THE PATH TO PROSPERITY:
RESETTING CANADA'S GROWTH TRAJECTORY

ADVISORY COUNCIL ON ECONOMIC GROWTH

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How can we accelerate the growth of the Canadian economy and improve the prosperity of all Canadians over the coming 10 to 15 years?

That was the question posed by Canada's Minister of Finance when he convened the Advisory Council on Economic Growth in early 2016. The Council's mission is to examine the long-term potential of Canada's economy and, based on its findings, to make recommendations for improving the prospects for inclusive economic growth.

The Council is convinced the formula that drove the past growth of the Canadian economy—and supported steady improvements in our standard of living—is unlikely to be sufficient for the future. Like many other advanced economies, Canada faces the pressure of an aging population, technological disruption to many sectors of the economy, and the rapid shift of global economic power to Asia. Current trends suggest that annual GDP growth in Canada will average only 1.5 percent over the next 50 years—half the rate of the past 50. Left unchecked, the slower pace of growth would have a profound impact on the prosperity of Canadian families and the outlook for them and their children.

This does not have to be the case. Canada's numerous natural advantages, coupled with the opportunities created by a rapidly changing world, offer the potential to stimulate new waves of investment, innovation, and job creation, unlocking a new formula for growth and prosperity. The challenge that the Council set for itself was to identify bold solutions that could jolt the economy, stimulate inclusive growth, and help raise the quality of life for all Canadians, targeting a $15,000 increase in median annual pre-tax household income above current projections by 2030.

This document lays out a third release of Council recommendations for resetting the country's long-term growth trajectory for the benefit of all Canadians.

In October 2016, the Council released its initial findings and its first wave of three recommendations. They included increasing investment in infrastructure, a plan for raising foreign direct investment in Canada, and a set of proposals for attracting the immigrant talent Canada will need to fuel its growth.

In our second wave of five recommendations, released in February 2017, we detailed how Canada can unlock innovation by supporting innovation marketplaces, improving access to growth capital, and embracing a strategic approach to government procurement while also modernizing government innovation programs. Additionally, we recommended that Canada: establish a FutureSkills Lab to study and help develop the new skills that Canadians need; boost private-sector growth by unlocking six to eight high-potential sectors; deepen its trading relationships in Asia and Europe; and stimulate greater workforce participation (particularly among Indigenous peoples, lower-income Canadians, women with young children, and Canadians over the age of 55).

Our third set of recommendations, released today, addresses two additional elements of Canada's growth agenda: business investment, and skills development for working Canadians. We need to modernize Canada's regulatory and tax regimes so they promote more investment and innovation, enabling enterprises to pursue growth opportunities; and we must expand our support for Canada's small and medium-sized enterprises, helping them adopt new technologies and enter new export markets. We also need to ensure that the government,[1] employers, and individuals all dramatically increase their investments in skills development for working Canadians given the expected major disruption that technology will bring to the world of work.

The Changing Drivers of Economic Growth

For decades, growth in most advanced economies, including Canada, has been driven by the accumulation of physical assets, population growth and the concurrent increase in labour force participation (particularly by women and the "baby boom" generation), and advances in technology that have created new industries and improved productivity in older ones. Propelled by these forces, Canada's economy stands in an enviable position today. We have a vibrant democracy, with a tradition of pluralism and diversity. Our economy is strong and fiscally stable: Canada has abundant natural resources, a highly educated labour force,[2] a trusted business environment, low public debt, and a stable banking sector.

However, the drivers of growth in the world economy are changing. Three principle forces are redefining how economies can succeed in the years ahead:

1. The pace of technological change has accelerated rapidly, reshaping business and the world of work

The pace at which new technologies are developed and adopted has accelerated during the past five to ten years, as has the introduction of new technologies (like self-driving cars), products (such as mass-market drones), applications (like assisted living healthcare applications), and technology-enabled solutions (such as additive manufacturing systems, or robo-advisers in wealth management).[3] Rapid improvements in research and industry tools have also helped shorten development cycles in many sectors, from pharmaceuticals to automobile manufacturing. Much of this has happened very quickly, and the pace of change fueled by technology continues to rise.

