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Comfortable Decline: How Canada Chooses Stability Over Dynamic Prosperity

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Canadian innovation, productivity, and competitiveness are weak. Absent serious policy change, they will likely get even weaker. A turnaround requires addressing Canada's core challenges—most fundamentally, a Canadian political economy that is not designed for the techno-economic environment the country now faces.

KEY TAKEAWAYS

- Canada has seen weak productivity and innovation and deindustrialization. Limited capital investment, R&D, and entrepreneurship contribute to the problem.
- Many of the purported theories of poor performance, such as monopoly, housing capital crowding out investment, and problems with foreign investment, simply do not hold water.
- Restrictive regulation, interprovincial trade barriers, too many small and medium-sized enterprises, shallow capital markets, foreign ownership restrictions, and high immigration rates are more relevant.
- But the real question is, why has more and better action not occurred on core problems?
- Faulty or shallow analysis and a limited political economy coalition for change contribute.
- Canada's largely EU-style social democratic system and politics lead to a deep skepticism of technology-driven, dynamic capitalism and largely favour redistribution.
- Finally, the Canadian national state is weak and prioritizes stability over change.
- It is not too late for needed change in Canada, but that will require bold thinking, systematic risk-taking, and pathbreaking leadership.

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INTRODUCTION

Canada's economic performance over the last two decades has been disappointing, to say the least. Much of its manufacturing, particularly motor vehicles, has been lost. Productivity growth, and hence per capita income growth, has stagnated, leading to an even greater gap with the United States. Business research and development (R&D) is low. And Canada has seen net negative migration of college-educated workers.

It's not as if these problems are not known. They generally are known—although in some cases, they are underappreciated. Indeed, there is a cottage industry of punditry and analysis of the proximate causes of the problems (e.g., too little capital investment, too little technology commercialization from Canadian universities, too little risk taking, etc.), but these analyses just shift the goal posts. Why are these problems not seriously addressed?

What is needed is a deeper political economy analysis of the Canadian techno-economic challenge and why Canada seems so resistant not just to taking bold reform steps, but also even acknowledging that such steps might be needed.

This report argues that Canada suffers from three major limitations: 1) no strong political coalition for a dynamic, industrial capitalism supported by techno-industrial policy; 2) weak and shallow analysis that continues to "paint within the numbers" and not challenge conventional thinking, dominant interests, and political ideology; and 3) deeply embedded institutional and cultural factors that limit the emergence of a developmental state that advances needed creative destruction. And related to all this is a level of comfort, wherein many Canadians deny the possibility that something is seriously wrong and structural change is needed.

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The presence of all these factors does not bode well for Canada's economic future. Absent deep change, path dependency suggests that Canada will keep limping along, becoming more and more a natural resource state, akin to what Australia has evolved into. To be sure, as long as global natural resource prices remain relatively high, continuing to do so could produce a comfortable existence for Canada. But it would certainly be an economy that is fundamentally different than what Canada was in the post WWII years.

A brief personal note: I write this as someone who was born in Canada but has lived in the United States since I was 8 years old. By no means would I ever call myself an expert on Canada, although I have long studied the Canadian economy. I do, however, consider myself an expert in the field of national developmentalism and techno-economic policy and analysis—looking at not just the United States but also the rest of the developed world. And so, as an outsider, I do not have the in-depth knowledge of the Canadian system of someone who has lived in Canada their entire adult life. But I do believe I have useful comparative knowledge and perhaps more degrees of intellectual freedom to offer helpful insights. I hope that is the case.

Finally, my ancestors came to Canada from Ireland in the 1840s and England in the 1870s and settled in Peterborough. We moved to the States when I was a boy because my father's company

(Toronto Dominion Bank) had asked him to manage operations in the U.S. Midwest. But I still have relatives in Canada. I say that to make clear my deep affection and admiration of Canada. My analysis and recommendations therefore are not intended to come from an "ugly American," but as a dual citizen who deeply wants Canada to thrive and be the great country it can be.

POOR PERFORMANCE

Virtually all indicators of Canadian productivity, innovation, and competitiveness are problematic, especially if Canada benchmarks itself against global leaders. This is true both in terms of current values and past trends.

Productivity

Canada's productivity problem is neither cyclical nor recent. It is structural, longstanding, and, by comparison with the United States, severe. Organization for Economic Cooperation and Development (OECD) data shows that in 2023 Canadian workers produced US$74.70 in output per hour worked, compared with US$97.00 in the United States.[1] That means Canada operated at roughly 77 percent of U.S. labour productivity levels.

The longer-run comparison is worse. As our previous information Technology and Innovation Foundation (ITIF) analysis notes, from 1982 to 2002, U.S. labour productivity growth was 51 percent faster than Canada's.[2] From 2002 to 2022, it was 160 percent faster. Canada did have a brief period in the early to mid-2010s when it kept rough pace with the United States, but that proved temporary. Since then, the gap has opened again. This is not a story of one bad year, a temporary commodity shock, or statistical noise. It is the continuation of a much longer divergence.

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OECD analysis similarly finds that, from 2019 to 2023, Canada's labour productivity growth averaged just 0.5 percent, well below the United States and below what would be needed even to hold Canada's relative position. In other words, Canada is not merely failing to catch up. It is continuing to fall behind.[3]

This weakness is broad based, not simply the result of an unfortunate industrial mix. OECD analysis finds that Canada's sectoral composition explains only a minor share of the productivity gap with the United States.[4] The problem lies mostly within sectors, where Canadian firms tend to be less productive and invest less in the assets that raise output per worker. Only 5 of 19 manufacturing sectors saw more than 2 percent annual productivity gains from 2011 to 2021, a very low rate, especially for sectors that have to compete internationally.[5]

Per Capita Income

When benchmarked against other global leaders, Canada also falls short in per capita income. Indeed, in 2024, when compared with the United States, Canada's real gross domestic product (GDP) per capita, adjusted for purchasing power parity (PPP), was $51,682, while U.S. GDP per capita was $72,375, meaning Canada fell short by $20,693 (a 40 percent gap).[6] And without Toronto's economy, Canadian GDP per capita would be 4.6 percent lower.[7]

More concerningly, this gap has only been getting wider over the decades. According to an analysis by *The Hub*, from 2014 to 2024, Canada's real GDP per capita PPP grew by just 3.2 percent (averaging 0.4 percent per year) compared with U.S. growth of 20.2 percent (averaging 1.9 percent annually).[8] Moreover, when compared with other OECD nations, Canada's real GDP per capita falls short. OECD data shows that while Canada's GDP per capita PPP was $51,682, the average OECD nations' GDP per capita was still higher at $52,034.[9]

At the Canadian provincial level, U.S. states' GDP per capita surpassed that of Canadian provinces. Indeed, Canada's Alberta province ranks the highest in GDP per capita PPP of all provinces, but it still fell behind 19 U.S. states.[10] Of course, it's no surprise that it fell behind the wealthier states of New York, Massachusetts, and California. But it also fell behind smaller, less wealthy states, such as Nebraska, Minnesota, and North Dakota.[11] The next Canadian province with the highest GDP per capita, Saskatchewan, fell behind South Dakota, Nevada, and Iowa.[12] Ranking 46th, British Columbia's GDP per capita of $66,400 fell behind some of the United States' smaller states, including Indiana, Arizona, and Louisiana.[13] Quebec's GDP per capita of $60,100 ranked even lower and behind Alabama, Arkansas, and West Virginia.[14]

Canadian GDP per capita is much lower than the United States' and the gap has only been getting larger over time. And for anyone who cares about the well-being of Canadians, that should be a wake-up call.

