
Unfinished Business

Reflections on Canada's Economic Transformation and the Work Ahead

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A Canadian Century?

For virtually its entire history, Canada has lived in the shadow of the behemoth to its south: the more populous, more economically vibrant, and more globally assertive United States. In fact, it could even be said that Canada's national psyche is marked by a nagging inferiority complex vis-à-vis the United States, a trait captured in the saying "To be Canadian is to be not American."

However, as the twenty-first century approaches its third decade, a well-governed, resource-rich, and xenophilic Canada is beginning to forge its own identity, even surpassing the United States in some areas. For instance, the Luxembourg Income Study of 2014 found that Canada is now home to the world's most affluent middle class (reported in Austen and Leonhardt 2014). Canada's new global relevance is also evident in the enthusiastic response in the United States and elsewhere to the 2015 election of the youthful, telegenic Justin Trudeau as the country's new prime minister.¹

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1. Tellingly, the official website of Immigration Canada crashed due to a surge in traffic from American visitors on the night Donald Trump clinched the presidential victory.

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Canada is also notable for its robust response to the global financial crisis of 2007–8. The effects of the crisis on Canada’s financial sector were limited thanks to the stability of the country’s prudently managed domestic banking system.² In fact, Canada was the only G7 country that did not bail out or guarantee its banks in the wake of the crisis (Farlow 2013, 322). Moreover, it has been one of only two G7 countries (the other being Germany) to maintain a Triple-A credit rating throughout the postcrisis period. Canada’s conservative federal government, led by former economist Stephen Harper, initiated a multiyear deficit-spending program to mitigate the most severe effects of the global downturn and subsequently managed to bring the federal budget back to a surplus position just prior to ceding power in the fall of 2015. Put simply, Canada’s serene political climate and stable finances make it the envy of virtually every other advanced economy.

Yet Canada’s curve-beating postcrisis performance ultimately reflects a set of transformative fiscal-policy reforms implemented throughout the 1990s, dubbed Canada’s “redemptive decade” (Crowley, Clemens, and Veldhuis 2010). Such reforms included the implementation of a nationwide value-added sales tax, the finalization of a regional trade pact with the United States and Mexico, the restructuring of federal pension and social assistance programs, and large-scale reductions in public spending. Moreover, a number of intrepid provincial and municipal governments have found innovative ways to reduce the burden of public spending on health care, education, and other public services. To my knowledge, the story of Canada’s historic turnaround has yet to be told in its entirety to an international audience.

Accordingly, the purpose of this article is to provide an objective account of that economic transformation and a candid discussion of the problems that continue to hold Canada back economically. I aim to place the hype surrounding Canada’s economic governance under closer scrutiny and therein promote a more measured discourse regarding which aspects of “the Canadian model” should and should not be emulated. On the negative side of the ledger, I cover Canada’s ongoing problems with productivity, innovation, and the governance of natural resources.

The first section of this article recounts gains made during Canada’s redemptive decade, identifying the year 1995 as a critical juncture in the country’s history. The second and third sections, respectively, cover what I consider to be the largest obstacles to Canada’s continued economic development and diversification: its lagging performance in the critical domains of productivity and innovation as well as political obstacles to effective natural-resource governance, concerning in particular the country’s vast petroleum reserves. Finally, I briefly touch on possible policy solutions,

2. The staggered deregulation of the Canadian securities industry during the mid-1980s allowed Canada’s Big Five charter banks to dominate the process. This domination closed the door to foreign competition, facilitating the development of a risk-averse “charter bank culture” (Courchene 2012, 22). Critically, Canadian banks have established some of the world’s most stringent capital-adequacy standards (Gill and Raiser 2012, 30–33).

although I must stress that my primary aim is to elucidate problems facing the Canadian economy, not to prescribe remedies.

The Year That Changed Everything: 1995

With the benefit of hindsight, the year 1995 stands out as the beginning of Canada's historic turnaround. Yet at the time there were few, if any, signs of the imminent reversal of fortunes. In fact, a widely circulated *Wall Street Journal* editorial published in January that year named Canada an “honorary member of the third world” and predicted that it would soon need International Monetary Fund assistance. The piece also warned that Canada could face a currency crisis similar to Mexico's peso collapse of late 1994 (“Canada Bankrupt?” 1995).

The editorial's author, reputedly financial journalist John Fund, could hardly be faulted for his pessimism. Between 1990 and 1995, the Canadian economy had suffered its largest contraction since the Great Depression, accumulating 15.7 point years of excess unemployment³ over this timeframe (versus a 6.3-point-year loss in a recession-hit United States) (Fortin 1996, 762). Canada's “Great Slump” was attributable to a vicious cycle of high interest rates and a ballooning public debt (Fortin 1996, 772),⁴ which led to downgrades by the global bond-rating agencies. The severity of the downturn sealed the political fate of the country's scandal-plagued Progressive Conservative government, which was left with only two seats in Canada's 295-member Parliament following the federal election in the fall of 1993.

Although elected on a platform of deficit reduction (Liberal Party of Canada 1993, chap. 1), the incoming Liberal government, led by veteran politician Jean Chrétien, initially had difficulty breaking old habits. The Chrétien government's inaugural budget, unveiled in February 1994, proposed just a one percent reduction of the annual operating deficit and actually increased program spending. The budget was panned in the media and did little to comfort skittish foreign creditors (Crowley, Clemens, and Veldhuis 2010, 72–73; Martell and Palmer 2011).

To make matters even worse, the fragile French–English truce that undergirded Canadian federalism was disintegrating. An ill-advised attempt to reform Canada's Constitution in the early 1990s had galvanized the people of Québec, and a referendum on its independence was to be held in October 1995.⁵ William Keech and William Scarth capture the bleakness of the situation perfectly when they write,

3. A “point year of excess unemployment” is one year of an unemployment rate that is one percent higher than the natural rate (Blanchard 2014).

4. Canada's public debt had reached \$557 billion (Canadian dollars), roughly 80 percent of gross domestic product, by 1993 (Crowley, Clemens, and Veldhuis 2010, 67).

5. The Québec referendum took place on October 30, 1995. The motion for the province to separate from Canada was defeated by a margin of a little more than 1 percent of the popular vote.

“[T]here were two guns at the federal government’s head: the one pointed by the international financial bond rating agents . . . , and the other pointed by the separatists” (n.d.).

Canada’s existential crisis created a well-founded sense of urgency among policy makers and ultimately a window for transformative fiscal-policy change. Paul Martin, Chrétien’s high-profile finance minister,⁶ seized this opportunity when he unveiled the Liberals’ second annual budget in February 1995, a fiscal-policy blueprint that grappled more seriously with the deficit crisis. This budget called for an 8.8 percent reduction in program spending over two years (\$10.4 billion⁷) and slashed forty-five thousand public-sector jobs (14 percent of total public-sector jobs). All told, spending cuts outlined in the budget outweighed corresponding tax increases by a ratio of seven to one (Martell and Palmer 2011). These figures represented the Liberal government’s vision of a “smaller . . . smarter government” (P. Martin 1995, 2). Martin encapsulated this philosophy in his memorable budget speech: “The debt and deficit are not inventions of ideology. They are facts of arithmetic. The quicksand of compound interest is real. The last thing Canadians need is another lecture on the dangers of the deficit. The only thing Canadians want is clear action” (1995, 2).

These words were especially poignant coming from a representative of the centrist Liberal Party of Canada, a party that advocated for social justice and celebrated its history as a champion of expansive social policies such as universal health care. Further, Martin’s budget for 1995 was supported by the Reform Party of Canada (Martell and Palmer 2011),⁸ which made up the dominant right-wing bloc in Parliament following the collapse of the Progressive Conservatives.⁹ This uncharacteristic show of across-the-aisle solidarity sent a clear message to creditors: the federal government was serious about cleaning up its finances.

The spending cuts were concentrated in areas where the federal government had overlapping jurisdiction with provincial and local authorities. The federal Ministry of Transportation took the hardest hit, losing more than 50 percent of its funding. This cut reflected a handing-off of the direct ownership and operation of public-transportation systems to lower levels of government. Federal farm subsidies,

6. Martin was the runner-up to Chrétien in the Liberal Party’s contentious leadership race in 1990.

7. Unless otherwise specified, all figures here are in Canadian dollars. As of November 2016, U.S.\$1 was worth roughly \$1.35 Canadian, although the Canada–U.S. exchange rate has fluctuated widely in recent decades.

