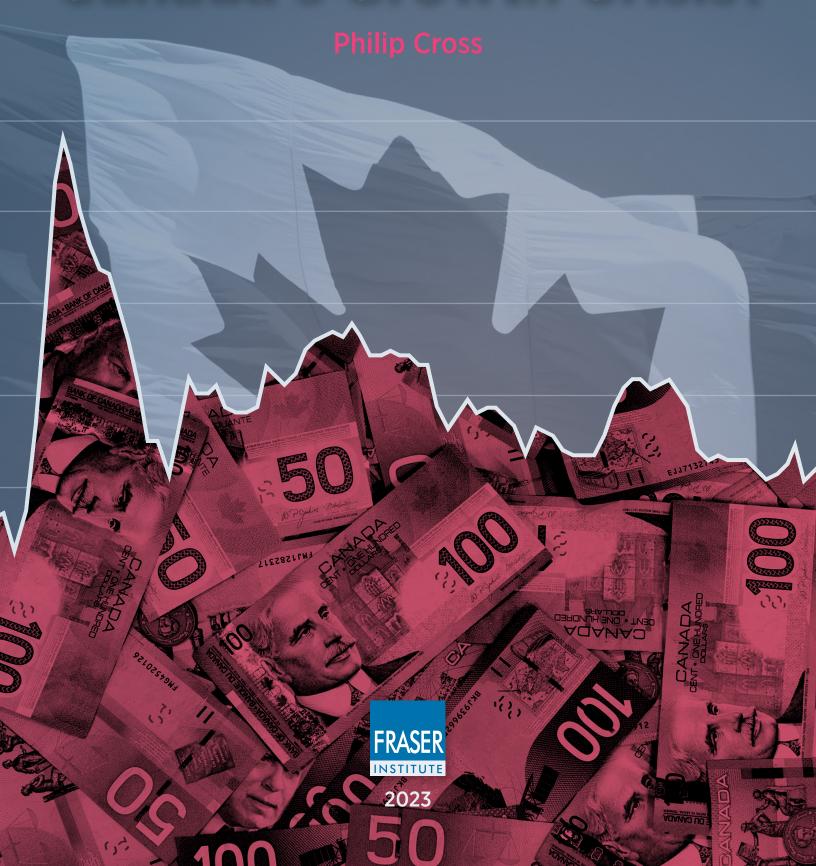
What is Behind Canada's Growth Crisis?



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by Philip Cross

Contents

Executive Summary i
Introduction 1
Weak Business Investment and Exports Are Hampering Canada's Growth 4
Why Growth Is Important 7
The Importance of Sustaining Growth over Long Periods 11
Prioritizing Short-Term Stabilization Policies Over Potential Growth 15
The Role of Institutions 19
Innovation Has Become the Focus for Boosting Long-Term Growth 23
Growth-versus-Level Effects Show the Limits of Government Growth Policies 27
The Importance of a Society's Culture to Growth 30
An Innovative Culture Rebounds Quickly from Negative Shocks 35
Conclusion 37
References 38
About the Author 46
Publishing information 47
Supporting the Fraser Institute 48
About the Fraser Institute 49
Editorial Advisory Board 50

Executive Summary

Weak growth in Canada has persisted for a decade, with per capita real gross domestic product posting its smallest gain in nearly a century. Canada's economy has grown significantly slower than that of the United States, suggesting that the origins of Canada's growth crisis are domestic. Moreover, slower growth in Canada has originated mostly in declining business investment and exports, the sectors of the economy that embed innovative technologies and reflect the competitiveness of Canadian businesses.

This paper looks at the broad reasons for the loss of dynamism in the Canadian economy, focusing on the erosion of the values that cultivate innovation and entrepreneurship. It begins with a reminder of the benefits of economic growth and how novel sustained growth is to the modern world. Growth is neither automatic nor well understood by economists, despite widespread claims that sustaining growth is easy to achieve by adopting a few simplistic policies. Canada cannot rectify its poor record on growth by continuing its exclusive focus on such formulaic policy making. Canada has adopted many of the policies economists recommend to boost growth, including high levels of immigration and education, lavish government support for research and development, and free trade deals with all the G7 nations, but slow growth has become more entrenched.

As growth has decelerated, governments in Canada have fixated on the distribution, rather than the creation, of income and on stabilizing the short-term course of the economy, rather than raising its long-term potential. Such a focus has reinforced the downward pressure on growth. In particular, policies such as more government spending and relentless monetary stimulus provide at best a short-time fillip to growth, but depress long-term potential, especially through their negative impact on business investment.

Recent research, however, stresses the importance of a nation's culture to economic growth. Without a culture that supports entrepreneurship and innovation, even the best policies and institutions will produce disappointing results. Canadians need to dispense with the mindset that, in the words of a leading commentator, "in Canada, if you run a successful business, you are made to feel you have done something wrong."

Raising growth requires a resurrection of Canadians' faith in the ability of Canada's businesses to compete in the global marketplace without constant government guidance and intervention. In the absence of such a revival, Canada will be condemned to the stagnation seen in recent decades in Japan and much of

western Europe. Canadians need to be reminded by their business and political leaders of the necessity of restoring higher economic growth if we want to pursue a wide range of economic and social goals and restore Canada's standing on the global stage.

There remain reasons to be optimistic that Canada can regain its ability to grow faster. Culture changes only slowly, and Canada showed for much of the past century that it possessed the values which incubate business dynamism. Canada has avoided the populist trap of calls for more protectionism, at least in its trade dealings with other countries, if not trade between provinces. Canada's borders remain open to large inflows of immigrants, who necessarily have a heightened taste for risk. More broadly, innovative cultures have shown they can rebound from severe setbacks, such as Europe's recovery from the devastation of two world wars and the 1930s depression because its human capital and culture remained intact even as much of its physical capital was destroyed. Canada needs its leaders to change the way they talk about and interact with business, especially our dwindling number of successful firms.

Introduction

Canada is in the grips of its slowest decade of economic growth since the 1930s. This is evident in the 10-year annual average increase in real gross domestic product (GDP), especially after adjusting for Canada's growing population. This extended period of slow growth has widened the gap in per capita growth between the United States and Canada, showing that the origin of our slumping growth is in domestic, rather than external, factors.

The trend in annual real GDP growth over 10-year intervals has been downward in recent years (figure 1). Real GDP growth reached a peak pace of over 6 percent a year on average in the late 1940s, and remained robust at 5 percent through the 1950s and 1960s. Growth then ratcheted down steadily to 4 percent in the 1970s, 3 percent in the 1980s, and 2 percent in the 1990s. Between 2000 and 2007, however, it accelerated above 3 percent, reaching a high of 3.5 percent during the commodity supercycle. In the aftermath of the 2009–14 Global Financial Crisis, growth fell to 2 percent, and in the years since it has fallen to just below 2 percent – the economy's worst performance since the 1930s.

Recent GDP growth in Canada has been boosted by an expanding population, although this is not reflected in higher GDP per capita. *The Economist* magazine attributes some of the remarkable strength of the US economy to its "demographic

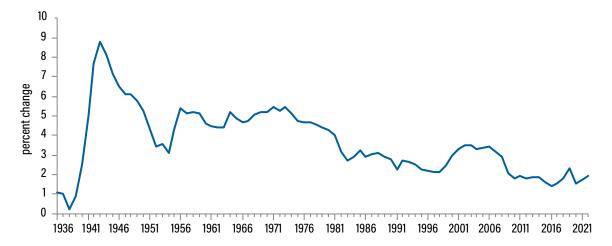


Figure 1: 10-Year Average Real GDP Growth, Canada, 1936-2021

Note: As Statistics Canada data begin in 1926, the figure begins in 1936, which shows average annual growth for the decade ending that year.

Sources: Statistics Canada, tables 36-10-0202-01 and 36-10-0369-01.

advantage" of population growth and high immigration (*The Economist*, 2023b), but Canada has been unable to translate these same advantages into higher economic growth. A growing population automatically raises demand for basics such as food, clothing, and shelter, while expanding the supply of labour. The number of people living in Canada in 2022 grew by a record of slightly over 1 million—a 2.7 percent increase that was the greatest of any country outside of a few African nations and Afghanistan, despite Canada's aging population (Statistics Canada, 2023b), although the increase was inflated by the end of pandemic restrictions on immigration. Canada's 13.4 percent population growth over the past decade is the highest in the G7—Japan, Italy, and Germany saw their aging populations decline outright. Despite the lift from an expanding population, Canada's real GDP growth has remained weak, with decadal GDP per capita growth slowing to 0.8 percent (figure 2).

Since 2015, the year when growth between the two countries began to diverge significantly, Canada's real GDP per capita growth has steadily fallen behind that of the United States 2015 (figure 3). Starting in the fourth quarter of 2016, US real GDP per capita had risen by 11.7 percent by the end of 2022 versus only a 2.8 percent gain in Canada. This 8.9 percentage point gap in growth between the two countries originates in three periods of time. An initial divergence of 3.5 percentage points in favour of the United States opened up between 2016 and the end of 2019, just before the onset of the COVID-19 pandemic. Then, during the worst of the pandemic-related shutdowns in the first half of 2020, although both countries saw a decline in per capita real GDP, in the United States it fell by 9.7 percent while in Canada the drop was 13.2 percent, in effect adding another 3.5 percentage points to the gap. Since the recession low in mid-2020, real GDP per capita has recovered by 15.3 percent in the United States and 14.1 percent in Canada,

percent change -1 -2

Figure 2: 10-Year Average Real GDP Growth per capita, Canada, 1936-2021

Sources: Statistics Canada, tables 36-10-0202-01, 36-10-0369-01, 17-10-0005-01, and "Canadian Economic Observer: Historical Statistical Supplement," cat. no. 11-210-X.