- Data and information and communications technology (ICT) are becoming the lifeblood of the global economy, fueling ideas for new products and services, and advancing the transnational flow of trade, capital, and ideas. There are at least three times as many connected devices in the world today as there are people.[4] Meanwhile, the cross-border flow of digital information—searches, transactions, communications—has increased five-fold since 1990.

- The shift in value from physical to digital information goods—already reflected in financial markets—will only increase. Technology is now the largest sector of the world economy, eclipsing even financial services, and includes five of the top 20 public companies by market capitalization.[5] These global phenomena are in full effect in Canada, too.

- Technology is changing the work Canadians do, and where they do it. Already, 43 percent of activities performed by Canadian workers could be automated using available technology.[6] The adoption of such innovations in work processes is creating new employment opportunities, but these positions require different skills (by some estimates, Canada already has a shortage of 19,000 data and analytics professionals). Jobs requiring low- and medium-level skills are at particular risk of automation.[7]

2. Economic power is shifting from west to east, changing global trade flows

Economic competition, whether for capital, talent, or ideas, is global. And global purchasing power is increasingly concentrated in developing and emerging economies, particularly in Asia and, to some extent, Africa. By 2028, the world may have as many as 2 billion more middle-class consumers—nearly 90 percent of whom will live in Asia—representing an additional $30 trillion in annual spending.[8]

- Over the past 10 years, the world economy has grown by 2.5 percent per annum while the G7 economies are growing at just under one percent.[9] By 2050, six of the seven largest economies in the world will be in emerging markets, with three of top four in Asia.[10]

- During the past decade, trade between emerging economies has doubled as a share of global trade. Trade between China and Africa alone grew from $9 billion in 2000 to $211 billion in 2012. Europe and North America no longer represent the two critical hubs of trade flow. Rather, trade relationships have become more complex and fragmented—with Asia quickly becoming the world's largest trade region.[11]

- By 2025, half of all companies with revenues of $1 billion or more will be headquartered in emerging markets, particularly in Asia. More large companies will be based in China than in the United States or Europe.[12]

- As a relatively small and open economy, Canada depends on international trade to generate growth and prosperity. Trade accounts for 65 percent of our GDP, as opposed to 30 percent in the United States. Therefore, it is imperative that we deepen our trading relationships with emerging economies such as China and India. For Canada to prosper, it must participate in markets that are growing and increasingly significant.

3. The populations of many advanced and emerging economies are aging

The majority of the world's population lives in nations where fertility rates are below replacement rates—in short, these countries' populations are gradually aging.[13] The resulting decline in labour-force participation rate will limit the potential for economic growth, and a rising population of seniors will strain public finances.

- Employment growth was a significant factor in global GDP growth, which expanded six-fold between 1964 and 2014. During this period, the global workforce grew by an average of 1.7 percent annually. However, due to aging, total employment is likely to peak soon and then start declining.[14] The drop in the relative share of working-age adults likely will lead to a decline in income per capita, reducing overall prosperity.

