




Bennett Jones

Economic Outlook Playing the Long Game

June 2023

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It's a time for hard decisions. Despite our privileged geographical position, spectacular natural bounty and educated population, Canada lags many if not most of the OECD countries in capital investment and productivity growth. Good intentions have morphed into rigid ideologies that severely inhibit the pursuit of excellence and the national interest, while the ever expanding focus on redistribution has evolved from a noble pursuit of commonwealth to challenge the wealth creation required if Canada is to remain a first world economy. The intellectual and functional sources of the problem are many. Courageous and honest talk by business, social and public leaders is required to remind Canadians how we obtained our enviable status, and how we can easily lose it.

Hugh MacKinnon
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The analysis in this Economic Outlook is based on published data available as of June 6, 2023.



Executive Summary

For the last three years, governments, businesses and workers have confronted a series of shocks and disruptions that have tested their agility and resilience. The pandemic, the war in Ukraine, supply chain constraints, swings in commodity prices, and higher inflation and interest rates, have demanded swift responses and adjustment. There are aftershocks, uncertainty and risk, and still a need to adapt. Navigating turbulent times remains a key function of policy and business planning.

Yet, given forces shaping the world of tomorrow, it matters even more how governments and businesses plan to invest, innovate and create the conditions for sustainable growth over the longer term.

This *Economic Outlook* entitled *Playing the Long Game* reviews recent developments and short-term prospects, sets out a baseline scenario and risks to assist business planning and describes some of the context for the longer term and key tasks ahead for Canadian governments and firms.

In the short term, the priority is to re-balance demand and supply and to get back on a path of non-inflationary growth. Longer term, in a fragmented world, Canada has to up its game, raise the proportion of national income that it devotes to investment relative to consumption and equip its workers with more and better skills and capital to succeed in domestic and global markets.

A Slowing of the Global Economy

Price inflation has come down from the peaks of mid-2022, but it remains high. Hikes in the policy interest rates of central banks have

helped to moderate demand and rates need to be high for longer. Inflation will not get back to target quickly.

Consequently, global growth will be weak in 2023, recover some momentum later in 2024 and only by 2025 be at roughly potential for the medium term, with low inflation. We use as backdrop the latest World Economic Outlook of the International Monetary Fund (IMF) to the end of 2024. The IMF projects global real gross domestic product (GDP) growth of 2.8% in 2023 (down from 3.4% in 2022) and 3% in 2024.

The only major economy diverging from others is China. It is rebounding in 2023 after abandoning its zero-COVID policy: the IMF projects growth of 5.2% in 2023 (up from 3% in 2022) and 4.5% in 2024. Recent developments draw into question the strength of the recovery in China, but authorities no doubt will aim to achieve their growth target for 2023 of 5%. India is notable because of the pace of its projected expansion: 5.9% in 2023 and 6.5% in 2024. China and India together are likely to account for roughly one half of global growth in 2023; Asia, as much as 70%.

There are risks of recession and disorderly adjustment. Inflation may be “sticky” and this could stretch out the path of return to non-inflationary growth to beyond 2025. While U.S. and European authorities acted quickly in March 2023 to resolve failing banks, there is financial stress given record levels of public and private debt. Intensification of the war in Ukraine, or rising tension over Taiwan, could push up commodity prices, depress confidence and unsettle capital markets.

A More Complex and Fragmented Global Environment

There will be lasting impacts of the recent shocks, at the same time as a need to adjust to structural change driven by demography, climate change and technology. After decades of falling real interest rates because of chronic global excess savings, there is reason to expect that even when inflation is back at target, nominal and real interest rates will be higher than pre-COVID. Growth potential will be lower. The IMF has the lowest global growth projection for the next five years since 1990.

Globalization as pursued over the last decades has peaked, and markets are becoming more fragmented. In a period of intense geopolitical rivalry, trade and investment are influenced by the joint pursuits of national security and economic security. The United States and the G7 insist they are not “de-coupling” from China, rather “de-risking” activity and supply chains, but the consequences in industries from critical minerals to semi-conductors are profound. The World Trade Organization (WTO) is becoming less effectual as trade rules are determined by an expanding universe of bilateral and plurilateral deals, and by the unilateral measures of large economies. Meanwhile, the search for competitive advantage in such strategic industries as clean tech or electric vehicles (EV) is giving free rein to industrial policies and subsidy wars that can also have protectionist motives or effects. The digital space, its standards and rules, is also a battleground for strategic and economic advantage.