15 10 US 5 percent change 0 Canada -5 -10 -15 Q4 Q4 Q4 Q4 Q4 Q4 Q4 Q4 2016 2017 2018 2019 2020 2021 2022

Figure 3: Change in Real GDP per capita, Canada and the United States 2015Q4 – 2022Q4

Sources: Statistics Canada, tables 36-10-0104-01 and 17-10-0009-01; Federal Reserve Bank of St. Louis.

increasing the gap between the two countries by a further 1.2 percentage points. The ability of the US economy to sustain growth over the past decade shows that Canada's stagnation was not the inevitable result of an aging population or the exhaustion of technological innovations, but instead reflects factors under Canada's control.

There is a growing recognition that Canada needs to address its faltering rate of economic growth. Business leaders have long drawn attention to Canada's slow growth, with the Business Council of Canada early in 2019 launching a Task Force on Canada's Economic Future, focusing on six policy areas where action is needed to enhance Canada's economic prospects (Business Council of Canada, 2019). Former finance minister Bill Morneau has written that one reason he left his business to run for office in 2015 was that "Canada's economic growth had been stalled for two decades or more and it needed to be resuscitated" (Morneau, 2023: 286). Morneau appointed an Advisory Council on Economic Growth of 14 leading Canadians to recommend how to improve growth (108), but he fails to acknowledge that the slowdown of growth actually worsened during his tenure as finance minister. In response to persistent slow growth, former cabinet ministers Lisa Raitt (a Conservative) and Anne McLellan (a Liberal) formed the bipartisan Coalition for a Better Future, whose objective was to build a consensus on how to strengthen economic growth, raise productivity, boost competitiveness, and manage climate policy. Despite all these efforts to draw attention to the need for more growth, public commentators such as Andrew Coyne continue to refer to Canada's ongoing "economic growth crisis" (Coyne, 2023).

Weak Business Investment and Exports Are Hampering Canada's Growth

This paper discusses the many reasons for Canada's lagging growth in recent years by reviewing what economists think are the principal drivers of growth over the long term, and providing some broad guidelines as to what ails our economy. The intent is not, however, to prescribe a list of specific policies that will cure these ailments. As Joseph Schumpeter, who founded the study of innovation and creative destruction, told a US business group, "I am not running a drug store. I have no pills to hand out; no clear-cut solutions for any practical problems that may arise" (McCraw, 2007: 169). Rather, this paper builds on my previous study on Canada's faltering record of innovation (Cross, 2021), and draws the attention of economists and policy makers to the ways Canada's business community can contribute to solutions to our structural problems. I argue that the recurring attempts to prescribe specific economic policies to boost growth have not succeeded because these policies will not work until Canada recaptures the values that enabled it to be an innovation leader in the past. Canadians have to lose the reflex of looking only to public sector institutions to restore growth, as shown in a recent Nanos poll that focused exclusively on how the public sector influences Canadians' standard of living, without any consideration of the business sector.

The most obvious sectoral manifestations of Canada's slow growth are chronically weak business investment and exports. Between the fourth quarter of 2014 and fourth quarter of 2022, business investment in Canada fell 17.6 percent in volume (figure 4) compared with a 23.5 percent gain in the United States. Meanwhile, after peaking in the third quarter of 2015, Canada's volume of merchandise exports fell 0.4 percent compared with a 14.0 percent rise in the United States, despite the stimulus from a 25 percent devaluation of the Canadian dollar since 2014.

Business investment in plant and equipment and exports of goods together account for 37 percent of Canada's economy. When over one-third of an economy contracts over an eight-year period, overall growth inevitably will be significantly reduced. This is especially true for investment and exports, which contain Canada's most productive and innovative technologies, because they face the most

110 105 100 95 90 2014 Q4 = 100 85 80 75 70 **Exports** 65 Investment 60 Q4 2022 Q4 2015 Q4 2016 Q4 2017 Q4 2018 Q4 2019 Q4 2020 Q4 2021 Q4 2014

Figure 4: Volume of Merchandise Exports and Business Investment Canada 2014Q4 - 2022Q4

Source: Statistics Canada, table 36-10-0104-01

pressure to compete and innovate. As a Statistics Canada (2022: 13) publication remarks, "exposure to foreign markets and improvements in productivity go hand in hand." The prolonged slump of business investment and exports also reflects the limitations of monetary policy to influence industry structure. The Bank of Canada has said repeatedly that it wants to engineer a transition from debt-fuelled increases in household and government spending to investment and exports, but it has failed, for reasons it has struggled to fathom (see Cross, 2019).

Slumping business investment in Canada is a particular concern for overall economic growth. There is a growing recognition that Canada has wasted a decade of low interest rates on investing too much in government debt and housing² and not enough in business investment. Low levels of investment since

¹ Exports have a positive effect on growth when investment is not included as an explanatory variable, but this effect disappears when investment is included (Helpman, 2004: 70).

² The recent boom in house prices is not a sustainable source of growth. Philip Coggan writes that "a belief that a nation can prosper from higher house prices makes one think of the mythical island where every household earned its living by taking in its neighbour's washing" (Coggan, 2011: 137). He elaborates that "a lot of people can make paper profits out of a bubble, provided they remain on paper. Madoff's clients were all happy as long as they didn't ask for their money back. Once a sufficient number of bubble investors try and spend their gains, the bubble pops. The money hasn't 'gone' anywhere; it was never really there" (135). The bubble has lasting effects, however, because it distorts investment decisions, diverting funds into the search for paper profits rather than into areas with lasting value in the marketplace.

2014 resulted in an outright decline in net investment available per worker, from \$16,000 in 2014 to \$11,900 in 2021 (Robson and Wu, 2021). Persistently weak investment since 2015 has resulted in a decline in net capital stock per worker, both economy-wide and in manufacturing, even as employment has risen. The long-run implications of falling capital stock levels per employee are worrisome, since, "[i]n the long run, GDP and the capital stock tend to grow at the same rate" (Philippon, 2019: 65).

Beyond its direct impact on slower overall growth and indirect drag on productivity, the persistent slump in both business investment and exports is symptomatic of structural shortcomings in Canada's economy. These include low rates of business formation, regulatory uncertainty, barriers to investment (especially in the resources sector), restrictions on internal trade, faltering confidence of foreign investors in Canada, and low levels of productivity and innovation. One manifestation of chronic weak business investment and low productivity is the OECD's forecast that Canada's per capita GDP growth between 2020 and 2060 will be the lowest among its 29 member nations (OECD, 2021). This underscores the risk that Canada's anaemic economic growth will continue for decades without fundamental changes in our attitude to growth. A return to sustained faster economic growth in Canada will not come from selecting from a menu of policies proposed by government advisors who offer one-time boosts to income, but from harnessing the potential of Canada's innovators and entrepreneurs.

Why Growth Is Important

Anaemic growth in Canada has become so routine since 2014 that it is worth summarizing the benefits of higher rates of growth. The importance of economic growth cannot be dismissed by agreeing with the American writer Edward Abbey that "growth for the sake of growth is the ideology of the cancer cell" (quoted in Hochberg, 2021: 242) or that economists are "obsessed with uneconomic growth at all costs" (Ramphele and Dixson-Declève, 2022: vii). Because of its obvious benefits, economists should not feel the need "not only [to] explain economic growth but vindicate it" (Tupy and Pooley, 2022: xvii). Even the leader of Britain's Labour Party, Keir Starmer, acknowledges that "[e]conomic growth is the absolute foundational stone for everything" (quoted in *The Economist*, 2023c).

Economists advocate growth not for its own sake but for the benefits from controlling and harnessing the world around us. Economic growth and more human control of our environment³ have accompanied vast improvements in measures of well-being, such as life expectancy, health, housing, leisure time, food and energy security, political freedom, and democracy. Growth helps society meet today's challenges associated with higher debt, a rising population, and an aging society, all of which are particularly relevant to Canada (Stephan, 2012: 205). Nouriel Roubini points out that higher incomes will be necessary to repay the huge amounts of debt issued during the COVID-19 pandemic without the stress from currency devaluation or cuts to the social safety net (Roubini, 2022: 13).

The improvement in living standards over the past two centuries has been so vast it is hard to quantify. All pre-industrial societies were about equally poor because "traditional agricultural societies are very like one another, all over the

As W. Arthur Lewis elaborated, "[n] ature is not particularly kind to man: left to herself she will overwhelm with weeds, with floods, with epidemics and with other disasters which man wards off by taking thought and action. It is by accepting the varied challenges presented by his environment that man is able, in innumerable ways, to wrest from nature more product for less effort" (Lewis, 1955: 23). He concluded that, "[w]hat distinguishes men from pigs is that men have greater control over their environment, not that they are more happy. And on this test economic growth is greatly to be desired" (Lewis, 1955: 421). Joel Mokyr agrees that growth requires an assertion of human control over nature: "If metaphysical beliefs are such that manipulating and controlling nature invoke a sense of fear of guilt, technological creativity will inevitably be limited in scope and extent" (Mokyr, 2016: 17).

because "traditional agricultural societies are very like one another, all over the world, and the standard of living is not hard to estimate reliably" (Lucas, 2004: 3). Steven Landsburg has summarized the long arc of human economic development this way: "Modern humans first emerged about 100,000 years ago. For the next 99,800 years or so, nothing happened...Then—just a couple of hundred years ago-people started getting richer. And richer and richer still" (quoted in Gordon, 2016: 3). Statistics on real GDP show a 13-fold improvement in living standards over the past two centuries. Much of this rise, however, reflects not just an increasing volume of existing products, but also an immense array of new goods and services. The invention of new products greatly complicates intertemporal comparisons because of "tectonic shifts" where "the changes in production and consumption are so vast that the price indexes do not attempt to capture the qualitative changes" (Nordhaus, 1997: 58). Adjusting for these changes and quality improvements in areas such as housing, health care, and transportation leads economists such as Nordhaus to estimate that the increase in our standard of living is an order of magnitude between 40 and 190 times its starting point before the Industrial Revolution, not the 13-fold increase suggested by GDP statistics (McCloskey, 2010: 48).