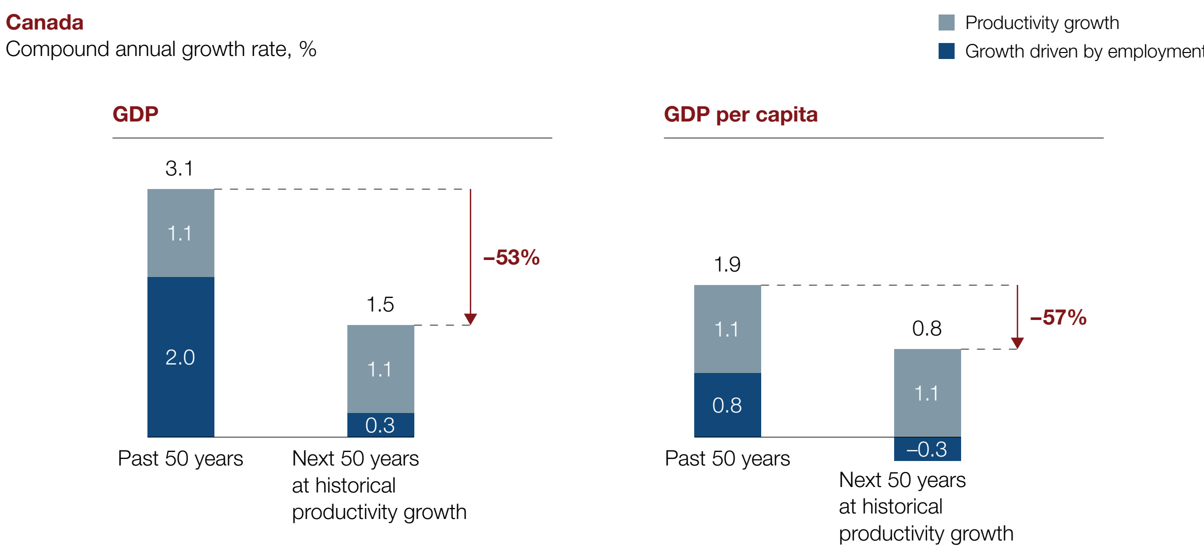
- At the same time, caring for large numbers of the elderly puts severe pressure on government finances. By 2020, more than a billion people around the world will be over the age of 60.[15] Declining growth and the shrinking share of working-age adults will make it harder to support a robust social safety net.

- In Canada, the support ratio—the number of people in prime working age (between 15 to 65 years old) per senior (person aged 65 years or older)—is on a steady downward trajectory. It has declined from 6.6 in the early 1970s to 4.2 in 2012. By 2030, it is projected that there will be only about two working-age adults supporting each senior.[16]

The world is going through a period of unprecedented change, which offers many opportunities but also brings significant volatility. Disruptions caused by new digital technologies are leading to quick productivity gains, but they are also making companies increasingly vulnerable to critical cybersecurity breaches. The rapid speed with which capital can move around the world has proven helpful to nations eager to attract foreign investment, but it has also contributed to volatility in markets for nearly every financial asset class. The mobility of talent around the world has stimulated the exchange of ideas, but growing migration and globalization have also given rise to anti-trade and anti-immigrant sentiments in some countries.

Canada must be prepared to navigate this change and volatility. It can no longer rely on the old formula for economic growth, which emphasized investments in machinery and equipment, and population growth. Given our aging population and chronic underperformance in productivity,[17] we estimate that GDP per capita will grow by only 0.8 percent annually over the next 50 years versus 1.9 percent over the past 50 years (see Exhibit 1)—a decline that would limit continuing improvement in living standards. Although these trends

Exhibit 1 **Canada's past and projected GDP growth**



Note: Numbers may not sum due to rounding.

Source: The Conference Board Total Economy Database; United Nations Population Division are also at work in other advanced economies, Canada faces the largest potential declines in GDP and GDP-per-capita growth among the world's advanced economies.[18]