8. The Reform Party, founded in 1987, was a broad coalition of social conservatives, western Canada autonomists, and right-of-center academics. Benefitting from the collapse of the Progressive Conservative Party, Reform won fifty-two seats in the parliamentary elections of 1993, despite holding just one seat going in.

9. At this point, the separatist Bloc Québécois was the Official Opposition in Parliament, having won fifty-four of Québec’s seventy-five seats. The Bloc opposed Martin’s 1995 budget on the grounds that the proposed austerity measures would disproportionately harm residents of Québec (Loubier 1995).

which disproportionately benefit Québec and the agrarian prairie provinces, were also slashed dramatically (Veldhuis, Clemens, and Palacios 2011, 22–25). Crucially, the budget proposed a \$4 billion (14 percent) reduction over two years in provincial transfers for health, education, and social services. The social transfers were also restructured into block grants, which allowed the federal government to send a fixed amount of funding to each province. Under the preexisting cost-sharing structure, the federal government's level of social spending varied based on what the provinces spent. The move to block grants made social transfers more sustainable and predictable. Although these decentralizing measures would later create problems of their own,¹⁰ they were instrumental at the time in helping Ottawa get out from under the debt burden. They also gave the provinces new flexibility to experiment with their own service-delivery schemes.

The federal government's belt tightening began to pay dividends almost instantaneously. Aided by a booming U.S. economy, falling interest rates, and restored investor confidence, Canada produced a budget surplus within just two years of the watershed budget of 1995 (Stanford 2003, 1). The gains would prove durable as Canada posted ten consecutive balanced budgets between 1997–98 and 2007–8, leading the G7 in deficit control over much of that period (Lynch 2005). By contrast, the spendthrift United States fell into a deficit position in 2002 and has stayed there ever since.

A closer look at Canada's recovery in the mid-1990s reveals a lasting transformation of the role of the federal government in Canadian society. Between 1994–95 and 2000–2001, program spending decreased from 16.0 percent to 12.1 percent of gross domestic product (GDP) (Veldhuis, Clemens, and Palacios 2011, 23). Moreover, the federal debt-to-GDP ratio fell consistently until the global financial crisis, reaching a low of 29.9 percent in 2007–8 (Veldhuis, Clemens, and Palacios 2011, 26).¹¹ Canada's paradigm of smaller, smarter government appears to have endured the global downturn as, after falling into the red in the aftermath of the crisis, the Harper government steadily clawed its way back to solvency, producing a small surplus in its final budget (2015–16).¹²

The Chrétien government was able to pursue this ambitious reform agenda thanks in part to a favorable institutional setup. A onetime colony of the United Kingdom, Canada has inherited Great Britain's Westminster system of government. This

10. Martin's decentralizing measures led several provincial governments to criticize the growing "fiscal imbalance" between Ottawa and the provinces. Such critics argued that the federal government, although continually running large surpluses itself, was systematically dispossessing the provinces of the tools necessary to manage their own escalating expenses (Courchene 2006).

11. Canada's federal debt-to-GDP ratio currently sits at 31 percent (Canadian Department of Finance 2015).

12. According to the Canadian Department of Finance (2015), the federal government posted a \$3.2 billion budget surplus over the period April to December 2015. See <https://www.fin.gc.ca/fiscmon-revfin/2015-12-eng.asp>.

venerable framework is characterized by weak bicameralism, a fusion of legislative and executive powers, and a majoritarian system of voting. These features tend to concentrate power in the hands of the governing party and, more specifically, the prime minister. In fact, a strong prime minister who is supported by a parliamentary majority can enact drastic policy change almost unilaterally—perhaps best exemplified by Margaret Thatcher in the United Kingdom. Put differently, Canada at the federal level has fewer “veto points” than most advanced democracies (Tsebelis 1995), which generally minimizes barriers to policy change.

This stated, I must emphasize that Canada’s reform-friendly institutions played only a supporting role in this story. As mentioned earlier, the ultimate catalyst was a general consensus that Canada’s very existence as a unified entity hung in the balance, evidenced by the fact that Martin was aided in his quest to restore Canada’s financial credibility by provincial governments of various ideological stripes. Notably, the social democratic government of prairie province Saskatchewan, led by the widely respected Roy Romanow, has been identified as an “unsung provincial hero” of this period (Crowley, Clemens, and Veldhuis 2010, 85). In fact, the Romanow government, elected in 1992, was arguably ahead of the curve in recognizing the fiscal calamity that faced Canada. Romanow’s 1993–94 budget proposed a \$141 million cut (3.3 percent) in program spending and became a model for prudent budgets yet to come in other provinces. After similar cuts over the next two years, Saskatchewan posted a small budget surplus in 1996–97, becoming just the second Canadian province, behind oil-rich Alberta, to balance its books. As Brian Lee Crowley, Jason Clemens, and Niels Veldhuis write, the left-leaning Romanow government “was critical in establishing the non-partisan, non-ideological importance of balanced budgets” (2010, 87).

Canada’s vertical separation of powers is broadly similar to that of the United States, leaving provincial and local governments with significant autonomy in areas such as health care, education, policing, and natural-resource governance. As such, buy-in from the provinces was a crucial aspect of Canada’s turnaround. Were the situation less stark, jurisdictional rancor may well have impeded the painful but necessary process of reversing the course of the country’s finances.

The story of Canada’s redemptive decade is undoubtedly an uplifting tale of the triumph of political will over a seemingly insurmountable set of obstacles. Would-be reformers in the United States and elsewhere should look to Canada as a model of how to reframe the budget discourse and produce lasting fiscal-policy transformation.

Nevertheless, Canada’s transition into a leading-edge economy is far from complete. If the country is to fully realize its economic potential, it must now embark on an equally challenging mission to transform both its productivity woes and its approach to managing its abundant natural resources. Put simply, remaining a “hewer of wood and drawer of water” (Innis [1930] 1977, 386) will not suffice in an increasingly innovation-driven global economy.

Minding the Productivity Gap

One puzzle that continually vexes Canadian policy makers is why Canada, despite being near the top of the global heap in educational outcomes¹³ and cultivating an investor-friendly climate, continues to underperform in the all-important domain of productivity. Indeed, one group of economists has dubbed this pattern of low productivity a “Canadian disease,” attributable to a placid, nepotistic corporate culture (Morck, Stangeland, and Yeung 1998). A study conducted by consulting giant Deloitte in 2013 found that Canada’s output per worker is only 78 percent of the rate observed in the United States and that this gap appears to be widening over time. In other words, the average American worker generates \$13 more per hour than the average Canadian worker. Canada’s gap versus Norway, home to the world’s most productive workforce, is \$29 per hour (Deloitte 2013). According to the latest World Economic Forum (2016) figures for 2016–17, Canada now ranks fifteenth internationally in competitiveness, indicating significant room for improvement.

Perhaps even more troublingly, Canada is increasingly perceived as an innovation laggard in an age when disruptive technologies drive the global economy. Canada ranked just twenty-sixth for innovation in the World Economic Forum study. The report states that “Canada’s largest disparities with OECD [Organization for Economic Cooperation and Development] countries are in basic sophistication and innovation,” citing underinvestment in both the private and government sectors. It warns that this gap “could be slowing down productivity improvements” (World Economic Forum 2016, 21).

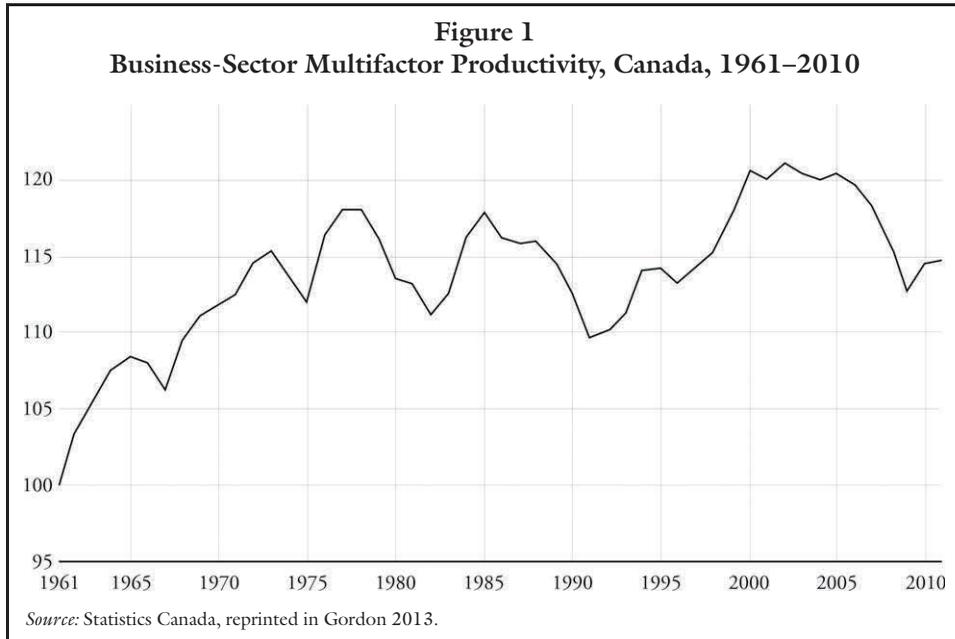
This problem is reflected in Canada’s long stagnation in the category of multi-factor productivity (MFP), an indicator that measures the contribution of technological innovation and efficiency gains to total productivity.¹⁴ As shown in figure 1, Canada’s MFP has not improved appreciably since the early 1970s (Gordon 2013).¹⁵