Reflecting on what she calls the world's Great Enrichment over the past two centuries, Deidre McCloskey has written that explaining the vast improvement in living standards "is the central task of economics and economic history" (2016: xiv). This was not always the focus of economists, since sustained growth is very much a recent phenomenon. For classical economists such as Malthus and Ricardo, the central problem for economic theory was "to account for the tendency of per capita incomes in any society to return to a roughly constant, stable level in the face of improvements in technology" (Lucas, 2002: 110). No attention was paid to understanding the forces behind innovation, because sustained growth was not "mentioned by the classical economists, even as a theoretical possibility" (109).

The benefits of sustained economic growth are so enormous that, in the words of Robert Lucas Jr, "[t]he consequences for human welfare involved in questions like these are simply staggering. Once one starts to think about them, it is hard to think of anything else" (quoted in Warsh, 2006: 247). The question of what drives economic growth has preoccupied the best minds in economics. It has become the norm among economists who win a Nobel prize then to write a book about the sources of long-term economic growth⁴ – the list includes Deaton (2013), Fogel (2004), Friedman (1980), Lewis (1955), Lucas (2002), Nordhaus (1997), North (2005), Phelps (2013), and Spence (2012). It is worth noting that most of these reflections on economic growth focus on innovating in a

⁴ Not all recipients were enthusiastic about the Nobel prize: James Meade said the three great disasters of the twentieth century were the combustion engine, the population explosion, and the Nobel Prize in Economics. (Deaton, 2013: 218).

competitive marketplace. All ascribe little or no importance to short-term monetary and fiscal stabilization or to redistribution policies, which have become the almost exclusive preoccupation of Canadian policy makers.

A high standard of living directly affects a nation's status on the global stage. A recent review of Canadian foreign policy notes that our stature in the world was inflated in the 1950s by "Canada's economic strength and a steadily rising standard of living" while much of the world was recovering from World War II (Bothwell and Hillmer, 2023: 33). Russia's invasion of Ukraine is a reminder that money is needed to finance a nation's defence and survival in war, which is why "Napoleon said that there were three things needed to fight a war. The first is money. The second is money. And the third is money" (Drucker, 1990: 53). The importance of finance to waging war is reflected in the history of central banking. The Bank of England was founded in 1694 explicitly to assist the government finance its war with France, while the first two attempts at creating a central bank in the United States were made to help deal with debt resulting from the Revolutionary War and the War of 1812⁵ (Smialek, 2023: 46–47).

Social and political trends in the Western world after the 2008 Great Financial Crisis underscore the negative impact of flagging economic growth. In the words of Paul Collier, "[g]rowth is not a cure-all, but lack of growth is a kill-all" (quoted in Tupy and Pooley, 2022: 192). Slow growth since 2008 has spawned populist movements in several countries, leading to Britain's vote to leave the European Union and the election of Donald Trump as president in the United States. Economists even created a new statistic for "deaths of despair" as more people overdosed or committed suicide in response to declining living standards (Case and Deaton, 2020). As former Bank of England governor Mervyn King concluded, "[p]ut simply, our societies are not geared for a world of very low growth" (King, 2016: 6).

So far, Canada has avoided the populist trap of blaming slow growth on unfair international trade practices. Such a populist tactic serves the purpose "of exculpating the past and present cultures from responsibility for lack of development, and permitting the politically mythological possibility of achieving development by political effort not requiring fundamental social change" (Harry Johnson, quoted in Van Overtveldt, 2007: 188). Continued slow growth in Canada, however, risks awakening a destructive move to protectionism that would only further depress potential growth.

History shows that previous periods of economic stagnation or decline have unleashed social and political forces far worse than protectionism. The Austrian economist Friedrich Hayek, who grew up with the devastating impact of the Great Depression on European politics, observed: "The one thing modern democracy will not bear without cracking is the necessity of a substantial lowering of

⁵ Furthermore, a national banking system was legislated in 1863 during the Civil War (Smialek, 2023: 48).

the standards of living in peace time or even prolonged stationariness of its economic conditions" (quoted in Malmgren, 2016: 287). The report updating 1971's *The Limits to Growth* acknowledges the costs of lower economic growth:

The biggest threat from declining growth will be to our social fabric. Faith in the inevitability of growth—more for everyone—has been the single largest contributor to the social cohesion necessary for effective governance. In a system where every participant expects eventually to have more, it is possible to reach a consensus even for actions that some expect will giver them less in the short term. But when everyone understands that growth is no longer possible, where life becomes obviously a zero-sum game—if one gets more, another must get less—then consensus will disappear. No governance system will be able to make the necessary changes because those who expect to get less will block action. (Meadows, 2022: 70)

On a more mundane level, GDP growth fuels the job creation governments need to stay in power. Former Canadian prime minister Stephen Harper, an economist by training, noted that sustained GDP growth is required to create more jobs, since "[c]apitalist innovation inexorably reduces the amount of labour required for a given amount of production. Thus, if growth fails to occur, the number of jobs will steadily decline in a market economy" (Harper, 2018: 100). Innovation sustains overall job growth by raising incomes and GDP, and thereby lifting demand for labour. It is worth adding that governments do not create most jobs, since "[g]overnment can 'create jobs' only by taxing some deal to subsidize another, with no net gain unless the government is wiser about trading opportunities than people in trade" (McCloskey, 2016: 62). The track record suggests superior judgment by government is very unlikely.

The Importance of Sustaining Growth over Long Periods

Economic growth needs to be sustained over decades, not just a few years. This implies a nation's growth is best examined over decades, not the quarterly or annual fluctuations that dominate economic commentary and political debate. The idea of a sustained increase in productivity is hard to grasp, since it is so new to human experience: it was unfathomable to economists as recently as the early nineteenth century, who focused on explaining the different levels of national wealth, rather than growth, because they assumed the level would not change much (Lucas, 2002: 122). Until recently, there was not even a word for productivity growth, a concept not widely used in the United States until World War II; the Concise Oxford Dictionary did not have an entry for productivity as recently as 1950 (Drucker, 1993: 94).

Growth over long periods means that relatively small changes in growth rates compound to produce radically different results. Einstein was right to call compounding the "eighth wonder of the world." Growth of 3 percent a year lifts income by 109 percent over 25 years and 226 percent in 40 years; but 5 percent growth over the same periods boosts income by 239 percent and 604 percent, respectively (Taylor, 2012: 125). Put another way, before the Industrial Revolution, it took 6,000 years for global per capita GDP to double in size; after 1750, it doubled every 50 years (Tupy and Pooley, 2022: 194).

Several concrete examples demonstrate the importance of even seemingly small changes in growth over long periods of time, which is why former Bank of Canada governor Stephen Poloz emphasizes "the critical importance of every decimal of economic growth" (Poloz, 2022: 243). Between 1789 and 2000, real GDP in the United States rose an average of 3.73 percent a year; if instead growth had been 2.3 percent, US per capita income would have been less than that of Papua New Guinea (Smick, 2017: 6). Similarly, if US growth had been one percentage point less a year after 1870, its GDP today would be lower than Mexico's (Epstein, 2022: 359). Even over shorter periods, different growth rates result in much different outcomes. If US growth between 1952 and 2000 had been 2 percent instead of its actual 3.5 percent, per capita income would have been US\$23,000 instead of US\$50,000 (Smick, 2017: 7). All these examples support Paul Romer's observation that, "[f] or a nation the choices that determine whether income doubles with

every generation, or instead with every other generation, dwarf all other policy concerns" (quoted in Stephan, 2012: 205).

Sustained growth over long periods allows societies to accept more easily the cyclical downturns that are an inevitable part of capitalism. Viewed through a long enough lens, even GDP's prolonged drop during the Great Depression in North America becomes a blip in a long upward trend. The economist C.I. Jones, reviewing the upward climb of GDP over the past two centuries, observes how, in retrospect, the 1930s "stands out for how anomalous it is. Many of the other recessions barely make an impression on the eye: over long periods of time, economic growth swamps economic fluctuations" (quoted in Putnam, 2021: 22). This underscores the point that policy makers should prioritize long-term potential growth over short-term demand management.

Another way to appreciate the importance of sustaining economic growth is to observe how, in its absence after 2008, many Western nations focused on the distribution, not the creation, of income. This marked a return to the destructive mind set of medieval times when, in a society bereft of overall economic growth, one person's (or class's) standard of living could improve only at the expense of another's.