Despite data showing that Canada's GDP per capita is falling behind the United States', some proponents claim that Canada is not performing as poorly as the numbers show. Indeed, an article by Jim Stanford, the president of the Centre for Future Work, a progressive labour economics research institute, asserted that the growing gap in GDP per capita of the United States and Canada is flawed because GDP per capita was used as the metric.[15] He sought to minimize the problem so as to forestall needed policy changes, As he stated, "This far-fetched conclusion reflects deep flaws in the use of per capita GDP as a measure of prosperity and living standards … Comparing GDP per capita between Canada and the U.S. is especially fraught because of other methodological problems."[16] In terms of mathematical flaws, he made the assertion that U.S. GDP per capita doesn't include the 11 million unauthorized immigrants and that it doesn't capture the extra 114 hours the average American work ever year.[17] He then went on to note how Canadians have a better quality of life because of a better environment, less income disparity, and higher wages.[18]

First and foremost, these assertions that GDP per capita is a flawed metric could be rebutted by the simple fact that the limitations of GDP per capita affect not just the United States but also all nations, including Canada.

Second, while the federal Census income data does not include as a high a share of illegal immigrants as it does legal residents, it does include most of them.[19] And the difference in work hours explains just 6 percent of the 40 percent per capita income gap. Moreover, in 2024, Canadian real GDP per capita (not PPP) was $44,413 while U.S. GDP per capita was $66,356, a 33 percent gap.[20] Yet, when the 11 million unauthorized immigrants are added into the U.S. population, U.S. GDP per capita was still $63,277, meaning that U.S. and Canadian GDP per

capita had a 31 percent gap.[21] In other words, the 11 million unauthorized immigrants did not really affect the gap.

Moreover, Canada's real GDP per capita growth is lagging behind not just the United States' (where there are apparently uncounted immigrants and higher work hours) but also many other nations. Indeed, from 2014 to 2024, Canada's total real GDP per capita growth was 3.2 percent, falling behind 35 nations, including Turkey, Latvia, Costa Rica, Chile, and Italy.[22] Unless these 35 nations also have many unauthorized immigrants and higher work hours and Canada can guarantee that its measures do not have these same issues, Canada is facing more than a measurement problem.

Third, Stafford says that Canada performs as well as the United States does when it comes to median, as opposed to mean per capita, income. First, that does not appear to be the case. U.S. pre-tax mean income in 2023 was $80,610.[23] Statistics Canada has reported that Canadian after-tax median income was $74,200.[24] Median after-tax median income for the United States was approximately $68,000, but when converting CAD to USD, the United States still leads by roughly $14,000–$15,000. Finally, while excess income inequality is not desirable, it is worth noting that of every dollar that high earners make in the United States, approximately 30 cents goes to local, state, and federal taxes, which in turn helps all Americans.

In sum, Canadian GDP per capita is much lower than the United States' and the gap has only been getting larger over time. And for anyone who cares about the well-being of Canadians, that should be a wake-up call.

International Competitiveness

Canada's non-natural resource competitiveness problem is visible in its shrinking presence in globally traded advanced industries. One useful measure is the location quotient, which compares a sector's share of the Canadian economy with that sector's share of the world economy: a score above 1 means Canada is more specialized than the global average, while a score below 1 means Canada has less of the industry than the global average.

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ITIF's forthcoming 2026 Hamilton Index, which aggregates performance across 10 advanced-industry sectors (e.g., machinery, information services, chemicals, motor vehicles, etc.) shows that Canada's national location quotient fell from 0.87 in 1995 to just 0.59 in 2022. That put Canada not just below the global average but also behind countries such as Argentina, Russia, and Indonesia. For a G7 economy sitting beside the world's largest market, this is a striking measure of industrial slippage.

The automotive sector provides the clearest example. In 1995, Canada accounted for 3.5 percent of global motor vehicle output. By 2022, that had fallen to just 1.1 percent. Mexico, by contrast, rose to 5.6 percent. The same pattern of loss appears, to varying degrees, in machinery, computers and electronics, pharmaceuticals, and electrical equipment.

What is most troubling is not just how many sectors are underweight today but also how many have deteriorated from positions of relative strength. In 2022, only other transportation

equipment (rail, air, and sea equipment) was strong, with a location quotient of 1.25, while IT and information services was at the global average of 1.00. Basic metals dropped from 1.31 in 1995 to 0.57. Chemicals slid from near parity at 0.96 to 0.54. Computers and electronics declined from 0.65 to 0.20. Machinery and equipment fell from the mid-0.70s to 0.56.

To be sure, there are pockets of strength. As noted, IT and information services have been performing well, expanding from $4.2 billion in output in 1995 to nearly $50 billion in 2022, and other transportation equipment has also held up comparatively well. But these are exceptions, not the rule. Canada's domestic share of the Hamilton industries fell from 10.1 percent of the economy in 1995 to 6.9 percent in 2022, while the global average stayed roughly flat at around 11.6 percent. Put differently, Canada is becoming less specialized in the industries that most advanced economies depend on to sustain export strength, innovation, and productivity growth.

Innovation

Good measures of innovation are scarce, but it is worth noting that the World Intellectual Property Organization's *Global Innovation Index* ranked Canada 8th in 2011. By 2025, however, it had fallen to 17th.[25] In 2024, Canada did not rank in the top 20 countries for patent applications per GDP or population and was below its expected number of patents given its per-capita GDP.[26] And in 2023, total R&D spending as a share of GDP was 42 percent below the OECD average.[27]

One indicator of this poor performance is the recent increase in emigration of Canadian higher-skilled workers. If Canada were performing well on these three indicators (productivity, innovation, and competitiveness), one would expect to see limited outflows of Canadian knowledge workers. In fact, the analysis by the Hub finds that Canada's net emigration reached 65,372 in 2024–2025, the highest in the past 50 years.[28] Moreover, when only examining emigration, Canadian emigrants reach 120,016 in 2024–2025 almost double the 67,893 in 2015–2016.[29] More concerningly, the Canadians leaving tend to be young professionals ages 20 to 44 and are more likely to work in natural/applied science or finance.[30] In sum, Canadians in their prime years and with degrees in STEM are increasingly leaving to pursue opportunities in other nations.

Both individually and collectively, these performance indicators are troubling. And the fact that they are all going in the wrong direction is even more so. Where is the urgency? Where is the "breaking glass moment" the Bank of Canada warned was needed? To date, it appears lacking, for a number of potential reasons.

CAUSES

The potential proximate causes of this poor performance are certainly widely discussed. These include low business investment in capital equipment and R&D, few high-growth start-ups, limited technology commercialization from universities, contentment with the Canadian market and less focus on exports, and more.

Low Business Investment in Machinery, Equipment, and ICT

Low capital investment is not a new Canadian problem, but it has become markedly worse. C.D. Howe has found that the longstanding gap between Canadian investment per worker and levels in

the United States and other OECD economies narrowed from the late 1990s through the early 2010s, but has since widened sharply; in 2025, Canadian workers likely received only 55 cents of new capital for every dollar received by U.S. workers.[31] Recent ITIF analysis points to the same erosion from a different angle: Canada's productive capital stock fell 8 percent as a share of GDP between 2013 and 2023, with industrial machinery down 19 percent and computers and electronics down 10 percent. Firms that are not replacing and upgrading machinery, equipment, and digital capital end up operating with older, more worn-out tools, and that shows up in weaker productivity.[32] As the Bank of Canada has noted, the gap with the United States in capital spending per worker goes back half a century, but the more alarming change is recent: while U.S. spending has kept rising, Canadian investment levels are now lower than they were a decade ago.[33]

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What matters is not just the amount of business investment, but also what firms are investing in. Headline capital spending figures can blur the picture by grouping productivity-enhancing assets such as software, industrial machinery, and computers with lower-impact purchases. On the measures that matter most for productivity, Canada's performance looks weaker still. Firms are underinvesting in the tools that let workers produce more per hour, which helps explain why the productivity gap with the United States has widened rather than narrowed.