There is no better allegory for Canada’s innovation problem than the dramatic collapse of Ontario’s Waterloo-based smartphone pioneer Research in Motion (RIM), the firm behind the once iconic BlackBerry handset. Hitting the market in the early 2000s, BlackBerry revolutionized the cell phone, giving users access to email, web

13. The latest Programme for International Assessment study ranked Canada thirteenth out of sixty-five, placing it above the OECD average in reading, math, and science. This ranking was the highest attained by any Anglophone country. Australia (nineteenth) came the closest. The United States was ranked thirty-sixth (Sedghi, Arnett, and Chalabi 2013).

14. MFP growth (also called “total factor productivity”) is calculated as “total growth” minus growth generated by enhancements in labor and capital (Federal Reserve Bank of Boston n.d., 6–7).

15. There is some controversy over the measurement of Canada’s MFP. Erwin Diewert and Emily Yu (2012) argue that Statistics Canada has systematically underestimated MFP by attributing too much of total productivity growth to capital-input accumulation. Using their own formula, they estimate that traditional gross-income MFP growth averaged 1.03 percent per year between 1961 and 2011 (versus the official Statistics Canada estimate of 0.28 percent). They nonetheless concede that the MFP productivity performance of the Canadian business sector has been “decidedly unsatisfactory” through the first decade of the twenty-first century (39). See also Gordon 2013.



browsers, and various applications. At one time, the device was so popular that it was nicknamed “CrackBerry” for its addictive character. The brand earned significant press in 2009, when incoming American president Barack Obama won a hard-fought battle with White House personnel to be allowed to continue using his personal BlackBerry. Obama had stated earlier that officials would have to “pry [the BlackBerry] out of my hands” (quoted in Zeleny 2009).

However, BlackBerry was ultimately unable to keep pace with tech giants Apple and Google, who entered the smartphone market around that time. RIM critically failed to anticipate a shift in consumer preferences toward touch-screen technology, a mistake industry experts attribute to RIM management’s hubris and complacency (Silcoff, McNish, and Ladurantaye 2013). For instance, a profile of the company published in leading American financial web journal *Business Insider* in 2011 read, “[M]uddled thinking at the top has its way of percolating down the rest of the organization. When your CEOs [RIM’s Jim Ballisillie and Mike Lazaridis] can’t articulate what they’re doing and what’s happening around them, you’re going to be victimized by more clear-headed rivals like Apple and Google, which is what’s happening to Research in Motion right now” (Yarrow 2011).

RIM’s decline was hastened by internal strife and a perceived lack of direction. After the company’s stock lost three-quarters of its value over 2011, its cofounders stepped aside in early 2012, paving the way for downsizing. The company, now rebranded BlackBerry, has spent much of the time since then unsuccessfully searching for a buyer (Rodriguez 2013). In the fall of 2016, BlackBerry announced plans to phase out the production of phones altogether and focus on expanding its niche in

software development (De Vynck 2016). The falloff of RIM/BlackBerry has left Canada without a flagship high-tech brand.

The status quo has Canada bleeding talent to greener pastures, most often south of the border. Upward of 3 million Canadians, comprising 10 percent of the country's total population, work full- or part-time in the United States (Francis 2013, 8). This pool of talent includes industry heavyweights such as Elon Musk, the visionary CEO of Space-X and Tesla Motors, and Shane Smith, founder and CEO of digital media giant *VICE*. In a recent interview with *Forbes*, Smith shed light on the possible cultural roots of Canada's creativity deficit: "I grew up in Canada [and] I've spent a lot of time in Scandinavia, where I believe countries legislate out creativity. They cut off the tall trees. Everyone's a C-minus. I came to America from Canada because Canada is stultifyingly boring and incredibly hypocritical. Thanks, Canada" (quoted in Bercovici 2012).

Putting aside Smith's incendiary tone, there is undoubtedly a grain of truth to this statement. If Canada is to build a true knowledge economy, policy makers will have to convince disruptors such as Musk and Smith that they can be successful at home. In the remainder of this article, I argue that reining in Canada's unruly energy sector will be an important step in this direction.

Canada's Problems of Plenty

As the world's second-largest landmass, Canada is unsurprisingly endowed with abundant national-resource wealth. The country's vast tundra boasts such coveted resources as gold, diamonds, coal, uranium, potash, and natural gas. Moreover, its many rivers and lakes have proven amenable to the large-scale generation of hydroelectric power. Yet crude oil comprises Canada's single-largest export category, valued at \$87.1 billion per year (Brokaw 2012) and making up nearly 20 percent of total exports (MacDonald and Vieira 2014).

Canada is home to the world's third-largest proven oil reserves, 97 percent of which is located in the bitumen-rich oil sands of prairie province Alberta (Government of Canada 2014). Between the oil sands and smaller conventional oilfields elsewhere in the province,¹⁶ Alberta produces three-quarters of all Canadian liquid hydrocarbons¹⁷ (Canadian Association of Petroleum Producers 2015, table 3.7e) and nearly 20 percent of national GDP, despite composing just a little more than 10 percent of the country's population (Statistics Canada 2015a, 2015b).

Although section 92 of Canada's Constitution grants the provinces ownership of the natural resources within their borders, oil production in Alberta has ramifications

16. Conventional crude oil extracted from non-oil-sands sources accounts for one-quarter of the province's total oil production (Alberta Energy n.d.).

17. The bulk of Canada's remaining oil production comes from Saskatchewan (12 percent) and Atlantic offshore drilling (5 percent) (Canadian Association of Petroleum Producers 2015, table 3.7e).

for the entire country. For instance, the latest oil boom drew thousands of workers away from other provinces, thereby driving up the cost of labor across Canada (McCarthy 2011). Further, as a landlocked province, Alberta is perpetually engaged in often heated negotiations with the other provinces over the transportation of its oil to new markets. The federal government's contentious system of equalization payments, through which the affluent "have" provinces indirectly subsidize the less-prosperous "have not" provinces, is another source of conflict between Alberta and its neighbors.¹⁸ Canada's more than six hundred Aboriginal communities, who hold extensive land claims throughout the country, further complicate the politics of extracting and transporting Alberta oil as well as sharing the resultant revenue.

Oil-sands petroleum, derived primarily from coarse bitumen, is among the world's most costly and environmentally invasive petroleum to extract, with an average break-even price of approximately \$85 per barrel (Lewis 2014). The greenhouse gases emitted during its extraction are estimated to be three to four times as intensive per barrel as those emitted during the extraction of conventional crude oil (Grant et al. 2013, 6). This heavy carbon footprint has made Alberta ground zero for a number of international environmental groups. Such activists mobilized forcefully against the recently terminated Keystone-XL Pipeline project, which would have transported oil-sands bitumen to refineries in the Houston area.¹⁹ Two other controversial pipeline projects—led by the Houston-based company Kinder Morgan and the Calgary company Enbridge, respectively—propose to ship oil-sands product to Canada's Pacific coast and ultimately to markets in Asia. A fourth pipeline proposal currently under development by TransCanada (also of Calgary) involves shipping oil-sands product eastward through Canada's central and Atlantic provinces.