Most government activities today are aimed at redistributing income (Ragan and Watson, 2004: 38), which harms an economy's long-term potential growth. Eric Beinhocker elaborates how prioritizing income redistribution dampens growth, because when you begin

seeing the world as a zero-sum game, then your objective will be to get your slice of the pie. You will view someone else's gain as your loss, and your proclivity to cooperate will be low. Rather than searching for new, more complex, and wealth-creating cooperative activities, people will invest their energies in finding ways to capture a greater share of existing wealth. It is not hard to imagine that thievery, dishonesty, and corruption will be higher in such a zero-sum society. (Beinhocker, 2006: 432)

Too often, economists treat the distribution of income as separate from the creation of income. For example, Statistics Canada has a model of the distributive impact of government taxes and transfers, but it is not attached to a model of economic growth (Statistics Canada, 2023a). This separation ignores that attempts to redistribute incomes via taxes and transfers affect growth, but the impact of this change in growth on income distribution is not captured in any model. A model of distribution cannot be attached to a model of growth because the incomplete

⁶ Bad policy can aggravate a cyclical downturn. The poor response of monetary policy to the US banking crisis in the 1930s led former Fed chair Ben Bernanke to admit to Milton Friedman on his ninetieth birthday: "You were right, we did it. We are very sorry. But thanks to you, we won't do it again" (Bernanke, 2002).

understanding economists have of the forces that generate economic growth⁷ means that growth cannot be incorporated into a statistical model, as amplified later in this paper. Attempts by early growth theorists to reduce growth to simple models encouraged the erroneous and mechanical approach that continues to distort thinking about the ability of public policies to boost economic growth.

The emphasis on income distribution is the inevitable outcome of an overreliance on Keynesian policies to stabilize the economy over the short term. This is because "[t]he Keynesian model is primarily a redistribution model. It relies on self-interest, individualism, free trade, and free markets for economic growth. The state merely provides the safety net to cushion periods of economic contraction. Its failure comes in its use, both by Keynes but more specifically his followers, as a model of actually spurring income growth through income redistribution" (Wanniski, 1978: 166). Former Malaysian prime minister Mahathir Mohamad summarized the problem of governments' fixating too much on redistribution, acknowledging that Singapore surpassed Malaysia economically by focusing on growth, rather than on the 'fair distribution of wealth between races as we have in Malaysia" (quoted in Sharma, 2012: 148). Martin Wolf of the Financial Times has pointed out that inequality and growth are linked, as growth is "almost inevitably, uneven. Some countries, regions and people do better than others. The result is growing inequality. To regret that is to regret the growth itself. It is to hold, in effect, that it is better for everyone...to remain equally poor" (quoted in Skidelsky, 2020: 48).

The reality is that redistribution policies are an inefficient way of helping the poor because they subtract from the very economic growth that benefits them the most. Robert Lucas concludes that, because redistribution hampers economic growth, "[o]f the tendencies that are harmful to sound economics, the most seductive, and in my opinion the most poisonous, is the focus on questions of distribution... The potential for improving the lives of poor people by finding different ways of distributing current production is *nothing* compared to the apparently limitless potential of increasing production" (Lucas, 2004: 9, emphasis in original).

Foreign aid is a prime example of the folly of relying on transfers and redistribution to fuel growth. Globally, foreign aid by governments since 1960 has totalled about \$5 trillion, at 2009 prices (Deaton, 2013: 275), with no measurable impact on poverty rates (Easterly, cited in Beinhocker, 2006: 435). The ineffectiveness of foreign aid reflects that these funds are easily diverted from their intended use, offset by less government provision of the same services, or become a heavy administrative burden on local recipients. Most fundamentally, aid undermines

It is not just economic growth that defies attempts at modelling; former Fed governor Daniel Tarullo has acknowledged that monetary policy is conducted "without a working theory of inflation" (Tarullo, 2017).

the need for governments to adopt the structural reforms to sustain growth. The rapid growth of the so-called Asian tigers (such as Taiwan and South Korea) demonstrated aid was not the key ingredient in sustaining growth. Angus Deaton summarizes the main problem with foreign aid: "When local conditions are hostile to development, aid is not useful" (Deaton, 2013: 273). The dilemma of foreign aid is that it is wasted if the proper conditions for development are not present, but it is not needed if they are.

Sustaining growth over long periods has important implications for the broad thrust of public policy. Policies aimed at stabilizing the economy in the short term or that offer only a one-time boost to income are not enough to sustain growth and might even subtract from its potential. Instead, what is required is the creation of a cultural environment in which entrepreneurship and innovation continue on an ongoing basis. Unfortunately, economic policy in Canada increasingly has focused on smoothing out short-term fluctuations, redistributing incomes, and improving specific institutions, while allowing the broader environment to deteriorate.

Prioritizing Short-Term Stabilization Policies Over Potential Growth

In recent years, governments in many developed countries have pursued economic policies similar to those of Canada, at the expense of improving long-term growth. Prioritizing short-term demand stabilization eventually harms an economy's potential because the "policies and behavior likely to foster long-term growth are often the opposite of those needed to counteract a serious recession" (Field, 2011: 237). This has been especially problematic for Canada since 2015, with chronic federal budget deficits and persistent low interest rates irrespective of whether or not the economy is improving.

Most economists agree there is a trade-off between short-term stimulus to an economy and its long-term growth potential. As Timothy Taylor summarizes, "Keynesian statements about the importance of aggregate demand are more relevant for short-run policy, and neoclassical statements about the importance of aggregate supply are more important in the long run. This is probably the majority view among modern economists" (Taylor, 2012: 199). Separating the long-term trend from the short-run cyclical component⁸ is justified only if "the factors determining long-run growth and those determining cyclical fluctuations are largely distinct" (Stock and Watson, 1999: 9). For example, the Bank of Canada explicitly differentiates between the determinants of inflation in the short run versus its long-term trend. For short-term analysis, the Bank studies the prices of goods and services and their major components (such as food, shelter, transportation, and so on), which mimics how Statistics Canada measures consumer prices. For the trend of inflation, however, the Bank examines the determinants of potential GDP, including labour supply, the amount of capital available to each worker, and total factor productivity (Bank of Canada, 2023).

Often, policies that boost potential growth have negative short-term effects and vice versa. Policies aimed at containing inflation (such as higher interest rates), improving labour market efficiency, or liberalizing trade might dampen growth in the short term before the benefits become apparent in the long term. Conversely, stimulating the economy with ultra-low interest rates or deficit spending might

⁸ Besides their trend and cycle, the two other components of a time series are seasonal fluctuations and an irregular residual (see Wyman, 2010).

⁹ The Bank of Canada ignores the role of even longer-term factors in inflation, such as the share of wages and profits in GDP.

lift the economy in the short term but reduce growth in the long term. This is because short-term demand stimulus mostly involves shifting spending from the future to the present or encouraging risky investments (Cross, 2016b: 7). Robert Shiller concluded: "We must therefore consider the short run and the long run separately, and the policy responses to the two are very different" (2008: 85).

Government spending might help stabilize the economy during shocks, such as the 2008 Great Financial Crisis or the 2020 pandemic, but it subtracts from long-term growth. One reason is that higher government outlays to stimulate aggregate demand in the short term depress the economy's long-term potential when government spending is maintained beyond a certain share of the economy. Robert Barro found that higher government spending hampers growth, since "per capita growth and the ratio of private investment to GDP are negatively correlated to the ratio of government consumption expenditure to GDP. An interpretation is that government consumption introduces distortions, such as high taxes, but does not provide an offsetting stimulus to investment and growth" (Barro, 1991: 437). Another study has similarly documented that economic growth is positively correlated to investment and negatively correlated to market distortions and government's share of GDP (McGrattan and Schmitz Jr, 1999: 689). The inability of governments to roll back cyclical spending after a slowdown has ended means most "temporary" spending becomes permanent.

It is understandable that politicians favour the expedient of stimulating short-term demand over cultivating long-term potential growth. Spending more on current consumption, rather than saving and investing in the future, often is popular because, "[t]o penalize saving 'soaks the rich.' And to promote consumption 'spreads the wealth" (Drucker, 1993: 68). Preventing or minimizing recessions at all costs through relentless short-term stimulus has become the accepted way for political leaders to demonstrate their economic competence to the public, even if the result is less frequent but more severe downturns and lower growth in the long term. Keynesian politicians (and increasingly the electorate) mistakenly believe "faster growth can be easily achieved by a combination of generally inflationary demand-management policies and politically appealing fiscal gimmickry" (Harry Johnson, quoted in Van Overtveldt, 2007: 184).

Conversely, encouraging potential growth lacks the immediate political payoff of higher consumption and short-term growth. Investment involves a focus on long-term economic benefits. As Narayana Kocherlakota explains, there is a cost involved in generating materially higher incomes: "As a society, we can only increase labor input by forgoing leisure and home production. And as a society, we can only increase investment by increasing labor input or by reducing consumption" (Kocherlakota, 2014: 149). The unspoken truth is, as Henry Hazlitt noted, "real income can only be increased by working harder or more efficiently, saving more, investing more, and producing more" (quoted in Bahnsen, 2021:

207). Such a message is not always popular with the electorate, which often does not support such policies until a crisis makes them unavoidable.