There are opportunities still to grow markets. For Canadian businesses, there is advantage procured by under-utilized trade agreements with the United States and Mexico, the European Union (EU) and with some of the strongest and most dynamic Asian economies. For businesses,

de-risking means building markets and supply chains that are resilient in a fragmented world, while responding to rising environmental, social and governance (ESG) obligations and market expectations.

The U.S. and Canadian Economies to the End of 2025—Cooling Down and Converging to Potential

Given global circumstances, as well as domestic uncertainty and risk, there is a range of plausible outcomes for the U.S. and Canadian economies over the next 24 to 30 months.

The starting point is output above potential, stubbornly high core inflation and tight labour markets. Despite the sharp interest rate hikes initiated by both central banks in March 2022, demand has proven resilient.

We judge that policy interest rates (at 5.25%, upper limit, for the Fed funds rate and 4.75% for the Bank of Canada rate, as of June 7, 2023) are at, or near, their peaks. We do not expect any loosening of monetary policy in 2023. Policy rates would come down only gradually in 2024 and 2025.

The high interest rates will cool down the two economies in the quarters ahead. We project that over the period of the second quarter of 2023 to Q2 2024, real GDP will grow at annualized rates of 0.8% in the United States and 1% in Canada. With inflation on a downward track, and with cuts in interest rates, growth would then firm up, to an annualized average of 1.9% in the United States and 2.5% in Canada to the end of 2025. Stronger immigration flows in Canada contribute to more rapid growth than in the United States by boosting both potential output and aggregate demand.

Getting inflation back to target—for Canada to the middle of the 1% to 3% band—will not be



an easy task. Services price inflation is persistent and it could be accentuated by wage pressure. Even in our baseline scenario, headline inflation will be slightly above 2% in Canada by the end of 2025.

By this time, we expect policy interest rates to be about neutral, neither stimulative nor restrictive: in a range of 3% to 3.25% in the United States; and 2.75% to 3% in Canada. Ten-year government bond rates would be about 3.25% to 3.50% in the United States and 3.0% to 3.25% in Canada. These interest rates would be representative of averages to expect over the business cycle in a post-COVID world.

There are risks to this scenario. If global developments cause new stress, or if inflation is stickier than expected, there could be a recession, but more likely a prolonged period of low growth and adjustment. The recent agreement on the debt ceiling in the United States clears some of the skies.

The Longer-Term Lens: Skills ...

While the parameters that determine short-term developments can be volatile, factors such as population aging, climate change and technology, and in particular digitalization, are exerting more predictable and durable forces on the economy. Governments and firms have to plan accordingly.

With the help of simulations to 2032, we dispel one recurrent concern: that our problem will be a shortage of workers. Granted, over the past years, the demand for labour from employers has grown faster than the supply of labour, such that labour markets have tightened. This is manifest in a historically low rate of unemployment and a high job vacancy rate. However, we estimate that over the next decade, taking into account demographic trends and planned immigration, the supply of labour will grow fast enough to meet demand. This will

require efforts, for example to retain more older workers in the labour force, but our challenge is not one of aggregate supply.

The task is equipping our workers, including immigrants, with the right skills and the right capital to ensure that we meet the *qualitative* needs of employers, and that we raise productivity levels. On skills, there is cause for concern that shifts in the inflows of economic immigrants by program stream over the past years has coincided with a decline in the level of skills. While it is sensible that immigration policy help address current labour shortages, this cannot obscure the fact that unless economic immigration brings high-skilled workers, it will not help raise income per capita.

... and Investment, Innovation and Productivity Growth

Canada under-invests in tangible and intangible capital. Non-residential investment, as a proportion of GDP or per worker, is below the historical average. Compared with the United States and the average of Organization for Economic Cooperation and Development (OECD) member countries, our investment gap is large and it has widened over the past years.

In the last quarters, there has been some pick-up in investment in structures (e.g., non-residential construction), but for machinery and equipment and intellectual property products, investment has been sluggish or even declining. The recovery from COVID has been job rich, but productivity poor.

While short-term conditions may not support a boost of investment over the next few quarters, governments and businesses should be focused now on raising investment as a share of our national income.

In Budget 2023, the Government of Canada doubled down on an industrial policy for a

clean economy by introducing or expanding tax credits, subsidies and financing vehicles for investment in EV supply chains, clean electricity, hydrogen, carbon capture, utilization and storage, clean fuels, and clean tech and manufacturing. Measures responded in part to the U.S. *Inflation Reduction Act* and aimed not only to accelerate the energy transition, but also to prevent an outflow of capital.