Pipeline politics have proven to be sensitive domestically. For instance, several political observers have identified the surprise midcampaign decision of British Columbia's opposition leader Adrian Dix to come out against the planned expansion of the Kinder Morgan pipeline as the turning point in the West Coast province's provincial election in 2013, which saw Dix's New Democratic Party (NDP) squander a 20 percent lead in the polls en route to a crushing defeat by the incumbent British Columbia Liberals²⁰ (Hoberg 2013). Pipelines now promise to be a daunting political challenge for prime minister Justin Trudeau, who thus far has struggled to placate the environmentalist and pro-business wings of his party on the issue. Trudeau has the

18. Canada's equalization program is administered by the federal government and financed through general tax revenues. The program's managers use a complex formula based on provincial tax revenues to set a floor of financing available to the provinces for core social programs. Alberta, which has not received equalization payments since the early 1960s (McMillan 2012, 5), has continually fought to have its natural-resource revenues excluded from the equalization formula (Lecours and Béland 2010).

19. President-elect Donald Trump has indicated that he will reboot the Keystone Pipeline project.

20. The British Columbia Liberals, led by incumbent premier Christy Clark, stated that they would await the outcome of federal and provincial environmental impact assessments before taking a definitive position on either proposed pipeline. The party also campaigned heavily on the expansion of British Columbia's budding liquefied-natural-gas industry (O'Neil 2013).

added baggage of being the son of former prime minister Pierre Elliot Trudeau, whose own tenure was blighted by an internecine battle with Alberta over the oil sands (covered in detail later in this article).

Yet oil has had the most pronounced effect on the internal politics of Alberta itself. Much has been written about the peculiar governance challenges that vex oil-rich jurisdictions (see, e.g., Karl 1997), and Alberta historically has encountered several of these difficulties. Despite policy makers' sincere efforts, the province has proven itself to be incapable of properly managing its windfall resource. Herb Emery and Ron Kneebone indicate that Alberta saved less than 10 percent of the estimated \$130 billion in oil rents collected between 1970 and 2004. They characterize Alberta's history with oil revenue as a "story of failed efforts to keep price volatility from entering the provincial budget" (2011).

The first round of oil shocks from the Organization of the Petroleum Exporting Countries (OPEC), in 1973–74, appeared to jolt Albertan policy makers in the right direction. The price swing exposed the inherent volatility of global oil markets and motivated conservative premier Peter Lougheed to establish the Alberta Heritage Savings Trust Fund (AHSTF) in 1976. Lougheed endowed the AHSTF with a special appropriation of \$1.5 billion and pledged to subsequently channel 30 percent of all provincial resource revenues to the fund. Yet Lougheed himself raided the AHSTF in the wake of a severe economic downturn in 1982, diverting the fund's earned investment income into general revenues and reducing to 15 percent the proportion of resource revenues earmarked for the fund. The AHSTF was virtually liquidated by a successor government in the midst of a new economic crisis later in the decade (Emery and Kneebone 2011).²¹

Alberta finally appeared to wrest control over its resource curse in the 1990s. After a period of political flux early in the decade, the rugged, straight-shooting Ralph Klein (also a conservative) became Alberta's premier in 1993. Upon taking office, Klein pledged to eliminate the provincial deficit and eventually the provincial debt. He held his administration to these plans by publicly adopting and meeting incremental deficit-reduction targets (Emery and Kneebone 2011). Through this approach, Klein was able to produce a balanced budget within two years, 1994–95 (Crowley, Clemens, and Veldhuis 2010, 94), and, remarkably, to wipe out Alberta's provincial debt entirely by 2004 ("Alberta Declares Itself Debt Free" 2014). This made Alberta the first provincial government in more than thirty years to retire its debt.

Yet Klein, who became known affectionately to Albertans as "King Ralph," overreached near the end of his reign. The Klein government marked the

21. A similar initiative launched in neighboring province Saskatchewan (which produces significant quantities of oil, potash, and uranium) suffered the same fate as the AHSTF. The Saskatchewan Heritage Fund ultimately amounted to little more than a "flow-through account" because up to 80 percent of its nonrenewable resource-oriented deposits could be transferred to government general revenues. It was discontinued in 1992 (Poelzer 2015).

province's centennial in 2005 by sending out a tax-free \$400 check to each resident of Alberta. This one-time giveaway, branded "Ralph Bucks" by the Alberta media, ate up \$1.4 billion, roughly 20 percent of the province's \$6.8 billion surplus (Wesley 2011, 105).

Ralph Bucks reflected the very worst of the Alberta government's tendencies toward populism and short-sightedness. Policy makers would soon come to rue Klein's impulsive legacy-building gesture as Alberta once again found itself in deficit in the wake of the global economic downturn of 2008–9. Alberta has stayed in the red for all but one fiscal cycle since then (Henton and Varcoe 2015).²² Although the province has been cushioned somewhat by a nest egg of savings built up under the Klein government,²³ it will soon need to make some difficult financial choices with the global price of crude oil having fallen well below its peak. Alberta projected a deficit of \$10.9 billion—its largest ever—in its budget for 2016–17 (Kavcic 2016).

Alberta's natural-resource mismanagement can ultimately be traced back to two general pathologies. First, petroleum windfalls have effectively severed the connection between taxation and program spending. As such, despite being the only province in Canada without a sales tax, the Alberta government has consistently been able to sustain high levels of public spending thanks to free-flowing petrodollars (Emery and Kneebone 2011). This high spending puts Alberta in a situation similar to that of many other oil-rich jurisdictions, where the status quo fiscal position is one of unsustainable spending and inadequate taxation (Karl 1997).

Second, Alberta's policy makers have misidentified transitory resource booms as permanent. The long-term planning of Alberta's boom-time governments consistently reflects a mistaken belief that higher crude-oil prices will persist. This brand of myopia echoes what Carmen Reinhart and Kenneth Rogoff (2009) call the "this time is different" syndrome—that is, a misplaced confidence that some unique quality of present circumstances renders lessons from the past irrelevant.

In fairness, the "this time is different" viewpoint was given some consistency in the 2000s by the then fashionable theory of "peak oil" (Hubbert 1982), which holds that global petroleum extraction is nearing its natural limit, with observed price increases reflecting the resource's creeping physical scarcity. Peak-oil theory (which never had credibility in academic circles) has since fallen out of favor among pundits due in part to the advent of hydraulic fracturing, a game-changing technology that has made oil deposits embedded in shale rock recoverable (Francis 2013, 120–21). As such, global crude-oil prices are likely to remain below record levels for the immediate future, forcing Albertans to once again endure a painful contraction.

22. The Alberta government posted a modest surplus of \$1.1 billion in 2014–15 (see Henton and Varcoe 2015).

23. The AHSTF currently holds \$18 billion (Alberta Treasury Board and Finance 2016).

Canada's federal government must also shoulder part of the blame for the mismanagement of Alberta's oil revenues. Following the second OPEC oil shock in 1979, the Liberal government of Pierre Trudeau devised the National Energy Program (NEP), an ill-conceived plan to shield Canadian consumers and businesses from the spike in global oil prices. Formally introduced in October 1980, the NEP was based on three stated objectives: to promote greater Canadian self-sufficiency in oil production; to establish fairness in oil pricing and federal-provincial revenue sharing; and to increase Canadian ownership in the domestic oil industry. Operationally, this program meant a new federal tax for oil producers (both foreign and domestic), price controls, and special subsidies for Canadian-owned oil and gas exploration firms. Another core feature of the NEP was an expanded role for the state-owned company PetroCan (Jenkins 1986, 146–47).

The plan provoked immediate pushback from Alberta's then premier Peter Lougheed, who justifiably felt marginalized by Prime Minister Trudeau. Lougheed retaliated against Trudeau by cutting Alberta's oil production, vowing to shrink the province's oil and gas industry capacity down to 85 percent. The stand-off ended when Lougheed and Trudeau came to terms on a new revenue-sharing agreement in September 1981, but the dispute would leave lasting scars ("Alberta and the National Energy Program" n.d.). Tellingly, Lougheed later made a notable speech on the conflict, titled "The Rape of the National Energy Program Will Never Happen Again" (Lougheed 1988).

The NEP also drew the ire of multinational energy companies, which at the time controlled more than 70 percent of the Canadian oil industry (Jenkins 1986, 147). These companies saw the NEP as a naked attempt to nationalize the oil sector, so in response they sold off many of their Canadian energy assets. The divestment was exacerbated by a broader global recession, producing a calamitous economic climate for the people of Alberta. Between 1980 and 1986, Alberta lost an estimated \$50 to \$100 billion due to the NEP (Mansell and Schlenker 1995; Davidson and Gismondi 2011), the equivalent of roughly one year's total GDP (\$67.6 billion). Over this period, Alberta's unemployment rate entered the double digits, and bankruptcies increased by 150 percent (Libin 2008). Anecdotes of Albertan life in the age of the NEP paint a bleak picture of foreclosed homes, empty storefronts, and idle rigs. The provincial mood was captured by a popular bumper sticker that read "Let the Eastern Bastards Freeze in the Dark" (D. Martin 2005).