It is not clear that short-term stabilization policies materially improve economic performance over the whole business cycle, let alone its long-term potential over several cycles. The justification for short-term stabilization policies partly depends on the unproven premise that short-term volatility harms long-term growth. Instead, as John Fernald concludes, "[o]verall, there is little empirical evidence for *developed* countries that business cycles (financially related or otherwise) permanently harm the level or growth rate of total factor productivity... higher volatility, if anything, [is] associated with *faster* growth in GDP per capita" (Fernald, 2015: 12, emphasis in original). Similarly, another study has found that volatility and GDP growth are positively correlated in rich countries, but negatively in poor countries (Jones and Manuelli, 2005: 36).

Even a neutral overall impact—raising growth in the short run at the expense of less growth in the long run—would represent a failure for the stated goals of Keynesian stabilization policies. Former US treasury secretary Larry Summers noted: "The Keynesian aspiration was not to merely reduce the amplitude of cyclical fluctuations, but also to increase overall growth" (Summers, 2017: 559). John Kennedy was the first of many presidents who "openly acknowledged he would employ Keynesian countermeasures not merely at the bottom of the cycle but as a general policy tool to boost the nation's productivity" (Wapshott, 2011: 235). President Joe Biden has extended the argument by claiming that increased government spending raises productivity without affecting prices because it "breaks up the bottlenecks in our economy...and will enhance our productivity—raising wages without raising prices. That won't increase inflation" (quoted in Forbes et al., 2022: xi). In practice, it is likely that the cost to long-term potential growth from short-term stimulus has exceeded its benefits.

It was predictable that the combination of easy money policies and higher government spending adopted during the Great Financial Crisis and amplified during the 2020 pandemic would not lay the foundation for sustained economic growth. After all, "if the answer to our economic problems is to hold interest rates near zero, and for governments to spend far more than they take in taxes, mankind would surely have discovered this solution long ago. Life cannot be that easy" (Coggan, 2011: 237). Global poverty would have been eradicated around the world centuries ago.

The best way to boost potential growth is by raising productivity, rather than by smoothing out short-term fluctuations in demand. In his Presidential Address to the American Economics Association, Robert Lucas spelled out how "taking US performance over the past 50 years as a benchmark, the potential for welfare gains from better long-run, supply-side policies exceeds *by far* the potential from further improvements in short-run demand management" (quoted in Hanushek and Woessmann, 2015: 6, emphasis in original). Deirdre McCloskey agrees that,

"[i]n the long run we get better off only by betterment, not by spending...There is no free lunch springing from a trickle down (as the Republicans say), or a trickle up (as the Democrats say), from mere spending. We get better by getting smarter, only, not by miraculous trickle up or down" (McCloskey, 2016: 41)

Relentless short-term stimulus means adopting policies that are the very opposite of those that raise growth over the long term. This engages a vicious cycle where the emphasis on short-term growth hampers potential growth; in turn, slower growth in the long term fosters an emphasis on the distribution, rather than the creation, of income, further dampening potential growth. As noted earlier, Canadian governments have become especially prone to short-term demand management and income redistribution, rather than cultivating long-term potential growth. Putting off until tomorrow the structural reforms needed to boost growth ignores that, in the words of the Bank for International Settlements, inevitably "Tomorrow eventually becomes today" (BIS, 2016: 14).

William Baumol of Yale University summed up the lessons from his lifetime of studying economic growth by quoting *The Economist*: "[If] the past century of economic policymaking has taught us anything, it is that achieving strong long-term growth often has less to do with macroeconomic policies than with good microeconomics, including fostering competitive markets that reward innovation and restricting government to only a limited role" (Baumol, 2002: vii).

The Role of Institutions

Economists acknowledge well-functioning institutions are essential for growth. Several institutions have been foundational to the growth of the Western world, such as those providing a sound banking and financial system, secure contract and intellectual property rights, low barriers to trade, and incentives for market-based competition. Conversely, bad policies and corrupt government institutions can wreck a nation's growth prospects; as Thomas Sowell has observed, "it is hard to find a well-governed poor nation" (2008: 214).

The importance of institutions, however, should not be exaggerated: McCloskey titles one of her chapters on growth, "The Oomph of Institutions Is Small" (McCloskey, 2016). This is because institutions also can inhibit growth and innovation if they primarily defend the status quo. Existing institutions almost always resist innovation because "change hurts vested interests...Once an institution is in existence, it is very hard to change it or get rid of it" (Cipolla, 1970: 11). This is clearly Canada's experience with interprovincial trade barriers, supply management, and protection of a wide range of industries supposedly needed to defend our national identity (including culture, air transport, and telecommunications), all of which have successfully resisted decades of pressure for more competition.

Economists therefore are ambivalent about the importance of institutions. Most economists accept Douglas North's call to integrate institutions into their narrative about economic growth—especially how bad governance can sabotage growth early in the development process. Some economists, however, maintain reservations about an exclusive reliance on institutions to generate growth over the long term because "better markets, more cooperative behavior, and more efficient allocations simply do not in themselves account for modern economic growth. What is far harder to explain is the growth of technological creativity and innovation in Europe and especially the surge following the middle of the eighteenth century" (Mokyr, 2016: 5). More pointedly, Edmund Phelps finds that "differences in attitudes expressing the modern values of individualism, vitalism, and self-expression explain—better than intercountry differences in more familiar dimensions such as institutions do, at any rate—the intercountry differences in economic performance" (Phelps, 2020: 11).

The disconnect between repeated policy attempts to raise growth in Canada and a lack of results reflects other factors. Part of the problem is that the institutions that support growth—such as protection of property rights, contract enforcement, market-based competition, appropriate incentives, sound money,

and debt sustainability—"do not map into unique policy packages...There is no unique correspondence between the functions that good institutions perform and the form that such institutions take" (Rodrick, 2005: 973, emphasis in original). Negotiating free trade agreements does not in itself create growth—a country must have firms capable of taking advantage of the opportunities these deals provide. For example, Canada boasts that it alone has trade agreements with all the other G7 nations. Despite this favourable institutional framework for trade, Canada has not been able to boost its exports outside of the United States: even after entering into trade agreements with the EU and Japan (the latter as part of the Trans-Pacific Partnership), exports to the United States have remained stable at 75.0 percent of all exports since 2015, while exports to the EU and Japan fell from 9.6 percent to 7.7 percent. 10 Even much of the success of the free trade deal negotiated with the United States in 1989 came from sources its designers did not expect. The Macdonald Royal Commission had recommended free trade because it "envisaged Canada exporting manufactured goods. The time for reliance on primary products was over. Resources industries were in decline and suited only for policies of conservation. If Canada was to keep up with world development it would have to open itself to trade in the expectation that exporting firms would develop in, and markets would develop for, the manufacturing sector" (Neill, 1991: 219). Instead, oil and gas exports led the growth of Canadian exports, partly because of guaranteed access to US markets after years of restrictions imposed by governments on both sides of the border.

Governments in Canada emphasize specific institutions, rather than the broader institutional and cultural environment that supports entrepreneurship and innovation. Education is an example of an institution Canada relies on too much for growth. Canada has the highest formal education level in the OECD, yet its income growth has lagged. This fact is consistent with extensive economic research that finds education is not the basis for higher growth. Several researchers have pointed out that higher education often occurs after growth takes off. For example, South Korea's literacy rate in 1950 was below Ethiopia's, and North Korea was able to keep pace with economic growth in the South until 1970 (Acemoglu and Robinson, 2012: 406). As recently as 1960, Taiwan's literacy rate was below 45 percent (Studwell, 2013: xxiii). Conversely, China's growth rate took off in the 1970s even after its Great Leap Forward policy destroyed its education system in the early 1960s (Vargas Llosa, 2007: 165).

The mixed contribution of formal education reflects several factors. Much learning occurs in firms, rather than in schools. Part of the explanation for the United States' performance is what would be expected based on its level of education, but half of human capital growth occurs at work (T.W. Schulz, cited in Lucas, 2002: 12). Robert Gordon estimates that only 14 percent of the long-term increase

Statistics Canada, table 12-10-0011-01, "International merchandise trade for all countries by principal trading partners."

in US productivity was due to education and another 19 percent to capital investment; the remainder "cannot be explained by changes in things economists can measure. To make ourselves feel better, economists have given it its own name: *total factor productivity*" (quoted in Banerjee and Duflo, 2019: 148, emphasis in original).

Education raises growth most when it occurs in a culture with values that support capitalistic growth. Álvaro Vargas Llosa concludes that "education without the new bourgeois rhetoric is merely a desirable human ornament, not the way to human riches" (2007: 163), and that "[t]he truth remains that education by itself does not yield much" (164). The Soviet Union led the world in education, with the highest number of average years of schooling and the largest share of university graduates among emerging nations, yet its record on innovation was abysmal (Sharma, 2016: 17). Conversely, although US education levels and test results today are lower than those in many of its competitors, the United States continues to lead the world in innovation. One reason economists and policy makers continue to attach too much importance to education is that there is plentiful data on formal schooling. Another is that they ignore what is taught in schools: the United States has the world's best corporate management, according to Stanford's World Management Survey (*The Economist*, 2023b).

Institutions have a broader importance for the entrepreneur, since "the institutional environment in which he or she operates must be considered to explain differences in growth" (Ayittey, 2007: 137). There are close linkages between governments in Canada and entrenched interests among producers and labour unions, notably because of extensive government regulation and protection of large segments of the economy and pervasive rent seeking (see Cross, 2021). As a result, governments resist innovations that would disrupt the status quo with "the replacement of the old with the new, and the destruction of the economic privileges and political power of certain people" (Capra, 1984: 183). Canadian institutions need to accept that, in the words of Paul Romer, "wealth is just another word for change" (quoted in Coyle, 2001: 93).