The federal measures are material and they may move the needle on investment, but there is no certainty. There is market and regulatory risk. Governments and businesses have to align on a plan for execution.

Moreover, investments in the clean economy will have to be advanced on a path that will maximize value earned by Canada through the energy transition. This means addressing energy security for Canada and its economic partners, and realizing value from our supply of hydrocarbons. It also means generating value from our innovation, intellectual property and services in the global energy industry. We can monetize our expertise beyond producing and selling energy products.

Even if successful, the energy transition will not resolve our investment and productivity gaps. There needs to be an economy-wide effort and this cannot be engineered by multiplying tax credits and subsidies.

Governments—federal and provincial—have to create a framework that will enable competition and market incentives to drive investment and innovation. Governments have to consult, engage with businesses, be responsive to global forces, and challenge vested interests and policies that can hold back competition and breed complacency.

Rules and tax structures need to be adapted to a world that is rapidly expanding the potential

and applications of digitalization, where a rising share of economic value is generated by intangible assets.

Some initiatives are underway. They need to be pursued with vigor and a sense of urgency: a review of our competition policy, a modernization of privacy and data management legislation and steps to accelerate digitalization in the financial services industry, including modernization of payments and open banking. Markets demand agile regulation and collaboration with global partners.

It is time to take a hard look at the structure of the tax system. We need more investment and proportionately less consumption. While tax reform is a perilous political exercise at the best of times, Canada will benefit from an informed discussion of how tax is affecting our economy.

Our internal market is a regulatory morass. Provinces are in the driver's seat of the Canadian Free Trade Agreement and they should demonstrate far greater ambition in breaking down long-held, parochial barriers.

The Opportunity for Businesses

Our world is changing and it is uncertain. With still high inflation and interest rates, the prospect for the short term is modest growth. Businesses have to continue to assess and manage risks carefully.

Capitalizing on change requires that businesses invest a larger share of their retained earnings and pursue with resolve their place in the energy transition and the digitalization of the economy, mindful of a new, more fragmented world.

Critically, businesses have to engage with governments on executing investment strategies and on helping to create a policy framework for skills development, competition, investment, innovation and productivity growth.

I. The Global Economy:

Coming Out of COVID and Still Adjusting

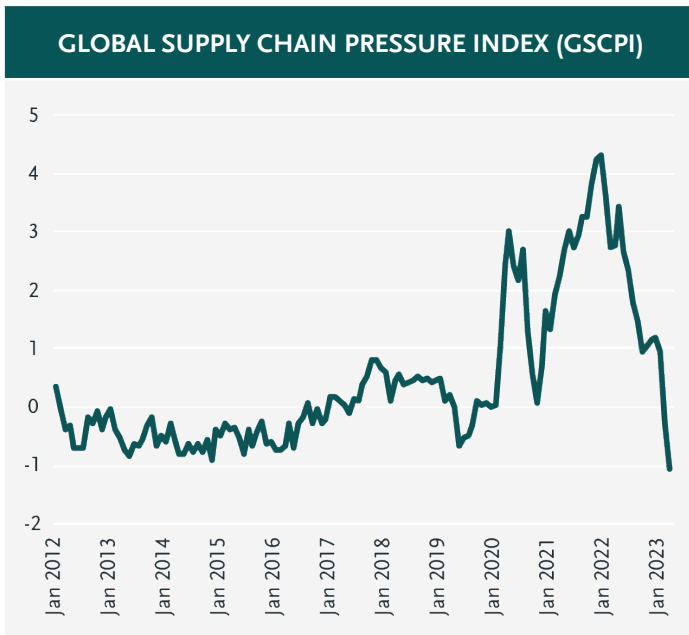
While the pandemic is now largely in the rear-view mirror, and while the direct economic impacts of the war in Ukraine are partly mitigated, the world economy is still hampered by the aftershocks, and the path of return to stable growth is encumbered by uncertainty and risks. Inflation has come down from the peaks in 2022, but it is stubbornly high. The hikes in the policy interest rates of central banks have begun to moderate demand, but rates need to stay high to get inflation back to target. There is excess demand and labour markets are tight. Global growth will be weak in 2023, recover some momentum later in 2024, and only by 2025 be at roughly potential for the medium term, with low inflation. There are risks of recession—and disorderly adjustment—along the way. Inflation may be “sticky”, and this would mean a longer period of high interest rates and adjustment. While authorities acted quickly in March 2023 to resolve failing banks, there is vulnerability to new episodes of financial stress given record levels of public and private debt. Geopolitics, including the war in Ukraine, tension in the U.S.-China relationship and the fragmentation of the trade and investment environment, weigh on economic prospects for both the short and the longer term. Even under a baseline scenario, there will be lasting impacts of the recent shocks, at the same time as a need to adjust to structural change. Looking to 2025 and beyond, real interest rates are likely to be higher and growth potential lower than pre-COVID.