Low Business R&D Spending

Canada's business R&D investment is lower than many other nations. Indeed, in 2024, Canadian firms spent only $9.3 billion on R&D, ranking 14th of 45 nations with available data.[34] When controlling for GDP, Canadian firms ranked even lower at 21st of 44 nations with available data as they only spent 0.4 percent of GDP on R&D.[35] In comparison, U.S. firms spent $746 billion on R&D, ranking 1st of 45 nations.[36] When controlling for GDP, U.S. firms spent 2.6 percent of GDP on R&D.[37] Moreover, Canadian firms' GDP-adjusted R&D spending also fell behind that of Taiwan, Uruguay, China, and Italy.[38]

More concerningly, Canadian firms in advanced sectors, such as software and computer services and aerospace and defense, also spend less than the United States and the rest of the world do in GDP-adjusted R&D investments. Indeed, in 2024, Canadian firms in advanced sectors spent $7.3 billion on R&D, which was $3.27 per $1,000 of GDP.[39] In comparison, U.S. firms spent $23.48 per $1,000 of GDP while the rest of the world spent $7.74 per $1,000 of GDP.[40] As such, this goes to show that Canadian R&D business spending is falling behind not only because of its economy's size, but also because Canadian businesses are indeed spending less than other high-income and lower income nations are.

Few High-Growth Start-Ups

At one level, growth start-ups could be a performance indicator, but they are more accurately described as an intermediate factor. One could get strong growth and innovation through expansion of large firms or the creation of start-ups. However, relatively poor performance of Canadian start-ups is a factor in overall techno-economic performance weaknesses.

Indeed, according to OECD data, Canada has 17,188 start-ups (the data does not specify the specific year). Canada's start-ups as a share of the workforce amount to 0.08 percent, while U.S.

share of start-ups is 0.11 percent.[41] Canada's start-up share of labor force does surpass that of Europe at 0.03 percent and Australia at 0.06 percent.[42] The number of Canadian financing deals is only 0.05 percent of its labor force while U.S. is 0.09.[43] Moreover, Canada's venture capital funding as a share of GDP is only 3.9 percent while the U.S. share is 6.9 percent.[44]

WHY? CANADIAN CHALLENGES

There is no lack of assertions as to the causes of Canada's poor final and intermediate factor performance. Most appear to have some level of explanatory power. But some appear to be assertions with little evidence to back them up.

Dubious Causes

In an attempt to explain Canada's poor performance, a number of causes have been asserted, some widely, that on closer examination do not appear to hold up to scrutiny. Many of these "causes" feel like people are throwing things against the wall to see what sticks, especially to advance already-identified vested interests or ideological predilections.

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Oligopoly

In the search for causes of and culprits for Canada's weak techno-economic performance, a convenient scapegoat is oligopoly or even monopoly.[45] The progressive Left in particular loves this explanation because it provides backing for its anticorporate agenda.[46]

There are many problems with the thesis. First, the Canadian government stopped collecting data on industry concentration over a decade ago, so it's impossible to assess the level of industry concentration. In contrast, the U.S. Census Bureau has regularly published data that completely negates the "monopoly is growing" narrative in the United States.[47] So without better and more up-to-date data, assertions such as this in Canada should be viewed with caution.

Second, the sectors most always tarred with the monopoly brush—airlines, banking, groceries, and telecom—are largely domestic-serving, not traded sectors, so any reduction in capabilities because of market concentration would have limited effects on Canada's poor international competitiveness challenge. Likewise, they would have limited effects on Canada's start-up ecosystem. Moreover, these sectors account for approximately 7 to 9 percent of Canadian GDP. Assuming, for the sake of argument, that the "monopoly" tax in terms of reduced productivity is 25 percent (a very high estimate), that results in around a 2 percentage point drag on Canadian productivity.

In addition, there is almost no evidence of monopoly profits. The Canadian anticorporate movement asserts that monopoly leads to excess pricing and gouging of consumers. If that is the case, then the evidence would be seen in excess profits. But an analysis by the Centre for Canadian Innovation and Competitiveness (CCIC) shows that Canadian net margins are not unusually high in the sectors most often accused of monopoly abuse.[48] Telecom margins are lower than in the United States, Western Europe, and Japan, while banking margins are roughly comparable, and only groceries are somewhat higher, though not by much. If these are

monopolists, they are incredibly inept ones that can't use their market power to extract monopoly profits.

And finally, there is no analysis of whether the proposed solution is worse than the problem. One reason why Canada likely has higher concentration ratios than the United States does is because it is not fully integrated into the U.S. market and therefore Canada's market is simply not large enough to support many players without a significant diminution in economies of scale, and hence productivity. Breaking up companies into even smaller ones would likely reduce productivity.

Foreign Investment

Another popular cause that has been asserted, especially recently, is that foreign companies operating in Canada are squashing indigenous Canadian companies and especially entrepreneurs. If we could just limit these damn Americans, all would be well. The fact that the push for this line of reasoning comes from small domestic Canadian tech companies, many of them members of the Jim Balisile-started Council of Canadian Innovators (CCI), that seek government favors and protection from foreign competitors, should tell us all we need to know. To be clear, some of what CCI advocates for, such as access to talent and financing, would help Canadian innovators—domestic and foreign companies in Canada.[49] But their advocacy for "marketplace frameworks" and "access to customers" is an attempt to have the Canadian government hamstring their foreign competitors while raising prices for Canadian consumers and business.

If SHIELD is true to its mission, it should call on government to expel Ford, GM and Stellantis from Canada and build up only "domestic" automobile production.

The same is the case with the Balsillie-funded SHIELD Institute; appropriately named to shield Canada from outside competitors.[50] To be sure, it's stated goal is a good one: "We work to ensure Canada builds and sustains the domestic capacity—intellectual, industrial, institutional, and democratic—required to thrive in an increasingly complex and competitive world."[51] The problem is that, unlike virtually all other OECD nations, it defines domestic capacity as only being Canadian-owned companies as opposed to capacities in Canada from Canadian and foreign firms. If SHIELD is true to its mission, it should call on government to expel Ford, GM, and Stellantis from Canada and build up only "domestic" automobile production.

Like the "monopoly is the cause," the "Americans are the cause" is equally wrong. The reality is that foreign direct investment into Canada plays a key role. Foreign companies invest considerable amounts in R&D. They are more productive. As ITIF has shown, foreign multinationals also function as entrepreneurial feeder systems, giving Canadian workers exposure to global product development, management practices, and markets before they go on to launch firms of their own.[52]

Moreover, their arguments do not hold water. Balsillie's signature claim is that instead of investing in Canadian firms to help them develop, own, and sell Canadian intellectual property, governments have poured billions into foreign multinationals to set up domestic branches, while most of the value generated—particularly through intellectual property (IP) ownership—flows out of the country. But this argument mistakes one useful asset for the master key to national prosperity. Even if Canada somehow matched the United States in net IP income as a share of

GDP, the direct gain would still amount to approximately 0.95 percent of GDP, roughly the equivalent of doubling the size of the social assistance sector of the economy.[53] Useful, yes. Transformative, no. Canada's techno-economic weakness cannot be reduced to a shortage of domestically owned patents and licensing income.

Second, decades of mainstream economic research show that multinational subsidiaries pay higher wages, introduce better management practices, and generate technology spillovers to domestic firms. The "branch plant" critique ignores this substantial empirical literature. Foreign-invested firms in Canada are generally more productive than equivalent domestic firms, not less.[54]

Third, they correctly note that too many Canadian entrepreneurs sell out to U.S. companies. But that is not the fault of American companies. It likely simultaneously reflects both a founder culture too often content with cashing out instead of building up and a domestic market too thin to offer serious alternatives. Who, exactly, are these firms supposed to sell to in Canada? There are not many large Canadian technology companies waiting to acquire and scale promising start-ups, nor is there a deep reservoir of patient domestic capital prepared to buy out founders and build firms for the long haul. Blocking acquisitions does not solve that problem. It just shrinks the already limited set of pathways through which firms and founders can realize value.