Anti-NEP sentiment across western Canada helped Progressive Conservative Brian Mulroney form a majority federal government in 1984. Mulroney made dismantling the NEP a top priority. One of his first moves as prime minister was to dismiss senior bureaucrat Ed Clark, who was known derisively in western Canada as "Red Ed" for his role as an architect of the NEP (Stewart and Perkins 2009). In March 1985, Mulroney unveiled a comprehensive plan to phase out the program.

More than thirty years later the legacy of the disastrous NEP casts a long shadow. Even Canada's most left-leaning political leaders are hesitant to address the

notion of federal involvement in Alberta's oil industry. Reflecting on the program in 2005, Jack Layton, who then led the leftist NDP, stated, "We should never have tried anything like the NEP. . . . Canada has learned its lesson from that debacle. It should [now] focus on the types of energy we'll need for the economy of the future" (quoted in D. Martin 2005). Thomas Mulcair, Layton's immediate successor as NDP leader, later drew widespread criticism when he used the term *Dutch disease* to draw a link between the oil-sands boom of the 2000s and the coeval decline of Canadian manufacturing.²⁴ The immediate backlash to this statement forced Mulcair to hastily organize a visit to western Canada to smooth over tensions with provincial governments and industry groups (Galloway 2012). Mulcair has since dialed down his rhetoric on the oil sands. With Ottawa unwilling and Alberta evidently unable to address this natural-resource curse, the situation is at a political impasse.

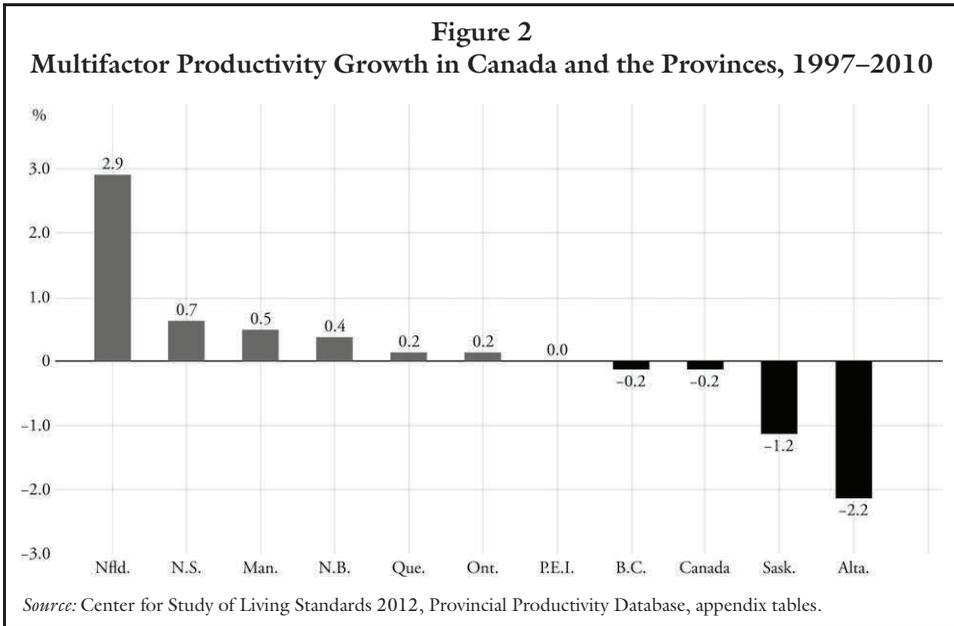
Back to Productivity

This impasse is a problem for the country as a whole because the macroeconomic data indicate that Alberta's resource curse has been a drag on Canada's aggregate productivity. Between 1997 and 2010, a timeframe encompassing the most recent oil boom, Alberta lagged behind all other provinces in the categories of labor, capital, and MFP growth (Centre for the Study of Living Standards 2012). In fact, a study published by the Vancouver-based Fraser Institute in 2014 placed Alberta dead last among North America's top-ten energy-producing jurisdictions in the category of MFP growth between 2001 and 2012 (Di Matteo, Clemens, and Emes 2014, 19).

Alberta's lackluster MFP, which actually contracted by 2.2 percent between 1997 and 2010 (figure 2), is arguably the most troubling of these indicators. As mentioned earlier, MFP measures productivity gains attributable to technological innovation and enhanced efficiency. The numbers point to an unsettling trend of deindustrialization for Canada's economic powerhouse.

This view is corroborated by more in-depth analysis. A recent report released by RBC Global Asset Management, a subsidiary of Canada's largest commercial bank, argues that Canada suffers a distinct type of resource curse that "operates through the keyhole of inferior competitiveness and productivity." The report, written by Chief Economist Eric Lascelles, notes that "Alberta's productivity performance has dragged in particular since the late 1990s and much of this can be pinned on the mining and energy industry." Lascelles posits that Canada's resource wealth may ultimately be "dampening the education premium and encouraging a shift into lower-value manufacturing of the sort that perches immediately atop resource extraction" (Lascelles

24. Dutch disease occurs when natural-resource-driven currency appreciation makes other export-oriented fields less competitive internationally ("What Dutch Disease Is" 2014). The claim that Canada's latest resource boom led to Dutch disease is contentious. Although the Canadian dollar rose versus the U.S. dollar over the 2000s, its value held relatively constant versus the euro and other benchmark currencies (Carney 2012, 4).



2012, 4–5). This assessment is reflected in the fact that 18 percent of Canadian university graduates earn less than the country’s median national income, which is the highest percentage among OECD countries. The education premium is especially diminished for male Canadian degree holders, who attain just an 85 percent employment rate. This is the second-worst showing in the OECD; only degree-holding Hungarian men fare worse in the labor market (OECD 2011, 2). This diminishment again fits the resource-curse narrative because men are most likely to hold the low-education/high-wage manual-labor jobs that typify the extractive industries.

Unfortunately, policy makers are abetting this pattern. With youth unemployment hovering at 13 percent, double the rate for the general population (Waye 2015), political leaders have touted the skilled trades as a career option for underemployed young adults. Near the end of its tenure, the Harper government commenced a major initiative to steer young Canadians into job-oriented vocational training. The Canada Apprenticeship Loan program, launched in early 2015, allocates more than \$100 million in loans annually to support twenty-six thousand apprentices in more than fifty vocational fields (Employment and Skills Development Canada 2015).²⁵ British Columbia has recently followed suit with a \$400 million per year training “Blueprint” designed to track more high school students into the trades (“B.C. to Refocus Education” 2014). One key objective of this trades push is to fill thousands of existing and anticipated job vacancies in the resource sector. Such openings are concentrated in blue-collar fields such as welding, pipefitting, and

25. The Canada Apprenticeship Loan program appears so far to have survived the change in government.

heavy-equipment operation—areas that generally fit Lascelles’s definition of “lower-value manufacturing.”

The trend appears unlikely to change under Justin Trudeau, who campaigned heavily on a multi-billion-dollar infrastructure program designed to create thousands of blue-collar jobs for middle-class Canadians (Liberal Party of Canada 2015). The new government’s plan for Canada to “build its way” out of its current economic doldrums²⁶ through deficit spending when necessary also provokes broader structural concerns. With an estimated 7 percent of Canadian workers already employed in construction (roughly twice the share of construction workers in the United States) (Sorensen and Hutchins 2015) and experts warning of an imminent housing-market collapse (Milner 2015),²⁷ Justin Trudeau’s debt-financed²⁸ push for “shovel-ready” infrastructure jobs may well be adding fuel to an already overheated sector of the economy.

The political rhetoric behind the trades initiative has at times been hostile to the notion of higher education. One federal government insider recently remarked, “There are too many kids getting BAs and not enough welders” (quoted in Weston 2013). British Columbia’s education minister similarly told reporters upon unveiling the province’s training blueprint, “Poets are still welcome, but more welders would be nice” (quoted in “B.C. to Refocus Education” 2014). The national media has also played cheerleader to the resource patch. For instance, a feature article published in *Maclean’s* magazine (which also puts out Canada’s most influential university rankings) in 2012 was titled “The Best-Paying Most-Hiring Industries Revealed: Why You Should Learn Math and Move to Alberta” (Dehass 2012).