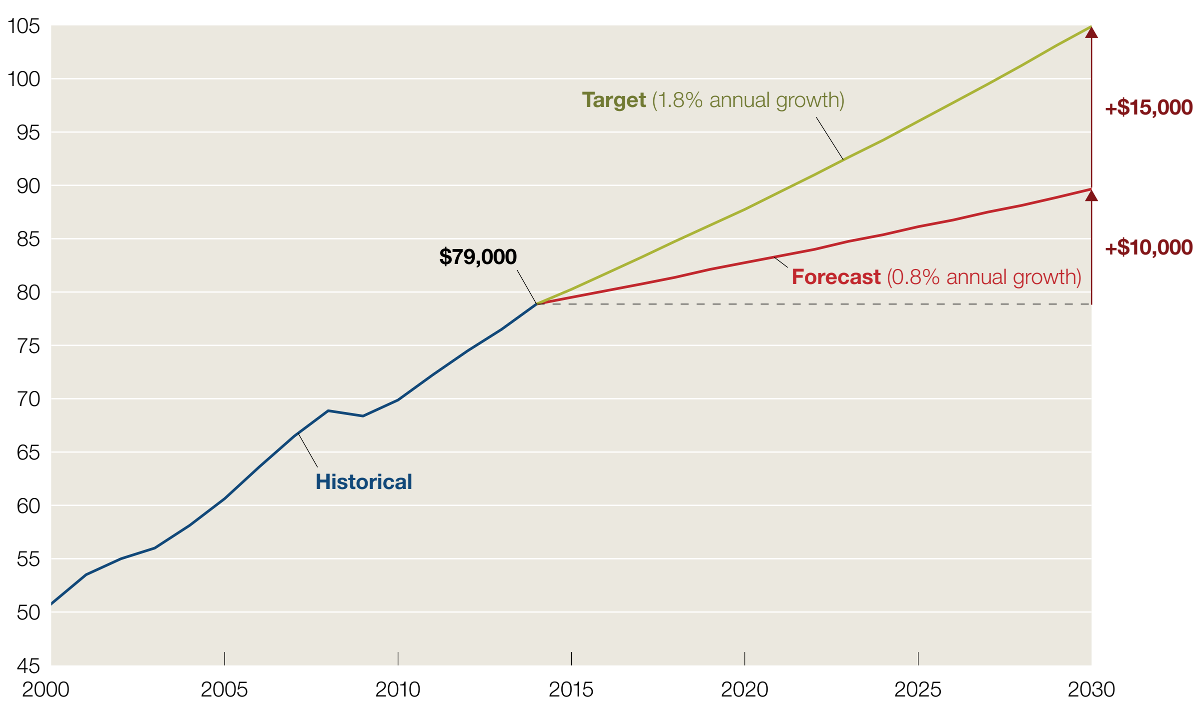
A Strategy to Create Prosperity for All Canadians

Changing the course of the Canadian economy over the next 50 years will require a series of bold actions in areas such as infrastructure, foreign direct investment, immigration, and skills training. Successful initiatives would not only restore GDP growth rates to historic levels, but would encourage more inclusive growth, which is crucial to social cohesion.

That is why, when we started our work in 2016, the Council set a goal to raise real, median annual pre-tax household income above the forecasted 2030 baseline. This would mean a boost in total income for the median Canadian household from about $79,000 in 2014 to roughly $105,000—considerably above the $90,000 expected[19] (see Exhibit 2).

Exhibit 1 **The Council's target**

Real median household income
2015 Canadian $



The Council is confident that Canada has the right ingredients to become the most globally connected and innovative country in the world, an engine for propelling Canadian champions onto the global stage, home to a resilient and engaged workforce, a magnet for global talent and capital, and a leader in governance models that mobilize Canada's best capabilities. The Council believes that if our recommendations are implemented in full, Canada can more than realize this aspiration.

Our approach

To date, the Council has released eight recommendations for resetting Canada's growth trajectory. These include:

1. Develop a focused federal infrastructure strategy and establish a Canadian Infrastructure Development Bank;

2. Become a top-tier foreign direct investment (FDI) destination by developing an FDI strategy in line with the country's economic growth strategy, and creating an FDI agency (Invest in Canada Hub) to attract anchor companies;

3. Increase annual permanent economic immigration levels from 300,000 to 450,000 over five years, streamline the entry for top talent (specialized workers and executives, for example), and rethink Express Entry points allocations to qualify more international students;

4. Unlock innovation and support its commercialization by establishing business-led innovation marketplaces (superclusters), creating additional pools of growth capital for promising companies, leveraging strategic government procurement to help innovators identify a "reference customer," reviewing and rationalizing government innovation programs, and expediting entry for top talent;

5. Establish the FutureSkills Lab, a non-governmental organization to study current and future skills demand and serve as a laboratory for skills development and measurement;

6. Unleash growth in six to eight high-potential sectors (for example, agri-food, advanced manufacturing, energy and renewables, and health care and life sciences) by taking a new aspirational and collaborative approach to sector development;

7. Increase workforce participation, in particular among Indigenous peoples, lower-income Canadians, women with children, and Canadians over the age of 55;

8. Position Canada as a global trading hub by strengthening links to large and fast-growing Asian economies, nurturing the North American trade relationship, and investing in trade infrastructure.