Housing and Real Estate Crowding Out

It is commonly asserted that Canada's astronomical housing prices, caused by massive immigration and local and provincial restrictions on new construction, has led to reduced capital investment in productive assets, such as machinery and equipment.[55]

This might be true if Canada were building lots of houses that required bank financing. But it is not. According to the Fraser Institute, Canada has built less housing per capita in recent decades than it did in the 1970s. In the 1970s, a new home was built for every 1.2 additional Canadian inhabitants, versus one for every 2.1 new inhabitants in the 2010s.[56] Today's high housing prices are not a demand on capital; they are a recirculation of capital. Sellers of land and housing make high profits, which they presumably then reinvest directly or indirectly in Canada, leaving the overall capital available for investment unchanged.

Valid Causes

While some purported causes of Canada's techno-economic problems appear dubious, other ones appear to have more validity and weight.

Small Domestic Market Made Smaller by Interprovincial Trade Barriers

The long-discussed interprovincial trade barriers are not just tariffs in disguise but also a dense accumulation of differing provincial rules on professional licensing, trucking and transport regulation, product standards, procurement, and the sale and movement of goods such as alcohol. The result is that firms looking to scale across Canada often face the kind of compliance burden one would expect in crossing national borders, not provincial ones. That raises costs, reduces competition, weakens labour mobility, and denies firms the scale they need to invest, specialize, and become more productive. This is not a minor inefficiency. The International Monetary Fund (IMF) estimated that eliminating nongeographic internal trade barriers could raise Canada's real GDP by nearly 7 percent over the long run, or $210 billion in 2025, largely through stronger productivity and more efficient allocation of capital and labour.[57]

Regulatory and Permitting

Canada is not the easiest place to do business. For example, OECD ranked Canada 34th of 35 OECD countries for permitting approval times as of 2020.[58] The World Bank listed the time to receive a construction permit at 249 days, more than 3 times the number of days in the United States.[59]

Too Many Small and Medium-Sized Enterprises

Canada has a higher share of small businesses than many nations do, especially the United States. While some see this as a plus, the reality is that it is a hinderance. On average, small Canadian companies are less productive and innovative than larger ones.[60] Differences in production process and capital intensity lead small firms to be less productive than large firms; however, exactly how much of a productivity disadvantage small firms have is essential information. According to a report published in 2014, Canadian small businesses were just half as productive as large firms were; U.S. small firms, on the other hand, were 67 percent as productive.[61]

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There are multiple reasons for this. One is Canada's economy is relatively small size, which makes it harder to scale. Another is that Canadian policy puts a regulatory and tax thumb on the scale in favor of small business. As OECD wrote, "[Canada's] preferential small business tax schemes can act as a lid on firm size at the threshold between the preferential rate and regular rate of taxation and tend to largely benefit small mature existing firms rather than start-ups and entrepreneurship."[62] Canada also has a preferential R&D tax credit rate for small companies, and a slew of provincial and national government regulations exempt or reduce regulatory demands for small business.

High Bankruptcy Costs

Dynamic business and labor markets are important for rejuvenating an economy by allowing less-productive and less-innovative firms and job positions to be replaced by others. But Canada's insolvency regime is more creditor protective and procedurally slower than the U.S. system, making such creative destruction more difficult.[63]

Hard to Fire Workers

Certainly, compared with the United States it is harder to fire workers in Canada. In particular, provinces with common-law severance obligations make it difficult and expensive to let go of employees. Courts determine "reasonable notice" based on the Bardal factors (age, length of service, character of employment, availability of similar employment).[64] A mid-career manager with 15–20 years of service can routinely be entitled to 18–24 months of notice or severance pay.[65] Canadian courts have been aggressive in extending constructive dismissal wherever a unilateral change to employment terms by an employer constitutes a dismissal. These not only reduce the incentives to hire and the ability to fire, but also reflect a culture that puts individuals' self interest ahead of the national interest. In contrast, Canada has no legal or common-law obligations for severance.

Less-Deep Venture and Growth Capital Markets

This is commonly pointed out. Canadian venture capital markets are better than European markets but not better than the American one. According to OECD, Canadian venture capital funding is 3.9 percent of GDP, compared with 2.9 percent in the EU and 6.9 percent in the United States. And deal size is about twice as large in the United States as in Canada.[66]

High Immigration Rate

Canada dramatically has expanded immigration rates in the last decade. Stat Can found that, in 2021, before the recent reduction in immigration, the share of Canada's population that was foreign born was the highest since Confederation.[67]

The conventional view is that immigration has no effect on productivity, but there is considerable evidence in the United States that low-skill immigration reduces productivity growth. Greater numbers of low-wage workers reduce capital intensity, making it easier for employers to then substitute those workers for machines. A report by the Migration Policy Institute asserts that "production techniques shift in response to less-educated immigrant labor, with employers less likely to substitute capital and/or technology for less-educated labor when more immigrants are available."[68] Canadian immigrants earn less than native born Canadians.[69] This gives employers a "low-road" outlet to boost output and cut costs by hiring low-skilled, lower-cost workers rather than by investing in capital equipment and training.

BUT WHY? THE POLITICAL ECONOMY OF STABILITY

Why has Canada not responded with a greater sense of urgency? Rather than "break glass," the response has been mostly a collective yawn. I offer three main factors: 1) faulty or shallow analysis; 2) a weak coalition for dynamic and productive capitalism and related policies; and 3) a host of cultural and institutional factors that keep people from wanting to act.

Faulty or Shallow Analysis

It is striking, at least to an outsider, how much of the analysis of Canada's techno-economic problems and challenges are relatively facile and, in some cases, just wrong. If Canada wants to change, it will have to reject these easy answers and go deeper.

The Talent and Research Input Illusion

A primary analytical myth is that Canada should be doing fine because it has lots of the right ingredients: in this case, great universities and educated workers. The assumption is that these ingredients translate into successful outcomes. But they do not—and especially not in Canada.

One recent study compares a number of leading countries, including Canada and the United States, to determine the relationship between increases in graduation rates in higher education and transformation to a more tech-based economy. It finds that Canada is alone among the nations in which an increase in skilled workers does not support technological change in the economy, and that "skilled workers were allocated mainly to the Skilled Non-Market Services" (e.g., health care, higher education, government, etc.).[70] In fact, the coefficient for high-tech industry in Canada is negative, meaning more education is associated with less private sector high-tech industry, whereas in other nations, it is positive.

Green Industry Optimism

Like the Biden administration in the United States, the Trudeau administration placed many of its eggs in the green industry basket. Yes, the thinking went, Canada may be losing traditional industry, but it would become a leader in the next generation of industry: green.

Case in point: a report by the Centre for Industrial Policy on what a Canadian industrial strategy should look like, says:

> Canada faces a long-standing productivity crisis that the current moment both intensifies and offers a chance to address… The net-zero transition, rather than being simply a cost, represents Canada's clearest opportunity to reverse this trajectory. Firms scaling next-generation battery technologies, sustainable aviation fuels, mass timber, and green steel are exactly the kind of high-value, innovation-intensive industries that drive productivity growth.[71]

Perhaps not surprisingly, this assertion was offered with neither logic nor data. In fact, green steel and sustainable fuels, for example, are both by definition more costly than "dirty" steel or fuel.[72]

Similarly, Canada's overarching focus on green industries appears not to be supported by the evidence. As an example, according to Natural Resources Canada (NRC), the energy sector accounts for 9.8 percent of GDP.[73] The methodology used by NRC is not transparent. But let's assume it is actually referring to energy production. The first thing to know is that, according to NRC, the sector accounts for 3.6 percent of employment. In other words, the sector, primarily being the petroleum industry, is a high-paying sector, producing about three times as much GDP per worker as the overall economy does. That means the idea that green industry growth will come at the expense of fossil fuels and average Canadian wages will decline.