Yet this “back to the basics” approach to skills development may ultimately prove counterproductive in light of Canada’s broader macroeconomic struggles. Policy makers are unlikely to ameliorate sagging productivity by pushing young Canadians into less knowledge-intensive fields. Further, the federal government’s trades-centric youth-employment strategy sidesteps the problem of underutilized postsecondary graduates. Rather than work as plumbers and mechanics at home, many of Canada’s highly educated and underemployed youth will undoubtedly pursue more suitable options abroad, which, again, represents a tremendous waste of human capital in Canada. Finally, policy makers are placing a dangerous bet on extractive industries given the resource sector’s inherent volatility. It is virtually impossible to forecast long-term labor needs for an area of the economy that is so vulnerable to shocks from automation and price collapses. Accordingly, several

26. Canada started 2015 with two consecutive quarters of negative GDP growth (a technical recession) but then rallied, posting an annual growth rate of 1.1 percent. Growth has been flat through 2016 (OECD 2016).

27. According to a study conducted by Deutsche Bank in 2015, Canadian homes are the most overpriced in the world, listed at an average price of 63 percent higher than their actual value (Callanan and Saminather 2015).

28. The Trudeau government ran a \$29 billion deficit in its first posted budget, which earmarked \$11.9 billion over two years for new infrastructure spending. The government anticipates incurring \$113 billion in debt over five years (Curry and Fife 2016).

prominent academics, journalists, and watchdog groups called into question the Harper government's own numbers on the "skills shortage" (Goar 2014).²⁹

To be clear, I am not proposing a simple, monocausal relationship between Canada's resource mismanagement and its productivity issues. The puzzling impotence of Canadian industry is a long-running problem that predates the recent commodity boom. As such, the character of Canada's resource wealth is just one of several factors that have contributed to the "Canadian disease" of lackluster productivity. I am unable to delve too deeply into this puzzle here without losing focus. What I have tried to convey instead in this section is that through a combination of natural-resource mismanagement and myopic governance, Canada is poised to fall even farther behind the curve in an increasingly dynamic and knowledge-driven global economy.

Policy Options

The latest oil bust has sparked renewed interest in the idea of creating sovereign wealth funds (SWFs) for both Alberta and the Canadian federal government (Poelzer 2015). Norway has effectively pursued this strategy and now owns the world's largest SWF. Established in 1990, the Government Pension Fund of Norway captures surplus Norwegian petroleum rents and reinvests them in stocks, currency, real estate, and other blue-chip assets. Today, the oil fund is worth nearly U.S.\$900 billion (SWF Institute 2015). It has helped Norway sidestep some of the problems that plague other oil-rich states (Larsen 2004): the self-destructive tendency to allow petrodollars to fuel unsustainable public spending (Karl 1997).

However, as the failure of the AHSTF indicates, the creation of a Norway-style trust fund would fall out of step with Alberta's historically populist political culture. The province shares a frontier mentality with its relatives in the American West, and Albertans have historically shown little tolerance for excessive taxation or direct state ownership of the oil sector (Phillips 2008). By contrast, Norwegians accede to an assertive brand of state capitalism and, pivotally, a rigorous tax regime that supports program spending,³⁰ which gives Norway the flexibility to stow away most of its oil rents without creating any immediate financial hardship or provoking protest (Fawcett 2015). Moreover, the NEP debacle still looms ominously and has effectively closed the door to the prospect of meaningful Alberta–Ottawa cooperation on oil-sands governance—especially with a Trudeau at the helm of government. Any suggestion of a Canada-wide SWF is thus rendered moot.

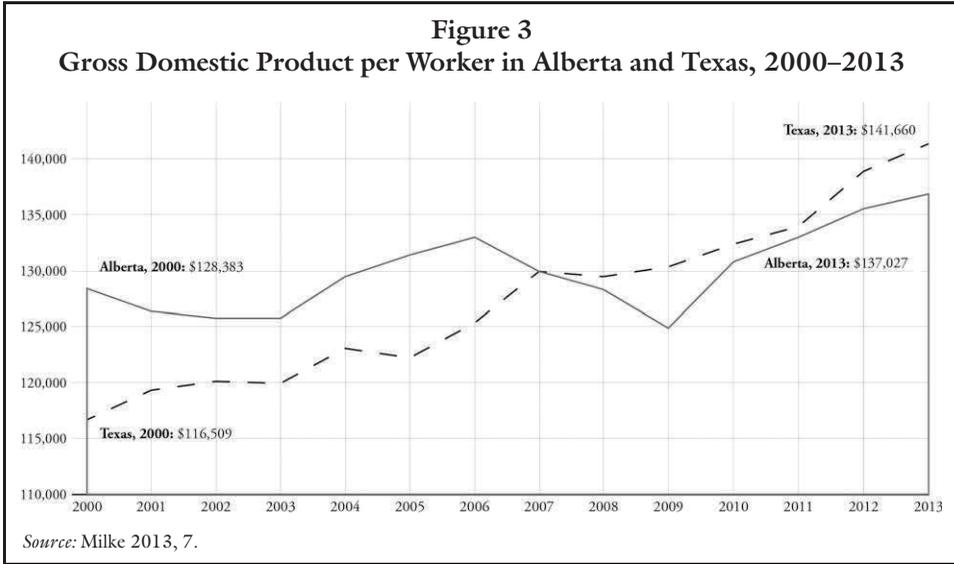
29. An investigation led by Parliamentary Budget Officer Jean-Denis Fréchette in 2014 found that job-vacancy numbers cited by the Harper government were inflated because they came from an online classified ad service that allows employers to advertise available positions under multiple categories (Goar 2014).

30. Norway's top marginal income tax rate is 47.2 percent; Alberta's is 39 percent. Norwegians also pay a 25 percent consumption tax (Fawcett 2015).

Albertans may find a more viable model closer to home. The oil-rich state of Texas has led the United States in job growth throughout the postrecession period (Perry 2015) and offers some useful cues on both managing budgets and fostering productivity. The Lone Star State has pursued an effective strategy of diversification since the mid-1980s and now depends on the oil and gas sector for just 11 percent of its total economic output (compared to 27 percent in Alberta) (Milke 2015, iii). Further, the state has managed to yield surpluses in each of its postrecession budgets (Milke 2015, 17). It is also worth noting that four of Texas's major cities—Austin, San Antonio, Dallas, and Houston—cracked the nationwide top-ten rankings for annualized productivity growth between 2009 and 2012 (Florida 2013). The successful “Texas Model” is predicated on three fiscally conservative principles: a risk-averse banking sector, a pro-business tax and regulatory environment, and a diversified state economy (Hilsenrath, Campoy, and Leubsdorf 2015). These precepts would resonate intuitively with Alberta's historically right-leaning electorate.

A more focused comparison reveals that one key factor separating the economies of Texas and Alberta is public-spending growth. Per capita government spending in Alberta grew by 70 percent between 2000 and 2013; in Texas, it grew by 60 percent over the same period. One key source of Alberta's spending boom has been burgeoning public-sector employment. Alberta's public-sector employment grew at an average of 2.8 percent per year between 2000 and 2013, outpacing the population growth rate of 2.2 percent per year. By contrast, Texas was able to limit public-sector employment growth to 1.1 percent per year while sustaining 1.8 percent annual increase in population. Put differently, Alberta's rate of public-sector job growth was 147 percent higher than Texas's growth (Milke 2015, 10, 15). Given dampened incentives for efficiency in the public sector, it is probably not a coincidence that over this timeframe (as figure 3 shows), Texas surpassed Alberta in the category of output per worker (Milke 2015, 7). All told, the numbers show that one pivotal step on Alberta's road to improved competitiveness will be to rein in its burgeoning public sector.

Unfortunately, the Alberta government appears to be moving in the exact opposite direction. The left-leaning NDP won a surprising electoral majority in the spring of 2015, taking advantage of a split in Alberta's right. The NDP's victory broke forty-four years of uninterrupted conservative rule in Alberta. New premier Rachel Notley has thus far presented herself as a moderate, but many in her inner circle have links to public-sector labor unions. Notley herself once worked for the Alberta Union of Public Employees, and her husband is currently an executive with the Canadian Union of Public Employees (Gerson 2015). It is hard to imagine Notley initiating the necessary drawdown in public-sector employment given her personal ties to such labor groups. Accordingly, the Notley government's inaugural budget, unveiled in October 2015, included a pledge to keep public-sector employment stable and to increase program spending at a rate of 2 percent per year (Bennett 2015).