The government has quickly put these recommendations under consideration, and has acted on many of them already. For example, it has passed legislation to establish the Canadian Infrastructure Bank, the Invest in Canada Hub and a skills innovation lab; increased the level of permanent economic immigration; launched six business-led Economic Strategy Tables; and shortlisted nine candidates for the new innovation superclusters. Still, Canada must take many more actions in the months ahead. We review what has been achieved and what remains to be done in a report that we are issuing today along with our third set of recommendations, "Ideas into Action: A Review of Progress Made on the Recommendations of the Advisory Council on Economic Growth."

What Remains to Be Done: Creating a Resilient Economy and Workforce

Two additional issues need to be addressed in Canada's growth agenda, in the critical areas of business investment and workforce skills development. In the future economy, both individuals and enterprises will need the capabilities and flexibility to identify and seize opportunities quickly. In acknowledgement of this, we are releasing recommendations for building economic resilience, and creating a highly skilled, confident, and productive workforce.

Investing in a resilient Canadian economy

Business investment—in everything from machines to software to people—is a core driver of economic growth. However, Canadian companies invest notably less than their global peers, a gap that, in the long term, leads to a reduction in the standard of living of all Canadians.

To drive greater investment, especially in the innovative technologies that will power the economy of the future, we need bold policy changes.

First, we must transform our regulatory system into a catalyst for innovation throughout the economy. We recommend that the government establish an Expert Panel on Regulatory Agility and Innovation that will be responsible for ensuring our regulations keep pace with the creativity of Canadian innovators and entrepreneurs. The panel will also drive better coordination between agencies and jurisdictions, and promote efficient and predictable regulation.

Second, we need to conduct a targeted review of our tax system to ensure that the tax regime fosters the development and adoption of innovation, and secures Canada's position as a global magnet for investment and talent. It is worth noting that it has been decades since the last significant review of Canada's tax system—years before the emergence of mobile phones and the internet, and the rise of the digital economy.

Third, we need to offer small- and medium-sized enterprises dedicated advisory services so they can effectively pursue the opportunities presented by new technologies and growing export markets.

Equipping Canada's workforce with skills for the future

Canada's current skills development infrastructure is not equipped to manage coming labour-market disruptions. The system today rests primarily on two pillars: the first one supports the development of skills before people enter the workforce, through K-12 and post-secondary education; the second supports individuals when they leave the workforce, by providing assistance to the unemployed and the retired. That leaves a large gap in institutional support and training during Canadians' most productive years, at a time when technological changes are transforming many occupations and affect a wide swath of the working population.

Canada urgently needs a third pillar that focuses on supporting working adults. The Council anticipates that managing the expected labour market turmoil will require an additional $15 billion of annual investments in adult skills development. The magnitude of the coming shifts also necessitates the development of a comprehensive Skills Plan for Working Canadians that will guide Canada's approach to assisting adults in capturing new occupational opportunities. To provide a starting point for this conversation, we offer two concrete proposals:

1. New, federally governed Canada Lifelong Learning Fund that helps reduce the financial barriers to continuing training for adults by co-funding investments by both employers and individuals in skills development;

2. Transformation of the government's employment centres into hubs of hands-on career and training guidance not only for the unemployed but also for working adults and employers who need to navigate the labour market disruption caused by technological change.

Our Aspiration for Canada

The road ahead is hard. Success demands bold, swift action and focused, agile execution over many years. But if we follow the path outlined here together, the tangible goal this Council put forward for Canada almost two years ago—to boost the median household's annual pre-tax income by $15,000 above current projections by 2030—is, we believe, eminently achievable. The Canada Infrastructure Bank, for example, has the potential of delivering $200 billion worth of productivity-enhancing projects over 10 years. We expect these investments alone would boost annual GDP by $40-50 billion and deliver $1,350-$1,700 of the additional increase in median annual pre-tax household income that we have targeted.

