book won the inaugural Donner Prize for the best public policy book published in 1998.

B.3. *A State of Minds: Toward a Human Capital Future for Canadians* (Montreal: Institute for Research on Public Policy, 2001).

Monetary Policy/Financial Structure

B.4. *Money, Inflation and the Bank of Canada. An Analysis of Canadian Monetary Policy from 1970 to Early 1975* (Montreal: C.D. Howe Research Institute, 1976), 282 pp.

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W.M. Scarth, "Monetarism and Income Controls: A Review," *Canadian Public Policy/Analyse de Politiques,* Vol. III, No. 2 (Spring 1977), 243-48.

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B.7. *Money, Inflation and the Bank of Canada Volume II: 1975-80* (Montreal: C.D. Howe, 1982), 321 pp.

Review of the Book

John S. McCallum, *Canadian Public Policy/Analyse de Politique,* VIII.3 (Summer 1982), 398-99.

B.8. *No Place to Stand? Abandoning Monetary Targets: An Evaluation* (Toronto: C.D. Howe Institute, 1983).

B.9. *Ontario's Proposals for the Canadian Securities Industry*, with John Todd and Larry Schwartz (Toronto: C.D. Howe Institute, 1986).

Fiscal Federalism/Constitutional

B.10. *Refinancing the Canadian Federation: The 1977 Fiscal Arrangements Act* (Montreal: C.D. Howe Institute, 1979).

B.11. *Equalization Payments: Past, Present and Future* (Toronto: Ontario Economic Council, 1984), 433 pp.

B.12. *Economic Management and the Division of Powers*, Vol. 67 of the Background Studies for the Royal Commission on the Economic Union and Development Prospects for Canada (Toronto: University of Toronto Press, 1986).

B.13. *What Does Ontario Want? The Coming of Age of Robarts' Confederation of Tomorrow Conference*, 1988 Robarts Lecture, (Robarts Centre for Canadian Studies: York University, 1989).

B.14. *In Praise of Renewed Federalism* (Toronto: C.D. Howe Institute, 1991), 112 pp.

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Michael Stein, *Canadian Public Policy/Analyse de politiques*, XVII, no. 4 (December 1991), 507-11.

B.17. *The Community of the Canadas* (Kingston: Institute of Intergovernmental Relations, Queen's University, 1991). This is an updated version of La communauté des Canadas, article A.117 below.

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B.19. *Celebrating Flexibility: An Interpretive Essay on the Evolution of Canadian Federalism*, The C.D. Howe Benefactors Lecture (1995). Available in French (*Célébrer la souplesse*).

B.20. Group of 22, *Making Canada Work Better* (Member of Group of 22), 1996.

Social Policy

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