Rather than encouraging capitalism and market competition, Canada's political leaders tout their pro-business credentials by citing the host of laws and regulations they craft to cater to special interests. These include the myriad tax deductions, exemptions, and carve-outs in recent federal budgets. Phelps points out that these special deals not only are inefficient, but also cultivate "a culture that undermines the spirit of aspiration and discovery that is required for economic dynamism" (Phelps, 2013: 320). Far from being a demonstration of probusiness bona fides, regulations and subsidies for specific firms or industries are the antithesis of support for capitalism and undermine public confidence in competition and the idea that the inequality capitalism requires is justified or earned.

Extensive government intervention in the private sector risks cultivating dependence and a culture of rent seeking instead of encouraging innovation in

the business community. Tyler Cowen observes that, "if it is standard procedure to approach government for a handout, that will induce too much rent-seeking, dependency, corruption, and eventually fiscal imbalances. Alternatively, excess or poorly conceived welfare expenditures may create urban cultures of dependency and crime, which endanger social order" (Cowen, 2018: 82). The fact that most corporations donate to more than one political party shows "the goal was currying favor rather than installing one ideology into power" (Smialek, 2023: 170).

Innovation Has Become the Focus for Boosting Long-Term Growth

Economists have developed two broad approaches to understanding what drives long-term economic growth. One emphasizes increasing the inputs of human and physical capital and efficiency; the other approach stresses the importance of innovation. Joseph Schumpeter described innovation as "the profitable application of new ideas rather than invention" (quoted in Nasar, 2011: 190), manifest in "the appearance of new goods, new markets, new methods of production and transportation, new forms of industrial organization" (Warsh, 2006: 123).

Most economic research emphasizes inputs and efficiency for several reasons. In the classical economics pioneered by Adam Smith, "economic growth depends on increasing returns generated by a process of continuing specialisation" allowed by access to larger markets and capital investment (Simpson, 2013: 106). To sustain growth, a society had only to mobilize labour and capital inputs and access markets large enough to allow labour specialization. In this narrow view, "the entrepreneur's function is to *combine* the factors of production into a producing organism" (Jean-Baptiste Say, quoted in McCraw, 2007: 457, emphasis in original).

The first attempts at growth accounting made economic growth appear to be a relatively simple and mechanical process. In 1939, Roy Harrod proposed a growth model, joined by Evsey Domar in 1946, that defined the economy's "warranted rate of growth" as the savings rate divided by the ratio of capital to output (Kishtainy, 2012: 322). Savings play a key role in early growth models because of their direct link to investment—although Russia has showed that high investment rates are subject to diminishing returns and do not guarantee sustained growth.

In a 1956 paper, Robert Solow made growth a function of labour and capital inputs, as well as a residual term that was said to represent technological change but is now regarded as a measure of everything impacting growth that economists did not understand or could not measure—"a measure of our ignorance," as Moses Abramovitz put it. Solow's approach partly reflected that inputs of labour and capital are relatively easy to measure, while technological innovation is difficult to incorporate into statistical models. This bias toward studying inputs rather

than innovation remains to this day.¹¹ The result is that "[s]tandard economic analysis is ill-suited to the study of innovation" (Bojilov, 2020: 31).

Besides its relative ease of measurement, the formulaic approach to growth also was encouraged by the high rates achieved by several nations that marshalled more inputs of labour and capital or raised efficiency through trade. These nations included the Soviet Union in the mid-twentieth century as it shifted resources from agriculture to industry (the agricultural sickle and the industrial hammer were enshrined in the flag of the USSR); Brazil in the 1970s, using Latin America's import-substitution approach; and Japan in the 1980s, which pioneered the reliance on export markets and copying of technology that other Asian nations would pursue. Many economists and policy makers were quick to conclude that the economic model of the Soviet Union in the 1950s or of Japan in the 1990s was sustainable and admirable.¹²

None of these nations, however, mastered the process of innovation, and eventually their growth sputtered—dramatically in the cases of Russia and Japan. This slowdown demonstrated that the rapid accumulation of factor inputs and copying (or outright stealing) more advanced technology could lift incomes, but ultimately was not self-sustaining (Aghion and Griffith, 2005: 1). Trade-driven policies also often provide only a temporary boost to growth because they are "always vulnerable to political events" such as protectionism and eventually "run into diminishing returns" (Mokyr, 1990: 147).

As well, while mechanical growth accounting seemed to explain rising incomes in some countries, it conflicted with the results of development accounting. The latter was encouraged by new data sources that allowed economists to study growth in many nations over long periods. Development accounting revealed that differences in the level of human and physical capital and the efficiency with which they were combined could not explain the different levels of income in a cross-section of countries (Casselli, 2005: 680). A further flaw was that economists could not explain why trade did not equalize the ratio of capital to labour and factor prices over time—famously, capital flows stayed within developed countries, instead of seeking out what should have been higher returns in developing countries (Lucas, 2002: 34).

Many economists repeated the same mistake in studying the process of innovation by emphasizing inputs such as research and development, science, and education, and ignoring the pivotal role of cultural values (Cross, 2021).

The fawning over the former Soviet Union is especially ironic from today's perspective. The journalist Lincoln Steffens infamously said upon his return from Soviet Russia in the 1930s that "I've seen the future, and it works" (McCraw, 2007: 321). Paul Samuelson, author of the most widely used economics textbook, predicted in the 1961 edition that Soviet GDP would surpass the that of the United States possibly in 1984 and probably by 1987. The 1980 edition pushed back those dates to 2002 and 2012 (Acemoglu and Robinson, 2012: 128).

Over time, leading growth theorists became disenchanted with the emphasis on inputs and efficiency, which relegated the largest part of explaining growth to the "black box" of Solow's residual. Schumpeter anticipated this result in 1947, writing that, "only in very rare cases" could economic development be explained in terms of "causal factors such as an increase in population or the supply of capital" (quoted in Cipolla, 2016: 76). Even the links between savings, investment, and growth were questioned as there was little evidence that capital accumulation precedes higher economic growth, which is "consistent with the view that productivity growth drives investment" (Helpman, 2004: 159). ¹³ All these results undermined faith in the specific recommendations of early growth theory. Citing the work of Bill Easterly, a critic of the ability of economists to provide specific recipes for economic growth, Abhijit Banerjee and Esther Duflo have observed that "growth rates for the same country change drastically from decade to decade without much apparent change in anything else" (Banerjee and Duflo, 2019: 182). This implies that what is required is "something more and this something more can always be understood ex post; but it can practically never be understood ex ante" (Schumpeter, quoted in Cipolla, 1991: 71).

In response to the rising challenges to traditional growth accounting, economic thinking about growth shifted to emphasize innovation. Starting in the 1990s, "new models of endogenous growth questioned the neoclassical emphasis on capital accumulation as the main engine of growth, focusing instead on the Schumpeterian idea that growth is primarily driven by innovations that are themselves the result of profit-motivated research activities and create a conflict between the old and the new by making old technologies obsolete" (Aghion and Durlauf, 2005: xi). Philippe Aghion and Rachel Griffith conclude that, "in advanced knowledge-based economies, where the growth potential of factor accumulation and imitation have been exhausted, frontier innovation becomes the main source of growth" (Aghion and Griffith, 2005: 2).

Paul Romer advanced a new theory of economic growth based on the premise of increasing returns to knowledge and ideas. As a result, "[w]hen knowledge spreads from person to person, that knowledge isn't diminished or worn out. Instead, ideas tend to become *more* useful when they become more popular—their consumption leads to increasing returns and new innovations" (Lehrer, 2012: 222, emphasis in original). Romer's approach addressed the empirical finding that not only did growth reach a steady rate, but also that "growth seemed to have been speeding up for more than a century instead of slowing down, as had been expected. He reasoned that it must have to do with the internal dynamic of science: the more you learn, the faster you learn new things. If knowledge was the source of increasing returns, then accumulating more of it should mean faster

Although capital accumulation does not precede growth, it is important in sustaining growth, as new capital embeds the latest technologies.

growth—which was, in fact, the record of the preceding two hundred years" (Warsh, 2006: 207).

Growth-versus-Level Effects Show the Limits of Government Growth Policies

The contrast between economies capable of sustaining growth over long periods and those that faltered after a brief burst also reflects that economists do not distinguish enough between parameters that affect the level versus the growth of income. Lucas defines level effects as the "one-time shifting upward in production possibilities," while growth effects are "changes in parameters that alter growth rates along balanced paths" (2002: 29). Examples of level effects are the removal of trade barriers and the reform of tax policy or education.

Most policy recommendations by economists emphasize level effects. As such, economists mostly prescribe policies that give a one-time lift to growth, rather than the more difficult task of creating an environment that sustains growth. Lucas makes the point that many recommendations from neoclassical growth theorists "add little to what common sense would tell us about the direction of each effect—it is easy enough to guess which changes stimulate production, hence savings, and hence (at least for a time) economic growth. Yet most such changes, quantified, have trivial effects: The growth rate of an entire economy is not an easy thing to move around" (Lucas, 1988: 13, emphasis in original). Harvard economist Dani Rodrik also has found only a weak link between public policy and economic growth. He concludes that "most instances of economic reform do not produce growth accelerations" and that "most growth accelerations are not preceded or accompanied by major changes in economic policies, institutional arrangements, political circumstances, or external conditions" (quoted in Ridley, 2016: 228). The problem, as Rodrik notes, is that "igniting economic growth and sustaining it are somewhat different enterprises. The former generally requires a limited range of (often unconventional) reforms that need not overly tax the institutional capacity of the economy. The latter challenge is in many ways harder, as it requires constructing a sound institutional underpinning to maintain productive dynamism and endow the economy with resilience to shocks over the longer term" (Rodrik, 2005: 973).