A primary analytical myth is that Canada should be doing fine because it has lots of the right ingredients: in this case, great universities and educated workers. The assumption is that these ingredients translate into successful outcomes. But they do not—and especially not in Canada.

Second, it appears that, after all the focus on growing Canada's green industries, Canada runs a sizeable trade deficit in the sector. According to Statistics Canada's Environmental and Clean Technology Products Economic Account (ECTPEA), total environmental and clean technology (ECT) Exports in 2024 were $20.2 billion.[74] But the ECT trade deficit was $15.6 billion in 2024.[75] Moreover, when examined for longer periods, Canada's ECT trade deficit has been increasing. Indeed, from 2010 to 2024, Canada's ECT trade deficit increased 20-fold from a deficit of $778 million to $15.6 billion.[76] This is not to say that Canda should or should not work for the green transition, but if it does, it should not base its action on faulty expectations of industrial renewal.

The Immigration Hope

The Century Initiative, established in 2009, advances the thesis that Canada has too few people and that it should seek to get to 100 million people by 2100, virtually all by immigration.[77] That movement, endorsed by many in the business community seeking more customers and cheaper labor, as well as the labor movement seeking more members, and progressives who favor "people

of colour," appears to have had a distinct influence on the Trudeau government and its massive increase in immigration.[78] When one of the founders of the Century Initiative, Dominic Barton, was asked to chair a government economic advisory panel in 2016, to no one's surprise, increased immigration was presented as a key recommendation.[79]

But the logic never made much sense. One of the arguments the panel, and the Century Initiative, gave was that Canada needed mass immigration because the population was aging. But in 2016, Canada's position was on the younger side of the OECD, around the middle-to-lower tier on aging. Canada's 65+ share hit approximately 16.9 percent in the 2016 Census, right around the OECD average.

Second, the advisory panel was always vague about the benefits, arguing correctly that it would lead to a higher GDP (how could it not?), and also that increases in GDP from immigration would benefit Canadians. In reality, by raising housing prices, road congestion, and health care delays, one could argue it made Canadians' lives worse.[80] But the Barton panel went further, stating that immigration would help boost per capita income when, as discussed, there was no evidence for or logic to that statement.[81] The only way it could have boosted per capita income is if the preponderance of immigrants were scientists and engineers. In fact, most immigrants were low skilled. Moreover, the surpluses of low wage labor was an incentive for Canadian businesses to hire more workers rather than boost productivity.

The Barton panel went further, stating that immigration would help boost per capita income when there was no evidence for or logic to that statement.

The panel defended its claim that this would produce growth by citing a Stats Canada paper titled "Immigration, Business Ownership and Employment in Canada." The paper did find that immigrants started businesses at a higher rate than do native Canadians. But the Commission ignored the rest of the findings. Immigrant businesses employed fewer people than native-owned businesses did. Almost half were unincorporated self-employment and most of their earnings came from paid jobs. And most of the jobs were more in local-serving sectors such as retail trade; real estate and rental and leasing; accommodation and food services; transportation and warehousing; and construction than in other industries.

Infrastructure as the Answer

Another answer offered to the Canadian challenge is infrastructure. This was a key recommendation of the Barton panel.[82] Indeed, the title of a 2016 paper they released was "Unleashing Productivity Through Infrastructure," which claims, "infrastructure drives economic productivity year after year to the tune of 20 to 50 cents on every original dollar invested."[83] The paper provides no specific source for its claim, other than McKinsey (where Barton worked) and the International Monetary Fund (which looks at infrastructure in developing nations where the impact on productivity is still high because it is not yet built out).[84] In fact, most economic research shows that, in already developed nations, increases in physical infrastructure such as roads, bridges, and transit do little to boost productivity, especially when considering the diversion of capital needed to fund them.[85] Moreover, like the immigration argument, the Barton paper argued on Keynesian terms that infrastructure spending creates jobs. But it does not,

unless the economy is in a recession and the spending is debt financed. If it is near or at full employment, spending on infrastructure through debt just raises inflation.

Box 1: The Barton Panel Income Growth

It's worth noting just how far off the Barton panel goal was for income growth. The council's self-defined benchmark was to lift median household income to $105,000 in 2030, up from about $80,000 at the time, and well above the $90,000 expected if Canada failed to adopt new ways of generating wealth.

The most recent Statistics Canada data (for 2023) shows median household income of $121,000. But the Barton target was set in 2016 dollars. Cumulative Consumer Price Index inflation since 2016 has been roughly 25 to 30 percent. That means the real-term equivalent of $105,000 in 2016 dollars is approximately $130,000–$135,000 in today's nominal dollars. On that basis, Canada is roughly $25,000–$30,000 short of the target and only falling further behind.

Moreover, real GDP per capita is currently near levels observed in 2017—having declined in five of the past six quarters and sitting 2.5 percent below pre-pandemic levels. Far from gaining $15,000 in real terms, Canada is actually down thousands relative to its own historical trend line.

Moreover, OECD predicts that Canada will achieve real per capita GDP growth of only 0.7% per annum over 2020–2030, placing it last among advanced countries.

No Strong Coalition for Productive, Dynamic Capitalism and Policy

Better and deeper analysis of problems and causes will help Canadian policy by steering it more in the direction of solving the most critical problems and away from measures that do little or even make matters worse.

But for many of these issues, policymakers have been aware of the problems for many years. There is something more at work than just limited analysis wrapped with ideological blinkers. One factor appears to be the lack of a strong set of forces pushing for Canadian technology-based growth and transformation.

The relative political economy weight advocating for robust technology and innovation polices in the United States is approximately nine times greater than in Canada.

A Strong Natural Resource Sector and a Weak and Protectionist Canadian Tech Sector

As noted, the Canadian tech sector is relatively small. And compared with the United States, it spends very little to shape policy, as does Canadian business overall. And it is more oriented toward protection from foreign company competition than it is on driving effective Canadian tech policy.

To the extent that there are other voices for technology policy, they come largely from universities whose almost sole goal is more government funding for basic research, and from government labs that seek stable budgets. And most Canadian think-tank, academic, and civil-society voices are of technology and business skeptics, if not downright opponents. Michael Geist, a leading anti-

tech populist academic, is a case in point, but he is just one of many anti-innovation voices in Canada.[86]

We see this when comparing the ratio between the output of the Canadian natural resource sector and the tech sector, which is about 2.7 (natural resources are approximately 16 percent of GDP, while tech is approximately 5.8 precent). Contrast that to the United States where the natural resource sector is about 30 percent the size of the tech sector. In other words, the relative political economy weight advocating for robust technology and innovation polices in the United States is approximately nine times greater than in Canada.

On top of that, the United States has a technology sector that largely sees foreign companies in the United States (at least companies from countries that play by the rules) as partners and allies. Canadian tech companies see them as adversaries and spend their time lobbying government to hobble their competitors. The result is weakened support for strong technology policy for Canada.

Banking and Real Estate

As noted, skyrocketing housing prices in Canada benefit, at least in the short run and assuming no price collapse, the banking and real estate sectors. With plenty of money to be made in this sector, banks have less urgency to push for turning around a stagnant and uncompetitive Canadian economy.

Unions

Unions in Canada and the United States largely oppose technological innovation if it might cause job loss, or even task reorientation.[87] The problem is significantly worse in Canada, where unionization rates are roughly double U.S. private sector rates, while the Canadian public sector is heavily unionized at close to 80 percent. Amazingly, Canada experienced more than double the number of strikes in 2024 than the United States did, a 20 times greater rate per capita.[88] And Canadian unions pressure government not to support productivity, competitiveness, and innovation, but rather to expand worker rights, redistribution, social justice, and gender equity.[89]

Canadian universities become the voice of the innovation community, and that voice wants one and only one thing: more money and fewer strings.

Universities

Canadian universities, to a greater extent than universities in the United States, resist government efforts to pressure or even incent them to focus more on industry research needs and commercialization. They are the main voices the government listens to when formulating R&D policy, yet they want one and only one thing: more money with fewer strings.