The options available to Canada's new federal government are naturally more limited. Prime Minister Trudeau has good reason to tread lightly on relations with Alberta, given both his party's ambivalence toward oil-sands development and his own family history. However, one encouraging development that has already taken place under Trudeau is the resumption of federal-provincial dialogue through the First Ministers' Conference, which brings the prime minister together with the provincial premiers for face-to-face talks. Such talks have taken place intermittently since 1906 but fell out of favor under the Harper government. Going forward, the First Ministers' Conference could be an important forum for dialogue and policy coordination on the jurisdictionally ambiguous issue of how the interprovincial externalities of natural-resource development can best be managed.

Conclusion: What Now?

Taking nothing away from the progress forged during its redemptive decade, Canada continues to face a more deeply rooted set of economic challenges. It risks falling further behind more competitive, innovative jurisdictions if it is unable to move its mundane resource economy into the twenty-first century. This challenge weighs especially large on the oil-rich province of Alberta. Given the vastness of the oil sands and the area's centrality to the resource economy, policy decisions made in Alberta have serious ramifications for the rest of the country. The process of modernization will not be easy because it will mean revisiting scars left by the NEP.

Yet if there is anything that the redemptive decade taught Canadians, it is that the country's political institutions can produce rapid change when a cross-national

consensus emerges. This article will ideally help nudge the discourse in the proper direction by highlighting the relationship between economic vitality and effective natural-resource governance. The key idea I have tried to convey here is that Canadians need to reframe the extant debate on domestic petroleum development and take a closer look at the effect their approach to managing their most lucrative and volatile resource may have on other aspects of the economy.

References

- Alberta and the National Energy Program*. n.d. CBC Alberta. At <http://www.cbc.ca/alberta/features/tories40/nep.html>.
- Alberta Declares Itself Debt Free. 2014. *CBC News*, November 29.
- Alberta Energy. n.d. Oil Facts. At <http://www.energy.alberta.ca/Oil/762.asp>. Accessed on November 28, 2016.
- Alberta Treasury Board and Finance. 2016. Heritage Fund—Frequently Asked Questions. At <http://www.finance.alberta.ca/business/ahstf/faqs.html#value>.
- Austen, Ian, and David Leonhardt. 2014. Life in Canada, Home of the World’s Most Affluent Middle Class. *New York Times*, April 14.
- B.C. to Refocus Education, Training Plans to Fill 1M Jobs. 2014. Canadian Press, April 30.
- Bennett, Dean. 2015. Alberta Budget 2015: Spending Will Serve as a “Shock Absorber,” Says Finance Minister. Canadian Press, October 28.
- Bercovici, Jeff. 2012. Vice’s Shane Smith on What’s Wrong with Canada, Facebook, and Occupy Wall Street. *Forbes*, January 3.
- Blanchard, Olivier. 2014. Inflation, Activity, and Nominal Money Growth. In *e-Study Guide for Macroeconomics*. N.p.: Content Technologies.
- Brokaw, Alex. 2012. Canada’s Top 5 Exports. *Minyanville*, September 11.
- Callanan, Neil, and Nichola Saminather. 2015. Canada Housing Market Is 63% Overvalued: Deutsche Bank. *Bloomberg*, January 8.
- Canada Bankrupt? 1995. *Wall Street Journal*, January 12.
- Canadian Association of Petroleum Producers. 2015. *Statistical Handbook for Canada’s Upstream Petroleum Industry*. Calgary: Canadian Association of Petroleum Producers. At <http://www.capp.ca/publications-and-statistics/publications/258990>.
- Canadian Department of Finance. 2015. *Annual Financial Report of the Government of Canada*. Ottawa: Canadian Department of Finance.
- Carney, Mark. 2012. Dutch Disease: Spruce Meadows Round Table. Bank of Canada, September 7. At <http://www.bankofcanada.ca/wp-content/uploads/2012/09/remarks-070912.pdf>.
- Centre for the Study of Living Standards. 2012. *Alberta Productivity Story, 1997–2010*. Ottawa: Centre for the Study of Living Standards.
- Courchene, Thomas J. 2006. *Accountability and Federalism in the Era of Federal Surpluses: The Paul Martin Legacy, Part II*. Montreal: Institute for Research on Public Policy.

- . 2012. *Policy Signposts in Postwar Canada: Reflections of a Market Populist*. Montreal: Institute for Research on Public Policy.
- Crowley, Brian Lee, Jason Clemens, and Niels Veldhuis. 2010. *The Canadian Century: Moving Out of America's Shadow*. Toronto: Key Porter Books.
- Curry, Bill, and Robert Fife. 2016. Trudeau's First Budget Aims to Spur Growth with \$29-Billion Deficit. *Globe and Mail*, April 26.
- Davidson, Debra J., and Mike Gismondi. 2011. *Challenging Legitimacy at the Precipice of Energy Calamity*. New York: Springer.
- De Vynck, Gerrit. 2016. BlackBerry Stops Making Phones. *Bloomberg*, September 25.
- Dehass, Josh. 2012. The Best-Paying, Most-Hiring Industries Revealed: Why You Should Learn Math and Move to Alberta. *Maclean's*, April 25.
- Deloitte. 2013. The Future of Productivity 2013: Close the Perception Gap. At <http://www2.deloitte.com/ca/en/pages/insights-and-issues/articles/future-of-productivity-2013.html>.
- Di Matteo, Livio, Jason Clemens, and Joel Emes. 2014. *An Economic and Fiscal Comparison of Alberta and Other North American Energy Producing Provinces and States*. Vancouver: Fraser Institute.
- Diewert, W. Erwin, and Emily Yu. 2012. New Estimates of Real Income and Multifactor Productivity Growth for the Canadian Business Sector, 1961–2011. *International Productivity Monitor*, no. 24: 27–48.
- Emery, Herb, and Ron Kneebone. 2011. Alberta's Problems of Plenty. *Policy Options*, May, 10–16. At <http://policyoptions.irpp.org/magazines/provincial-deficits-and-debt/albertas-problems-of-plenty/>.
- Employment and Skills Development Canada. 2015. Red Seal Trades. At http://www.red-seal.ca/trades/tr.1d.2s_1.3st@-eng.jsp.
- Farlow, Andrew. 2013. *Crash and Beyond: Causes and Consequences of the Global Financial Crisis*. Oxford: Oxford University Press.
- Fawcett, Max. 2015. Why We're Not Like Norway. *Alberta Oil Magazine*, March 26.
- Federal Reserve Bank of Boston. n.d. What Is Productivity? At <http://www.bostonfed.org/education/ledger/ledger04/winter/whatisprod.pdf>. Accessed January 4, 2015.
- Florida, Richard. 2013. Did the Recession Convince Americans to Move to More Productive Cities? *Atlantic*, October 11.
- Fortin, Pierre. 1996. The Great Canadian Slump. *Canadian Journal of Economics* 29, no. 4: 761–87.
- Francis, Diane. 2013. *Merger of the Century: Why Canada and America Should Become One Country*. New York: HarperCollins.
- Galloway, Gloria. 2012. Oil-Sands Criticism “Incrementally Helped” Mulcair, Polls Show. *Globe and Mail*, June 8.
- Gerson, Jen. 2015. Rachel Notley an NDP “Hippie” Who Vows to Reach Out to Alberta's Energy Sector. *National Post*, May 6.