The difference between level and growth effects and the apparently weak link between public policy and growth help explain Canada's so-called policy conundrum (Drummond, 2011). Canadian policy makers have adopted many of the policies recommended by economists, including negotiating free trade deals, making large investments in education, adopting consumption and carbon taxes,

and generously supporting R&D. Nevertheless, Canada's GDP growth continues to sputter, partly reflecting that many of these policies are relatively unimportant compared with cultivating a culture in which entrepreneurship and innovation thrive. Simply ticking off boxes from a policy menu recommended by economists that offers only a one-time boost to the level of income does not create sustained growth. This might be why the growth councils created by Morneau or Raitt and McClellan failed to deliver and why another Royal Commission on economic growth (we have had two in the past)¹⁴ likely would be a waste of time and money.

Not only have many government initiatives in Canada failed to boost growth; they often have added to government debt. Repeatedly, new government spending programs are justified as "paying for themselves"—as was claimed for everything from expanded child care 15 to investment infrastructure and health care. The track record, however, is one of persistent budget deficits and chronic slow growth. Another shibboleth demolished by the past decade of diminishing growth is that the pursuit of environmental goals would not compromise economic growth and that green energy projects would supply the jobs of tomorrow. Instead, Canada has achieved the worst of both worlds. It "has had nine climate plans since 1990s and has failed to hit any of the targets in them," as greenhouse gas emissions have risen steadily (MacKinnon and Mintz, 2023). At the same time, actively discouraging the development of oil sands and pipeline projects has limited the growth of the energy industry, which could have spearheaded growth in Canada as it did in the United States, which successfully reduced emissions significantly while sustaining economic growth. Nor has stifling Canada's energy industry had any material impact on global greenhouse gas emissions and climate change, since Canada accounts for a trivial 0.3 percent of global emissions. Global emissions continue to rise because of increases in developing countries such as China, India, Indonesia, and Iran, which have offset double-digit reductions in the United States and the EU.

It is hard to argue with Ruchir Sharma's conclusion that "there is no magic formula" for rapid growth over long periods (Sharma, 2012: 254). Sharma acknowledges, however, that "a long list of known ingredients" helps sustain growth, including allowing the free flow of goods, money, people, and especially ideas. More broadly, the World Bank's 2006 Growth Commission, headed by Michael Spence and including Robert Solow, found that nations that sustained growth of 7 percent or more for 25 years shared an institutional environment of "economic openness, macroeconomic stability, committed and capable government, high rates of saving and investment, and a reliance on market forces to allocate

 $^{^{14}}$ The 1940 Rowell-Sirois Commission and the 1985 Macdonald Commission.

For example, the 2021 federal budget cites studies that find, "for every dollar spent on early childhood education, the broader economy receives between \$1.50 and \$2.80 in return" (Canada, Department of Finance, 2021: 100).

resources" (quoted in Dobson, 2019: 23). The argument of this paper is not that these variables are not important to growth, but that, in the absence of a culture that embraces innovation, they are likely to produce disappointing results, as has happened in Canada.

The Importance of a Society's Culture to Growth

As economists learned to appreciate the primordial role of innovation in sustaining long-term growth, their understanding of its drivers shifted from an exclusive focus on inputs (such as R&D and education) to cultural values. Deidre McCloskey assigns a pivotal role to culture in The Great Enrichment that spread through the Western world starting in the nineteenth century, arguing that "there was a sharp rise in society's receptiveness to improvers" (2016: 472). Mokyr concurs that "growth through innovation is in large part dependent on a direct link between culture and technology" (2016: 17) Phelps argues that the Industrial Revolution "depended on the rise of a new force: economic dynamism. And what sparked this dynamism was a new economic culture" (2013: 109). All three economists agree that culture is what drives creativity and innovation, not just education, trade, or other institutions embraced by early growth economists and still the focus of policy makers in Canada.

What do economists mean by culture? Douglass North has affirmed that "culture consists of the intergenerational transfer of norms, values, and ideas" (2005: 50). This is close to Friedrich Hayek's definition of culture as "the transmission in time of our accumulated stock of knowledge" (quoted in North, 2005: 51) and Joseph Henrich's that "culture is a set of learned rules of behavior" (quoted in Koyama and Rubin, 2022: 66). Mark Koyama and Jared Rubin agree: "We mean culture in the way cultural anthropologists use the term: those heuristics employed by people to interpret the complex world around them" (2022: 14). *The Economist* (2020) has a slightly broader concept of culture as "a catch-all term encompassing a society's beliefs, preferences and values."

Economists traditionally have been hesitant to investigate the importance of culture to economic growth because cultural values were hard to quantify, despite their importance. Robin Matthews noted how the lack of hard data led economists to ignore culture even though "it has commonly been supposed that the promotion of growth includes as a major element the inducement of changes in attitudes and changes in social relationships...Their effects on welfare are obviously very difficult for economists to measure" (Matthews, 1972: 91). David Landes explained the reluctance of academic economists to incorporate culture into growth studies: "If we learn anything from the history of economic development, it is that culture makes almost all the difference...Yet culture, in the sense of

the inner values and attitudes that guide a population, frightens scholars" (quoted in Sowell, 2016: 87). In the absence of hard data, Solow warned that linking growth to culture could end up "in a blaze of amateur sociology" (quoted in *The Econo*mist, 2020). Because of the difficulty of their quantification, cultural values risked becoming just another part of the Solow residual representing the "measure of our ignorance" about the forces generating economic growth.

Fortunately, economists recently have made advances in quantifying the importance of culture to growth. As a result, "recent scholarship demonstrates that culture is amenable to serious social scientific study" (Koyama and Rubin, 2022: 14). Edmund Phelps and his associates have pioneered the measurement of cultural values and quantified their importance to total factor productivity growth in various nations. In particular, they find cultural traits such as "trust, the willingness to take the initiative, the desire to achieve on the job, teaching children to be independent, and the acceptance of competition contribute positively to economic performance" (Bojilov, 2020: 24).

As David Smick concludes, understanding how economies grow must go beyond statistics and formulas. This is because "[a]n economy's health depends on behavioral elements that don't always fit on a spreadsheet. Economies are not just a collection of abstract statistics about monetary velocity, aggregate demand, trade imbalances, and output. Economies are a consensus of the hopes, dreams, and feats of people, the emotions that drive consumer confidence and that lead people to start new firms or expand existing ones. In an economy, the behavior of people matters" (Smick, 2017: 18). The hesitance of many nations to embrace business openly reflects the difficulty of rallying support for capitalism. Although political history is littered with parties espousing socialism, "there has never been a single political party called capitalist. There is not even a name for a supporter of capitalism. A socialist champions socialism; a democrat champions democracy. But a capitalist is someone who owns and manipulates capital" (Tupy and Pooley, 2022: 407).

It is not enough for a society to have a group of dynamic entrepreneurs brimming with innovative ideas. McCloskey points out it is as important to know "the ideas in the society at large about the businesspeople and their betterments" (2016: xii). If a society is hostile to entrepreneurs doing better for themselves, they will remain inert or move to a more receptive region.

I argue that a key factor in Canada's slumping economic performance over the past decade is a decline of the cultural values that foster innovation. Canada fares poorly in several of these values, especially accepting competition and encouraging youths to be independent (Zoega, 2020: 113). Canada has not always fared poorly in innovation: it posted the fastest rate of total factor productivity growth among the future G7 nations before 1914, and recorded growth of over 20 percent in the 1950s and 1960s. Canada shared with the United States a strong entrepreneurial spirit from the start because, as the historian Carl Degler wrote,

"Capitalism came in the first ships" (quoted in McCraw, 2007: 149). Since 1970, however, Canada's record on total factor productivity growth has been the second lowest, ahead of only Italy in the G7 (Bojilov, 2020: 42).

There are several possible reasons for Canada's faltering performance in innovation, which economists struggle to explain. One is Canada's increasing reliance on government planning to drive growth, rather than what McCloskey calls the "improvers" in the business sector. For example, a key recommendation of Morneau's advisory council was the ill-fated creation of five government-identified and -supported "clusters" for growth. This was the opposite of the course taken in the United States, where "America has succeeded not because of the ingenuity of its government planners but because of the vigor of its society" (Zakaria, 2008: 283). Relying on government planning to drive growth ignores the antipathy that exists between much of the public service and the private sector, with many government ministries acting like the "Circumlocution Office" that devoted itself to obstructing economic progress in Charles Dickens's *Little Dorrit* (Stephan, 2012: 72). It is the free market, not government planning, that creates the miracle of growth: "Whatever the deficiencies of the free market, it is certainly very good at one thing: the manufacture of economic growth" (Baumol, 2002: 2).

There are several manifestations of Canada's lack of support for business innovation. A recent Nanos poll on the "institutions that contribute to make Canada a better country" reflects a fixation on the public sector to the exclusion of the private sector. All the institutions listed were from the public or non-profit sector, including universities, health care, the Supreme Court, the armed forces, the RCMP, the prime minister, the House of Commons and the Senate, arts and cultural organizations, and even the governor general (Nanos, 2023). No private sector institution was regarded as making an important enough contribution to life in Canada to be included in the survey. This is not a criticism of Nanos, which is simply reflecting Canada's stunted public discourse about the determinants of economic growth.