A Centre-Left Political Ecosystem Built Around Redistribution and Social Services

The New Democratic Party (NDP), while not large, is a left wing social democratic party laser focused on social justice and climate. As such, it plays a key role keeping the Liberal Party from going too far to the centre, just as the Sanders/AOC wing of the Democrats in the United States keeps the Democratic party from reverting toward its former left-centrism. Even so, the Carney government has not broken fully with the Liberal preference for affordability politics and social-program maintenance. Its agenda contains more serious pro-investment and productivity

measures than before, but it remains a hybrid, not a full-throated program of productive, dynamic capitalism.

Conservatives Favor National Resources and Are Skeptical of a National Industrial Strategy

The Conservatives' economic agenda is grounded in a kind of Ricardian comparative advantage, not a Schumpeterian competitive advantage framework. In this thinking, Canada's comparative advantage is its vast natural resources, and if the global market decides that is what Canada is best at, so be it. It also largely eschews industrial strategy, preferring a government that largely gets out of the way of development.[90]

CORE FACTORS: INSTITUTIONAL

In addition to weak analysis and a weak coalition, there are institutional factors. There are two kinds of core factors that get at the heart of why the Canadian governments and elites have not acted more strongly. The first factors relate to structural institutional factors. The second relates to culture and values.

A Weak State

Canada is like what the United States would have been if the states had not ratified the constitution: a federated nation with a relatively weak central government. Like the EU, where Brussels has too little power, in Canada, provinces have too much power and regional identity is so powerful that federal politicians must constantly manage provincial sensitivities. The standard case for federalism (in Canada's case, strong provinces)—subsidiarity, policy experimentation, preference heterogeneity across a vast geography—no longer holds water.

The textbook argument is that decentralization allows policies to match local preferences, enables jurisdictions to compete for mobile capital and labor, and produces policy innovation that can diffuse nationally. In the Canadian context, this argument was always weaker than it appeared.

The jurisdictions aren't actually competing meaningfully for capital and labor in a disciplined way. Labor mobility across provinces is much lower than across U.S. states—partly professional licensing fragmentation, partly language, partly cultural attachment. Provinces can maintain bad policies without losing population at rates that would force reform.

Canada is like what the United States would have been if the states had not ratified the constitution: a federated nation with a relatively weak central government.

When provinces have substantial independent revenue bases, they develop entrenched bureaucracies, independent political agendas, and the organizational capacity to obstruct federal initiatives without being accountable for national outcomes.

There are several results. The first is regulatory balkanization: Internal trade barriers that are in some dimensions more restrictive than international trade barriers. Professional licensing that doesn't transfer across provincial borders. Securities regulation that is fragmented across 13 jurisdictions. In a world where more and more of commerce is cross-border, provincial regulatory fragmentation is an important drag on growth.

Second is interprovincial policy warfare. The Trans Mountain pipeline saga is the most visible example, as British Columbia was able to use environmental regulation to block a project in the national interest, using jurisdictional ambiguity as a weapon.

Finally, strong provinces with fiscal capacity means there are fewer resources at the national level to advance the national economic interest. This is similar to the EU, which provides relatively little R&D funding, leaving that up to the nation states that underinvest, largely because of geographic spillovers. In fact, as a share of GDP, Canadian governments spend 40 percent less on R&D than does the U.S. government. Similarly, if Canada wants to drive innovation in the higher education system to align it more closely with industrial need, Ottawa has relatively few tools by which to do so given that most higher education funding comes from the provinces.

Three and a half centuries of operating under someone else's strategic umbrella have produced a cautious state that prioritizes reducing risk over dynamic change.

A Cautious State

The Canadian state is a cautious one, largely the result of Canadian history and dependency. Membership in the British empire meant Canada had guaranteed markets, guaranteed security, and a metropolitan centre that handled the hard problems of currency, defense, and global trade negotiation.

The transition to American hegemony after 1945 reproduced the same basic structure with different branding: NORAD, NATO, and the bilateral defense relationship. The U.S. market provided guaranteed export demand. Canada could free-ride on American dynamism without having to generate its own. In short, Canada never had to build serious hard power or make the wrenching fiscal and organizational choices that defense competition forces.

Three and a half centuries of operating under someone else's strategic umbrella have produced a cautious state that prioritizes reducing risk over dynamic change. Societies that have never faced genuine existential economic pressure don't develop the political capacity for painful self-reform because they've never needed it. (See box 2.) The political muscles required to push through reforms that hurt organized constituencies in the short run in exchange for diffuse gains in the long run atrophy without use. That's not the case with countries that have built the most productive and innovative economies: Germany, Japan, South Korea, Taiwan, Israel, and Finland. All faced genuine existential pressure at some point that forced deep institutional and cultural adaptation.

The key question today is whether the Trump tariff shock will be a wake-up call or just one another way for Canadians to assert their superiority: See, we are not like those crazy MAGA Americans!

Box 2: The Politics of National Innovation Success

Perhaps one of the most interesting and least understood questions in technology and innovation policy is why certain countries are good at innovation and others are not. One theory has been offered by Georgia Tech professor Mark Zachary Taylor in his book *The Politics of Innovation*.

Taylor synthesized more than 50 years of theory and research on national innovation rates, bringing together the current political and economic wisdom and the latest findings about how nations become science and technology leaders. It can be hard to pinpoint what makes innovative countries so innovative.

According to Taylor, traditional political and economic frameworks do not provide adequate answers to this question. Size, resource scarcity, military spending, and labor abundance do not fully account for a country's innovation. For example, countries that invest heavily in their militaries (the United States and Israel, for example) aren't more innovative than those that don't, such as Switzerland.

Likewise, a country's policies do not impact innovation as profoundly as many may assume—Japan and the United States have drastically different economic policies, yet both remain innovation powerhouses. Even whether a country is a decentralized democracy does not play a huge role in a nation's innovation success. For example, plenty of established democracies haven't been particularly innovative. Granted, Taylor noted that policies and cultural traits do influence innovation, just not to the significance that many have previously assumed.

According to Taylor, there's no single set of policies that a country must adopt in order to innovate. "Countries don't have to be like America or Japan or China in order to get ahead. They can design their own sets of policies and solutions to fit their particular circumstances, economies, politics, histories, and cultures," he said.[91]

If policies and cultural factors aren't the main drivers behind innovation, what causes it? According to Taylor, it all comes down to how countries build their networks—or "innovation ecosystems." Countries that are able to bring together the science labor force, provide it with resources, and then build links between it and the business sector are most likely to be successful at innovation.

Two countries Taylor highlighted as being particularly good at this are Taiwan and Israel. In the late 1960s, Israel created highly elite science and technology units in the military. While new technologies were being developed, private companies began popping up, often with partial funding or grants from the government. Israeli business leaders would often go to work in the government and then reenter the business world, creating a sense of trust between the public and private sectors. In addition, the government helped companies build networks with different business groups in the United States. The nation's networking efforts were so successful that Israel was listed as a leading country on the NASDAQ by the 1990s. Taylor noted that even if other countries have established infrastructure, abundant resources, and a strong labor force, they are less likely to succeed at innovation without building networks like Israel did.

Why do some countries do that and others not? According to Taylor, external threats are a key driver. Often, countries want to remain competitive and use the threat of falling behind as their main motivator. For example, the United States dramatically accelerated its technology research after the Soviet satellite Sputnik was launched into orbit. In the same vein, Taylor believes that, during the Cold War, Finland may have chosen not to innovate in order to maintain peace, as too much economic disruption could have led to dire consequences. After the Cold War ended, the

nation wanted to compete economically and thus began focusing a lot more on innovation. Taiwan and South Korea are both strong innovators because of the serious geopolitical threats they face, from the China and North Korea, respectively.