Where We Are at Mid-Point in 2023

Global inflationary pressures that emerged in late 2021 in markets for goods, and in particular commodities, have receded with adjustments in supply chains and trade channels. Supply bottlenecks have eased, transportation costs and delivery times have normalized, and hence global supply chain disruptions no longer weigh inordinately on producer costs. For example, the Global Supply Chain Pressure Index of the Federal Reserve Bank of New York is roughly back to pre-COVID levels (Chart 1.1). The spike in commodity prices, including food and energy, provoked by the war in Ukraine and sanctions against Russia, has also largely reversed, although prices remain high compared with pre-COVID, as illustrated by the evolution of the Commodity Price Index of the Bank of Canada (Chart 1.2). In part with the benefit of a mild winter, Europe has adjusted remarkably to the reduction in imports of natural gas from Russia, managing demand, diversifying supply and building inventory. In December 2022, the EU banned seaborne oil imports from Russia, and with G7 partners it imposed a price cap of US\$60 per barrel on Russian oil. Impacts on global markets have been contained as Russia redirected its oil to other buyers, in particular China and India. Adjustment has also taken place for other commodities. Globally, participants in international trade are focused on de-risking supply chains.



Chart 1.1:



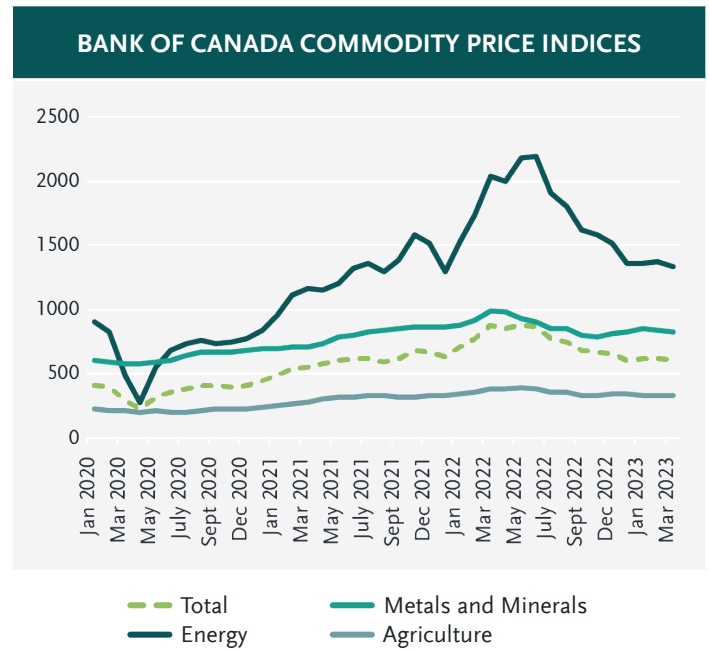
Source: Federal Reserve Bank of New York.

The sharp hikes in interest rates initiated by major central banks last year have begun to moderate demand, particularly for housing and interest-sensitive goods, as well as for investment, helping to bring headline inflation down from its peaks. All of the major economies are projected to experience a slowdown in 2023, with the exception of China that is recovering from the effects of its zero-COVID policy abandoned in December 2022.

Yet, the global economy is still in excess demand, headline inflation remains above the targets of central banks and core inflation is persistent.

Aggregate demand to date has proven resilient, with some rotation of consumption back to services after a displacement toward goods during COVID. The reduction achieved in headline inflation to date reflects in large measure the lower energy prices. Inflation for other consumer items, including food and services, is slower to come down.

Chart 1.2:



Source: Bank of Canada.

Labour markets are exceptionally tight.

Unemployment remains low and job vacancies high as economies operate above capacity. Correspondingly, labour is in a better position to negotiate wage increases to recover loss of purchasing power or to improve real earnings. While there is no evidence of a wage-price spiral, if sustained, high wage settlements could make inflation stickier. Likewise, given supply gaps, producers have been able not only to pass on higher costs to consumers, but also to realize higher margins.

Given these pressures, monetary and fiscal policies in the short run need to be restrictive and help bring demand into line with constrained supply.