Former Liberal premier of Ontario Dalton McGuinty's autobiography reveals much about the gulf that now separates Canada's political leaders and the business community (see Cross, 2016a, for a detailed review of McGuinty's book). McGuinty barely mentions business firms, devoting most of his memoire to his unrelenting effort to improve public services. Not surprisingly, the move of several of McGuinty's most senior advisors from Queen's Park to Parliament Hill after the federal Liberals' electoral victory in 2015—including Trudeau's chief of staff Katie Telford and principal strategist Gerald Butts—saw the same indifference to business interests, bordering on antipathy for the resources industries, installed in the seat of federal power. Lamenting the growing gap between business leaders in Canada and the federal government, one executive complained: "There's a lot of listening, but not a lot of action. And it's almost like they listen to placate us, honestly. Because the ideologies are different, they don't have a lot of

intent to really act on what we're doing. And business is incredibly frustrated by that" (David McKay, quoted in Bradshaw and Willis, 2022).

Ignoring or downplaying business innovation has had negative results beyond the growing gap between US and Canadian GDP per capita. Successful Canadian firms on the world stage have become a rarity. The Financial Times list of the 100 leading global firms used to have half a dozen Canadian firms in the 1990s, but that has dwindled to one: Shopify, whose stock has sagged recently as the pandemic -induced surge of online shopping fades (Cross, 2016b: 1). Canada's slide into mediocrity and irrelevance in the world also is evident in *Time* magazine's annual list of the world's 100 most influential people. Canada's lone entry in 2023 (it had none in 2022) puts it in the same category as Ghana and Kenya and behind Iran, Turkey, Nigeria, and Syria (all with two entries each) and India's four.

Even when some businesses are successful in Canada, they are not held up as models to emulate but as targets for higher taxation—such as our banks, despite their reputation for stability during the 2008 Great Financial Crisis—or outright demonization, as in the oilsands and pipelines. Paul Wells, one of Canada's leading political commentators, has observed that, rather than celebrating successful companies, "in Canada, if you run a successful business, you are made to feel you have done something wrong."

Canadians might be content for a while with the level of their standard of living even if it no longer is growing. The standard of living of a society lacking in the values that foster innovation can still be relatively high from relying on past successes and importing technology. McCloskey notes that even badly governed countries enjoy a high standard of living because the "Great Enrichment consists not of little efficiencies but of utterly novel betterments...Such betterments are so profitable that they get adopted at least in the private sector of even a badly governed economy, such as Italy's, with pretty satisfactory results" (2016: 134).

Canada can choose to stagnate at its current standard of living, continuing to import from the United States innovations such as vaccines, social media, fracking, and smartphones. Inevitably, however, through constant media exposure and first-hand experience from travel, Canadians will see their standard of living is falling behind as the United States profits more from future innovations, such as laser technology, genetic engineering, and the like. A society that believes solely in higher consumption, propped up by government transfers and imported technology, cultivates a populace that accords with Nietzsche's vision of a nation "without any ideals or aspirations, but well fed, well clothed, well housed, well medicated" (Lampert, 2013: 250). Such a nation has the exact opposite of the characteristics an innovative society would hold.

Canada needs to resurrect a culture that encourages its entrepreneurs to compete and innovate. Randall Holcombe describes how, when entrepreneurship is seen as the engine of growth, "the emphasis shifts toward the creation of an environment within which opportunities for entrepreneurship are created, and successful entrepreneurship is rewarded" (quoted in Ayittey, 2007: 150). Such an environment needs more than specific government policies and targeted aid to individual firms, but also a shift in societal attitudes that encourage young people to consider a career in business, rather than becoming drones in government bureaucracy.

As McCloskey emphasizes, words matter when it comes to creating wealth. There is a striking difference in how Canadian and American societies talk about their business sector. Humphrey Bogart articulates the case for capitalism and progress in the popular film *Sabrina* when describing the benefits of a successful business:

A new product has been found, something of use to the world. So a new industry moves into an undeveloped area. Factories go up. Machines are brought in. A harbor is dug and you're in business. It's purely coincidental, of course, that people who never saw a dime before suddenly have a dollar. And barefooted kids have shoes and get their teeth fixed and their faces washed. What's wrong with the kind of an urge that gives people libraries, hospitals, baseball diamonds and movies on a Saturday night? (Wilder, 1954)

The United States has been an undeniable success in fostering the values that lead to innovation. All its major trading partners want to duplicate the success of the United States in nurturing firms that have dominated technological innovation over the past decade, including Facebook, Amazon, Apple, Netflix, and Google—sometimes referred to as the FAANG group of companies. This success makes the Biden administration's policy of massive subsidies to business in its *Inflation Reduction Act* so puzzling. US firms have demonstrated a willingness to invest and an ability to innovate without the extensive government meddling in investment decisions that has proved so counterproductive in Canada. Not surprisingly, Canada has responded to the subsidies in the *Inflation Reduction Act* by matching their terms in deals made with electric battery manufacturers that will cost taxpayers billions of dollars while encouraging more firms to engage in rent seeking from governments, rather than innovating in the marketplace.

An Innovative Culture Rebounds Quickly from Negative Shocks

A society with a culture that supports innovation can rebound from large negative shocks to its efficiency. This resilience allows growth to be sustained over long periods, despite what would seem as overwhelmingly adverse circumstances. For example, international trade contracted with the spread of protectionism between World Wars I and II, but innovation in the United States remained brisk during the 1930s (Field, 2011). Similarly, while much of Europe's capital stock was destroyed during World War II, it was rapidly rebuilt because "the cultural prerequisites—the human capital—which produced the physical capital in Western Europe before the war survived the war and could produce it again. But that particular human capital, which developed over the centuries in Western Europe, did not exist on the same scale in the Third World" (Sowell, 2016: 89). Joel Mokyr summarizes the remarkable resiliency and sustainability of the Western world in the twentieth century in the face of "two horrid World Wars, a hugely costly depression, the collapse of international trade after 1914, the disastrous collectivist experiment in Russia extended to all of Eastern Europe in 1945, and the loss of its Colonial Empires—all of which should have pointed to catastrophe, misery, and a return to economic barbarism...Despite these huge setbacks, the engine that drove the Occident express had become so immensely powerful that it easily overwhelmed the twentieth century roadblocks that bad luck and human stupidity placed on its tracks. The Great Divergence train stormed on, undaunted" (Mokyr, 2005: 1170).

Hopes were raised early in the COVID-19 pandemic that the upheaval it spawned would spark a surge of innovation. This was based on past shocks such as war, revolution, and natural disasters that triggered a wave of creative destruction that raised productivity. This phenomenon was first observed by Mancur Olsen, who argued, as summarized by Atkinson and Ezell (2014: 168) that "countries whose economic foundations have suddenly been shaken tend to grow and innovate faster than more stable nations." Major shocks boosted productivity and growth "because such stormy events sweep aside the old regimes that restrained free commerce" and accelerated the forces of creative destruction (Buchholz, 2016: 118).

The quick discovery of vaccines against the COVID virus and the rapid shift to online work, shopping, and communicating seemed to promise that the pandemic would usher in a burst of innovation. So far, the exact opposite of creative destruction has happened, as massive government subsidies insulated many firms and households from the need to make fundamental changes other than the occasional virtual meeting or online financial transaction. As a result, the bankruptcy rate confounded predictions by declining even as the economy shut down, inflation surged, and interest rates spiked. Instead of initiating a new round of digitization as people worked and shopped from home and reconfigured supply chains, "the post-pandemic economy looks remarkably similar to the pre-pandemic one" (*Economist*, 2023a). This continuity partly reflects that, with reconfigured supply chains and higher inventories, a redundancy was built in that raised resilience but lowered productivity (*The Economist*, 2022). The result, as the Bank of Canada has noted, is that, although productivity in Canada declined during the pandemic, there has not been a fully offsetting rebound and the Bank no longer expects one to happen (Bank of Canada, 2023).

Conclusion

Faltering business investment and exports have meant that Canada's economic growth over the past decade has been the worst since the 1930s. Slumping investment and exports reflect structural problems that threaten to persist for years. There is much that is flawed in the growth model Canada has pursued in recent years. Part of the problem is overreliance on short-term stimulus from monetary and fiscal policy, which has resulted in excess spending on consumption and housing. Policy makers also have pursued initiatives that have provided at best a one-time lift to incomes, but have not cultivated an environment in which growth is sustained. The failure of firms in Canada to profit from free trade deals with the EU and Japan shows that institutional arrangements by themselves do not create growth. This failure contrasts with the success in the 1990s of the free trade agreement with the United States—a reflection of the loss of dynamism in Canada's business firms. This larger problem resides in Canada's contemporary culture, which has moved to avoiding risk, discouraging entrepreneurship, resisting change, and prioritizing government planning over market competition.

The question remains whether policy can influence cultural values. The late US senator Daniel Patrick Moynihan summarized the importance of culture and how it can change to foster growth: "The central conservative truth is that it is culture, not politics, that determines the success of a society. The central liberal truth is that politics can change a culture and save it from itself" (quoted in Zakaria, 2008: 74). Canada needs its leaders in politics, the media, and education to initiate a change in its culture that emphasizes the need for sustained economic growth. Provoking cultural change, however, will require a change in the way governments talk about and interact with firms, especially the dwindling number of successful ones.

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