In contrast, countries that face fewer risks and challenges, such as Canada, generally have less political and institutional will to take the difficult steps to drive innovation. To coin a U.S. phrase, the $64,000 question is whether Trump's nationalism will serve as that catalytic wake-up call. If all it does is spur anti-American sentiment, then probably not. But if it wakes up Canadians to realize that they are now on their own, then perhaps it might.

CORE FACTORS: VALUES

It is easy for economists to conceive of innovation success as depending on prices and other market forces. The reality is values matter. If a nation does not value growth and competitiveness, it will get less of them.

When the than the coalition for growth, it should be no surprise that more focus will be on distribution rather than growth policies.

Redistribution as the Dominant Political Value

Canadian political culture, like that of the EU, generally treats distribution as more important than growth. The NDP explicitly, and also large portions of the Liberal coalition, are more animated by who gets the pie than by making the pie bigger. To be sure, redistributionist forces have grown in Europe, the United States, and Commonwealth nations, in part because of the excesses of neo-liberalism but also because of the large and consistent narrative coming from left-of-centre academics and civil society organizations that growth only benefits the wealthy and that the middle class has been hollowed out. Both are wrong.[92]

When the coalition for distribution is stronger than the coalition for growth, it should be no surprise that more focus will be on distribution rather than growth policies.

Stability as a Key Value

Canadians appear to like the stable life. Provincial income equalization. Limits on layoffs. Broad benefits. Regulation that tilts too much toward risk reduction at the expense of innovation. And more. The early-exit pattern among Canadian start-ups—selling to U.S. acquirers rather than scaling—is perhaps a reflection of that. Easier to exit and live the good life.

As one historian argued:

> Colonial Canadians started with the collective, not the individual. Liberty to them was not an aggregate of individual pursuits of happiness. It was the sum of the fundamental rights that a government had to guarantee and protect for its citizens, and which enabled them to be fully part of the collective endeavors of a stable and safe community … It was a trade-off between unfettered individual freedom and social stability that people seemed willing to accept.[93]

While that is certainly a legitimate choice, it is one that is perhaps less suited for a more dynamic and turbulent world wherein creative destruction becomes a core component of success.

Moreover, it is part of Canadian culture to look south of the border with a mixture of envy and smugness. Envy about America's wealth and dynamism. Smugness about Canada's stability, limited gun crime, universal health care, and the like.[94] But smugness appears to win out and as such leads Canadians to be relatively passive in the face of needed structural change.

SHARED ANGLO-SAXON CHALLENGES

While Canada faces a number of challenges that are somewhat unique to it, the country unfortunately has challenges that also plague most Anglo-Saxon economies, including a system of financial short-term capitalism, a dominance of neo-classical economics, and a procedural rather than developmental state. All are major barriers to the development of pro-innovation, -productivity and -competitiveness policies.

Financial Short-Term Capitalism

The shift from managerial capitalism (1920s to the 1970s) to shareholder capitalism (1970s onward) had its centre of gravity in the United States but spread to Commonwealth countries Australia, Canada, and the United Kingdom. What is striking is that, at least in the United States and the United Kingdom, there have been considerable analysis and critique of this development, but such critique is much less pronounced in Canada.[95] While the Canada Pension Plan Investment Board has written on this, it has confined its recommendations to industry, and has not called for government action.[96] Neither has the Caisse de dépôt et placement du Québec.[97] And others, such as the *Financial Post* have been adamant in defending the current system.[98]

At least until the mid-1970s, capitalism was able to better balance multiple goals, including profits and also capital investment and worker and community welfare. Until the late 1970s, there was a general view held by corporate managers that their mission was not just to increase stock price, but also to serve other constituencies, including the workers, the communities in which the companies were located, and the nation as a whole. And before the 1980s, most Canadian corporations made investment decisions on the basis of expectations of long-term returns.

But by the mid-1970s, that system had come under sharp attack from two sources. Intellectually, the attack perhaps started with free market economist Milton Friedman and his highly influential essay, "A Friedman doctrine—The Social Responsibility of Business Is to Increase Its Profits."[99] This soon became an appealing anthem to corporate leaders besieged by radicals, powerful unions, and liberals pressing for vastly more regulation and limits on corporations. Now they could justify ignoring and pushing back against this anticorporate movement on more than self-interested grounds. Boosting profits was indeed in the public interest.

On top of that, the shift in business schools and economics programs, from training-enlightened leaders on the one hand and Keynesian economists on the other, to neoclassical self-interested, market-orientated disciplines helped buttress this new intellectual consensus. Indeed, the rise of neoclassical economics in the late 1970s defined a well-functioning economy as one in which everyone pursued their self-interests in price-mediated markets, and the principal role of government was to get out of the way. As Professor William Lazonick wrote, "Rooted in the neoclassical theory of the market economy, [maximize shareholder value] assumes that markets,

not organizations, allocate resources to their most efficient uses. But lacking a theory of innovative enterprise, agency theory cannot explain how the 'most efficient uses' are created and transformed over time."[100]

On top of that came the argument rooted in agency theory that corporate managers could not be trusted to be responsible with shareholder money. The transformative argument came from Jensen and Meckling, who in 1976 wrote a seminal scholarly paper titled "Theory of the firm: Managerial behavior, agency costs and ownership structure."[101] Where Alfred Chandler had seen corporate leaders as almost heroic figures driving long-term growth and national greatness, the new dominant theory became that managers were self-interested rent seekers since they were playing with other people's money. They approvingly quoted Adam Smith's *The Wealth of Nations*: "Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company."[102]

The shift from managerial capitalism to shareholder capitalism had its centre of gravity in the United States, but it spread to Commonwealth countries Australia, Canada and the United Kingdom.

But this new intellectual consensus that quickly became dominant in business schools across Canada was based not on the actual study of firms and managers confronting uncertainty and regulation, but rather on what Jensen and Meckling called "the theory of agency, the theory of property rights, and the theory of finance" sprinkled with a dose of Pareto optimality. Now managers were the villains and shareholders the heroes. According to University of California, Berkeley Professor David Teece, the corporation became seen as an empty shell; simply a system of organizing people to turn capital into profits, especially net-present-value profits.[103]

The rise of the shareholder value movement and its later evolution into corporate short-termism, or what some call quarterly capitalism, meant that CEOs were rewarded for downsizing firms, limiting investment in capital stock (in order to maximize return on net assets), and paying attention solely to the bottom line. All this enabled the rise of the shareholder value movement—financial capitalism—which tolerates no other corporate purpose than to produce short-term profits.[104] ITIF has published a report analyzing this with specific policy steps for how the U.S. government can transform that system into what we term "national power capitalism."[105] Canada could adopt very similar proposals.

Neoclassical Economics

Not surprisingly, the field of economics is seen by policymakers and most thought leaders as the intellectual source of guidance for policies that affect the economy. But despite what most economists in Canada will assert, economics is not a science, like physics, but rather is a doctrine. In the case of the Anglo-Saxon economies, that doctrine is what is termed "neoclassical economics."

In most Anglo-Saxon nations, including the United States, the neoclassical economic doctrine is dominant. For neoclassical economists, maximizing allocative efficiency is the principal goal. Allocative efficiency refers to managing scarce resources in such a way that maximizes the net benefit from their use, and that produces the quantity and mix of goods and services most

beneficial to society. A market economy characterized by allocative efficiency is one in which scarce goods and services are consumed on the basis of the prices consumers are willing to pay and produced on the basis of equality between marginal costs and price. Neoclassical economists believe that economic welfare is almost always maximized if actors in competitive markets set prices that are not distorted by policy. They spend much of their professional lives defending this utopian balance, believing that any violation of allocative efficiency leads to deadweight loss—a loss of economic efficiency as people buy too much of a product that is priced lower than it costs to produce (due to preferential tax incentives or subsidies, for example) or buy too little of a product priced higher than cost (from regulations or taxes, for example).