Achieving the overall target will require progress across the full suite of our recommendations. And success in the end will be measured, not by numbers alone, but through tangible improvements in the lives of individual Canadians. The artificial intelligence entrepreneur who scales up her 200-person, Montreal start-up with investment from the Canadian Business Growth Fund; the recent immigrant in Waterloo working as a sales representative at a medical devices company that exports to Asian markets expanded by free trade agreements; the former long-haul truck driver who has used a Lifelong Learning Fund grant to become a technician at an autonomous vehicle maintenance centre—these will be the true markers of meaningful progress by 2030.

These stories, and thousands of others like them, will provide the forward-looking narrative for a diverse, ambitious nation that, in little more than a decade, can transform itself into a thriving model of the new knowledge economy, one with a highly skilled and adaptive workforce, a magnet for international talent, a beacon of open trade and investment with unrivaled infrastructure, whose tax and regulatory systems are fit for an era of technological disruption. Above all, by making sustainable and inclusive growth our bedrock, we will leave a legacy for generations to come. ■

[1] Note that throughout the report, we use "the government" to refer to the Government of Canada.

[2] Canada has the second-highest rate of tertiary education attainment among OECD nations and its human capital rates highly on the United Nations Human Development Index. Canada also has high per capita annual production of resources, according to the U.S. Energy Information Administration.

[3] Rita Gunther McGrath, "The pace of Technology Change is Speeding Up," *Harvard Business Review*, November 25, 2013.

[4] Harald Bauer, Mark Patel, and Jan Veira, "The Internet of Things: Sizing Up The Opportunity," McKinsey Insights, December 2014, mckinsey.com.

[5] "Global Top 100 Companies in the World by Market Capitalization," *PwC IPO Centre*, March 31, 2017, p. 35. The five are: Apple, Alphabet, Microsoft, Facebook, and Tencent Holdings. Amazon and Alibaba are also among the world's 20 largest, but the report's authors consider them to be to be consumer services companies, not technology ones.

[6] Michael Chui, James Manyika, Mehdi Miremadi, "Where machines could replace humans—and where they can't (yet)," *McKinsey Quarterly*, July 2016. mckinsey.com. Other analysts, including the World Bank, suggest the potential for automation is even higher.

[7] Jaclyn Tersigni, "Big opportunities in big data," *The Star*, March 13, 2017, thestar.com.

[8] Homi Kharas, "The unprecedented expansion of the global middle class," *The Brookings Institution*, February 28, 2017, brookings.edu.

[9] Calculations based on World Bank data available at data.worldbank.org.

[10] Those six economies include China, India, Indonesia, Brazil, Russia, and Mexico; measured by GDP at PPP. "The Long View: How Will the Global Economic Order Change by 2050?" *PwC*, February 2017, pwc.com.

[11] Richard Dobbs, James Manyika, and Jonathan Woetzel, *No Ordinary Disruption: The Four Global Forces Breaking All the Trends* (McKinsey & Company, 2015).

[12] Ibid.

[13] Ibid.

[14] Richard Dobbs, James Manyika, Jonathan Woetzel, et al, "Global Growth: Can Productivity Save the Day in an Aging World?" *McKinsey Global Institute*, January 2015.

[15] "How 21st-Century Longevity Can Create Markets and Drive Economic Growth," *World Economic Forum*, October 5, 2015, weforum.org.

[16] "Dependency ratio," *Statistics Canada*, Accessed on November 16, 2017, statcan.gc.ca.

[17] At 1.1 percent, our productivity growth lags that of other advanced economies such as the United States, Germany, and the United Kingdom.

[18] According to analysis done based on The Conference Board's "Total Economy Database," the United Nations Department of Economic and Social Affairs Population Division, and the International Labour Organization, Canada faces a 53 percent drop in GDP growth from the past 50 years to the next 50 years in a base case scenario—a larger decline than Germany, South Korea, Japan, Australia, Italy, the United States, France, and the United Kingdom.

[19] The forecast assumes 0.8 percent annual growth in median pre-tax household income. The target annual growth rate is 1.8 percent.