- Gill, Indermit S., and Martin Raiser. 2012. *Golden Growth: Restoring the Lustre of the European Economic Model*. Washington, D.C.: World Bank.
- Goar, Carol. 2014. How the Myth of a Canadian Skills Shortage Was Shattered. *Toronto Star*, May 13.
- Gordon, Stephen. 2013. Technical Progress in Canada's Business Sector: Stuck in 1971? *Maclean's*, June 4.
- Government of Canada. 2014. Canada's Oil Sands Development Enhances the Canada–U.S. Energy Relationship. At <http://gowithcanada.ca/economy/26>.
- Grant, Jennifer, Marc Huot, Nathan Lemphers, Simon Dyer, and Matt Dow. 2013. *Beneath the Surface: A Review of the Key Facts in the Oilsands Debate*. Calgary, Canada: Pembina Institute.
- Henton, Darcy, and Chris Varcoe. 2015. Alberta's Long String of Deficits Ended by Billion-Dollar Surplus. *Calgary Herald*, July 1.
- Hilsenrath, Jon, Anna Campoy, and Ben Leubsdorf. 2015. Plunging Oil Prices Test Texas' Economic Boom. *Wall Street Journal*, January 4.
- Hoberg, George. 2013. The Battle over Oil Sands Access to Tidewater: A Political Risk Analysis of Pipeline Alternatives. *Canadian Public Policy* 39, no. 3: 371–92.
- Hubbert, Marion King. 1982. *Techniques of Prediction as Applied to the Production of Oil and Gas*. Ottawa: Canadian National Bureau of Standards.
- Innis, Harold. [1930] 1977. *Fur Trade in Canada: An Introduction to Canadian History*. Revised and reprinted. Toronto: University of Toronto Press.
- Jenkins, B. 1986. Reexamining the “Obsolescing Bargain”: A Study of Canada's National Energy Program. *International Organization* 40, no. 1: 139–65.
- Karl, Terry Lynn. 1997. *The Paradox of Plenty: Oil Booms and Petro-states*. Berkeley: University of California Press.
- Kavcic, Robert. 2016. Borrowing Taps Remain Open. *BMO Capital Markets*, April 14.
- Keech, William, and William Scarth. n.d. Economic Policy. In “Experiment in Democracy: Institutions and Policymaking in the United States and Canada,” edited by Paul Quirk, Mark Warren, and Colin Campbell, unpublished volume. Copy viewed in 2016.
- Larsen, Erling Røed. 2004. *Escaping the Resource Curse and the Dutch Disease? When and Why Norway Caught Up with and Forged Ahead of Its Neighbors*. Discussion Paper no. 377. Oslo: Statistics Norway, Research Department.
- Lascelles, Eric. 2012. Shrugging off Canada's Competitiveness Shortfall. *Economic Compass* 15 (May).
- Lecours, André, and Daniel Béland. 2010. Federalism and Fiscal Policy: The Politics of Equalization in Canada. *Publius: Journal of Federalism* 40, no. 4: 569–96.
- Lewis, Jeffrey. 2014. Is Oil Sands Development Still Worth It? *Globe and Mail*, October 29.
- Liberal Party of Canada. 1993. *Creating Opportunity: The Liberal Plan for Canada*. Ottawa: Liberal Party of Canada.
- . 2015. An Historic Investment Plan. At <https://www.liberal.ca/files/2015/08/An-historic-investment-plan.pdf>.

- Libin, Kevin. 2008. Alberta No Stranger to Pain. *National Post*, July 5.
- Loubier, Yvan. 1995. *The Budget: Financial Statement of the Minister of Finance*. Canadian Parliament, House of Commons, 35th Parl., 1st sess., meeting no. 161, February 28.
- Lougheed, Peter. 1988. The Rape of the National Energy Program Will Never Happen Again. In *Free Trade, Free Canada*, edited by Earle Gray, 151–54. Woodville: Canadian Speeches.
- Lynch, Kevin. 1995. The Virtuous Cycle: The Canadian Experience in the G7 Context. *Policy Options*, October, 63–67.
- MacDonald, Alistair and Paul Vieira. 2014. Falling Oil Prices Hurt Some, Help Others in Canada. *Wall Street Journal*, November 5.
- Mansell, Robert, and Ronald Schlenker. 1995. The Provincial Distribution of Federal Fiscal Balances. *Canadian Business Economics* 3, no. 2: 3–22.
- Martell, Allison, and Randall Palmer. 2011. TIMELINE—How Canada Tamed Its Budget Crisis. Reuters, November 21.
- Martin, Don. 2005. The NEP, 25 Years Later. *National Post*, October 28.
- Martin, Paul. 1995. *Budget Speech*. Canadian Department of Finance, February 27.
- McCarthy, Shawn. 2011. Labour Shortage Looms in Newfoundland and Labrador. *Globe and Mail*, December 17.
- McMillan, Melville L. 2012. *Alberta and “Equalization”*: Separating Fact from Fiction. Edmonton: Western Centre for Economic Research, University of Alberta.
- Milke, Mark. 2015. *A Tale of Two Energy Booms*. Vancouver: Fraser Institute.
- Milner, Brian. 2015. Shiller’s Case against Canada’s Housing Market. *Globe and Mail*, January 1.
- Morck, Randall K., David A. Stangeland, and Bernard Yeung. 1998. *Inherited Wealth, Corporate Control, and Economic Growth: The Canadian Disease*. National Bureau of Economic Research (NBER) Working Paper no. w6814. Cambridge, Mass.: NBER.
- O’Neil, Peter. 2013. Oil and Gas Industry Emerges as Centrepiece Issue in B.C. Elections. *Vancouver Sun*, April 23.
- Organization for Economic Cooperation and Development (OECD). 2011. *Country Note—Canada. Education at a Glance 2011*. Paris: OECD Publishing.
- . 2016. Quarterly Growth Rates of Real GDP, Change over Previous Quarter. At <https://stats.oecd.org/index.aspx?queryid=350>.
- Perry, Mark J. 2015. Texas, the “Great American Job Machine,” Is Largely Responsible for the +1.2M Net US Job Increase since 2007. *AEIdeas Blog* (American Enterprise Institute), January 23. At <https://www.aei.org/publication/texas-great-american-job-machine-solely-responsible-1m-net-us-job-increase-since-2007/>.
- Phillips, Jeffrey P. T. 2008. *Collecting Rent: A Comparative Analysis of Oil and Gas Fiscal Policy Regimes in Alberta, Canada, and Norway*. MA thesis, University of British Columbia, Vancouver.
- Poelzer, Greg. 2015. *What Crisis? Global Lessons from Norway for Managing Energy-Based Economies*. Ottawa: MacDonald Laurier Institute.

- Reinhart, Carmen M., and Kenneth Rogoff. 2009. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton, N.J.: Princeton University Press.
- Rodriguez, Salvador. 2013. BlackBerry Has Been Searching for a Buyer since 2013, Report Says. *Los Angeles Times*, August 14.
- Sedghi, Amy, George Arnett, and Mona Chalabi. 2013. Pisa Results 2012: Which Country Does the Best at Reading, Maths, and Science? *Guardian*, December 3.
- Silcoff, Sean, Jacquie McNish, and Steve Ladurantaye. 2013. Inside the Fall of BlackBerry: How the Smartphone Inventor Failed to Adapt. *Globe and Mail*, September 27.
- Sorensen, Chris, and Aaron Hutchins. 2015. Hard Times Ahead. *Maclean's*, July 27.
- Stanford, Jim. 2003. *Paul Martin, the Deficit, and the Debt: Taking Another Look*. Ottawa: Canadian Centre for Policy Alternatives.
- Statistics Canada. 2015a. Gross Domestic Product, Expenditure-Based, by Province and Territory. At <http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/econ15-eng.htm>.
- . 2015b. Population by Year, by Province and Territory. At <http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/demo02a-eng.htm>.
- Stewart, Sinclair, and Tara Perkins. 2009. The Power of Persuasion. *Globe and Mail*, May 14.
- SWF Institute. 2015. Sovereign Wealth Fund Rankings. At <http://swfinstitute.org/fund-rankings>.
- Tsebelis, George. 1995. Decision Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism, and Multipartyism. *British Journal of Political Science* 25, no. 3: 289–325.
- Veldhuis, Niels, Jason Clemens, and Milagros Palacios. 2011. *Budget Blueprint: How Lessons from Canada's 1995 Budget Can Be Applied Today*. Vancouver: Fraser Institute.
- Waye, Tyler. 2015. We Must Prevent the Scarring of Long-Term Youth Unemployment. *Globe and Mail*, March 18.
- Wesley, Jared J. 2011. *Code Politics: Campaigns and Cultures on the Canadian Prairies*. Vancouver: University of British Columbia Press.
- Weston, Greg. 2013. Peeved Harper Aims at “Remaking the Canadian Labour Force.” *Globe and Mail*, March 18.
- What Dutch Disease Is and Why It's Bad. 2014. *Economist*, November 5.
- World Economic Forum. 2016. *The Global Competitiveness Report 2016–2017*. Geneva: World Economic Forum.
- Yarrow, Jay. 2011. All the Dumb Things RIM's CEOs Said While Apple and Android Ate Their Lunch. *Business Insider*, September.
- Zeleny, Jeff. 2009. For a High-Tech President, a Hard-Fought E-Victory. *New York Times*, January 22.

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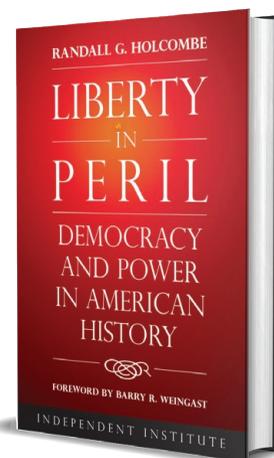
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