When it comes to productivity policy, the major failure of neoclassical economics is that its practitioners ignore it, or more accurately, believe that it is maximized by enabling price-mediated transactions to take place in a marketplace unfettered by government action. Indeed, page one of the most economics textbooks defines economics as "the study of how to allocate scarce resources among competing ends." As Harvard's Clay Christensen wrote, "Most theories of growth are developed at the macroeconomic level—at 30,000 feet. That perspective is good for spotting correlations between innovation and growth. To understand what causes growth, however, you have to crawl inside companies—and inside the minds of the people who invest in and manage them."[106] In other words, economists do not study how societies create new forms of production, products, and business models to expand productivity; rather, they study markets to see how commodities are exchanged. But progress does not come from allocating widgets more efficiently, it comes from making widgets more efficiently and, even more so, by inventing the next new widget.

As long as neoclassical economics is guiding the Canadian economic ship of state, effective policy responses will find difficulty gaining traction.

Holders of both doctrines also believe that productivity growth is fixed and that policy can do little to change it. Neoclassical economist Alan Blinder has explained, "Nothing— repeat, nothing—that economists know about growth gives us a recipe for adding a percentage point or more to the nation's growth rate on a sustained basis. Much as we might wish otherwise, it just isn't so."[107] Not only do neoclassical economists contend that little can be done about productivity, but many also actually counsel policymakers to do nothing, because for them, government intervention only distorts the workings of the free market, producing allocation inefficiency. And they dismiss competitiveness as "voodoo economics," or as U.S. economist Paul Krugman called it, "a dangerous obsession."[108]

Thus, the first step for any policymaker seeking to maximize the economy's productivity is to reject the conventional neoclassical stance and embrace an alternative economic doctrine grounded in an understanding of the economy as an integrated, complex enterprise. Known by a variety of labels (including "innovation economics," "endogenous growth theory," "evolutionary economics," and "neo-Schumpeterian economics"), this approach is grounded in understanding that productivity, innovation, and competitiveness are less about markets and more about organizations and systems—in particular, about how technology is developed and deployed. Few conventional economists bother, as Nathan Rosenberg wrote, to "look inside the black box" of actual innovation in actual organizations or industries and cross-industry systems.[109]

As long as neoclassical economics is guiding the Canadian economic ship of state, effective policy responses will find difficulty gaining traction. Only a dynamic-capabilities intellectual regime will provide the needed intellectual cover for policymakers to adopt a dynamic-capabilities policy framework.

This is in contrast to economics in many other nations, especially the Asian growth countries, wherein a tradition of national developmentalism is dominant—and intellectually informed by economists such as Friederick List and Joseph Schumpter, and more recently Richard Nelson. And, of course, Canada has several leading Schumpeterian economists, including Richard Lipsey, Ken Carlaw, and Leonard Waverman. But they are the exception rather than the rule.

One last comment. Neoclassical economics dominates U.S. economics just as it does Canadian. But in the United States, the Department of Defense plays a somewhat offsetting role, pushing for national developmentalist policies, albeit aligned with national security. The Canadian Department of National Defence has nowhere near that clout. The ministry calling the shots is Finance, and it is a bastion of neoclassical economics thinking.

Canada and other Anglo-Saxon states are fundamentally processed-based. They are not developmental states focused on a goal. The Canadian state and system derive their legitimacy from procedural integrity: rule of law, democratic consent, constitutional constraints, and market mechanisms.

A Procedural State

Canada and other Anglo-Saxon states are fundamentally processed-based. They are not developmental states focused on a goal. They derive their legitimacy from procedural integrity: rule of law, democratic consent, constitutional constraints, market mechanisms.

In these nations, a policy or programmatic outcome is legitimate because a process was followed, regardless of what the outcome is. No fixed destination: Fidelity to method is the point. By definition, that limits the role of the state because the state can only intervene in a way that supports Parliament-created, and court-backed, processes. The Anglo systems value procedural fairness, consultation, consensus, and risk-avoidance over a more teleological or outcome orientation. For example, the regulatory system is based on individual rights wherein everyone and everything is treated the same and violating that means empowering certain groups against other groups with the risk of intervening state power. The problem, of course, is when you need to achieve something such as boosting the competitiveness of a particular set of advanced industries, the Anglo process state can only do so by happenstance.

In contrast, the teleological, developmental state derives legitimacy from movement toward a predetermined end—in the case of the Asian tigers, for example, toward rapid advanced industrialization. Here, the means is subordinate to the ends and the government's role is less to stay true to processes and more to achieve goals. Legitimacy derives from achieving an objective. Process matters instrumentally—insofar as it helps you get there—not intrinsically. This is very different from a national development state that actively steers economic development, picks strategic sectors, and uses state capacity to accelerate industrialization and competitive advantage. In national developmentalism, regulations are not procedural straightjackets. Achieving key national goals can take precedence over achieving process integrity.

Developmentalist states address these issues differently, selecting key industries and projects as strategically important and imposing regulatory flexibility.

Again, America has had at least some counterbalance from this through the development of its national security state. National security is not about process. It is about goals and doing what it takes to accomplish those goals. As the Soviet threat became clear to many Washington policymakers after Churchill's famous 1946 "Iron Curtain" speech in Independence, Missouri, a bipartisan consensus emerged to create a teleological national security state. To be sure, there was always ambiguity and reluctance, from Eisenhower's warning about the military-industry complex to JFK's wanting to rein in the CIA to the Senate hearings on the CIA in the 1970s. But the reality of the Soviet threat meant that the national security state was maintained. Canada's weak and underfunded Department of National Defence means that Canada lacks this counterweight.

CONCLUSION

It is not too late for Canada to turn its economy around. But it is getting close to a point of no return. If Canada keeps losing advanced manufacturing, especially to an aggressive Marxist-Leninist People's Republic of China, it will be gone for good. The barriers to re-entry are just too high.[110] It will become like Australia: once a manufacturing economy, now a resource supplier to China.

Continued lagging productivity, coupled with a surge in expected retirement benefits in the next decade, will put further pressure on the government, limiting even more its fiscal headroom to make needed tax and non-tax expenditures in innovation and competitiveness.[111] And as noted, as the economy becomes more and more a natural-resource-based one, the forces pushing for diversification and innovation become even more sidelined.

It is not too late for Canada to turn its economy around. But it is getting close to a point of no return.

That does not mean Canada cannot turn this around. But it will need to start by taking at least two main steps. First, wealthy Canadian elites will have to do more to push for and support change. I was struck by a recent conversation I had with a successful Canadian business founder about the challenges in Canada, and he said essentially, "Well, I supported a project about 15 years ago pushing for change and it didn't succeed, so there's no point of doing anything." One cannot guarantee that there will be change if we try, but one can pretty much guarantee stagnation and decline if we don't.

Second, a much larger share of Canadian elites, in business, government, the media, academia, and civil society, will need to come together to jointly "break glass" and call not for "free glass" or "let the market clean up the glass," but rather a national strategy to turn this around. But Canada may be like the proverbial frog in the boiling water, with the occasional report, article, or speech saying that the water appears to be getting warmer, but then people going back to their pleasant apathy: At least we aren't like the Yanks.

Hopefully this report is a contribution to that conservation.

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About the Centre for Canadian Innovation and Competitiveness

The Centre for Canadian Innovation and Competitiveness is an Ottawa-based affiliate of ITIF, the world's leading think tank for science and technology policy. As a separately incorporated and registered charity under the Canada Not-for-profit Corporations Act and Income Tax Act, the Centre's mission is to help policymakers and the Canadian public better understand the nature of the innovation economy and the types of public policies that are necessary to drive Canadian innovation, productivity, and global competitiveness. For more information, visit innovationpolicy.ca.

ERRATA

This report was updated on May 27, 2026, to correct several typographical errors, including an incomplete sentence and misstated attribution in the subsection titled "Infrastructure as the Answer."

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