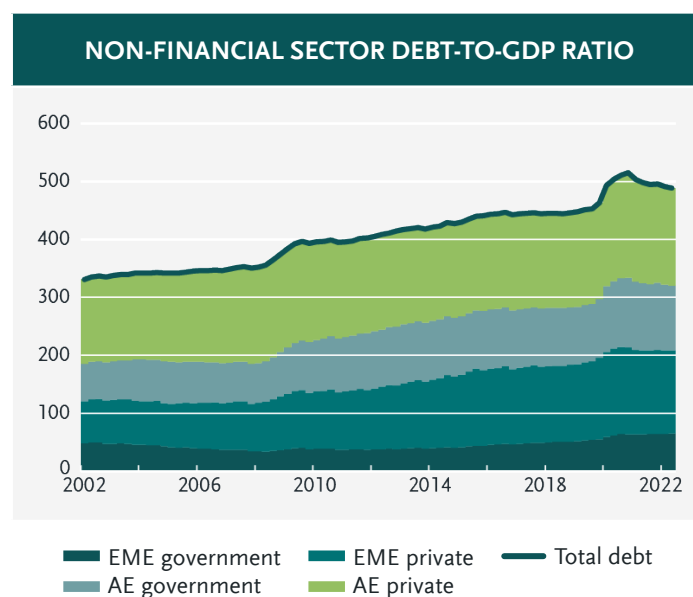
For central banks, a key related preoccupation is to ensure that longer-term inflation expectations remain anchored.

Recent failures of Credit Suisse and some mid-sized U.S. regional banks have drawn attention to the difficulty of the financial system in adjusting to the very rapid hikes in central bank policy rates. While the individual failures can be largely attributed to lapses in risk management and regulatory supervision, all credit markets are undergoing adjustment. Swift interventions by authorities contained the risk of bank failure contagion, but mark-to-market losses of both bank and non-bank lenders still have to be managed while central bank policy rates remain high. As adjustment takes place, markets may experience reduced liquidity and credit availability that can depress borrowing and activity. If orderly, the restraint of markets can work in the same direction as policy. However, disorderly adjustment can pose more severe risks for the economy.

Policy interest rates may be near or at their peak, but major central banks, including the European Central Bank (ECB) and the Federal Reserve (the Fed), have signaled clearly that they will keep them high as long as necessary to get inflation back to target. Given persistently high core inflation and the tightness of labour markets, absent other shocks, it is unlikely that policy rates will be cut in 2023. The ECB likely will have to raise rates further before hitting pause. In 2024, the reduction of policy interest rates would be gradual and conditional on evidence that inflation is on a path to return to target.

The budgetary deficits of governments are below the elevated levels during the pandemic, but public debt is large and, given high interest rates, there is a higher cost of servicing this debt. Governments have largely unwound exceptional fiscal supports for households and businesses deployed during the pandemic, and with the economic recovery in 2021 and 2022, and then higher inflation, they have had strong revenue growth. Thus, deficits were curtailed. This descending trajectory is being reversed in 2023 with lower revenue growth and higher costs of servicing debt. World public debt is higher and growing faster than pre-pandemic, with higher interest rates. This limits the ability of governments to borrow to finance needed investment and to pay for programs to support vulnerable households. Private debt is also at elevated levels (Chart 1.3).

Chart 1.3:



Source: OECD Economic Outlook, Interim Report, March 2023.



The Short-Term Prospects—Low Growth in 2023 and 2024

Under a baseline scenario, after decelerating in 2023, the global economy is expected to regain strength slowly in 2024, with growth approaching potential and inflation nearing central bank targets by the end of 2024. World real GDP is projected by the IMF to grow by 2.8% in 2023, compared with 3.4% in 2022 and then to expand by 3% in 2024 (Table 1).

Table 1:

BASELINE SCENARIO FOR AVERAGE ANNUAL REAL GDP GROWTH			
	%		
	2022	2023	2024
WORLD	3.4	2.8	3.0
ADVANCED ECONOMIES	2.7	1.3	1.4
Eurozone	3.5	0.8	1.4
United Kingdom	4.0	0.4	1.0
Japan	1.1	1.3	1.0
EMERGING AND DEVELOPING ECONOMIES	4.0	3.9	4.2
China	3.0	5.2	4.5
India	6.8	5.9	6.3

Source: International Monetary Fund, World Economic Outlook, April 2023.

* For the United Kingdom, the projection is from the IMF Staff Concluding Statement of the 2023 Article IV Mission, May 23, 2023.

In advanced economies, projected year-over-year growth is roughly halved, from 2.7% in 2022 to 1.3% in 2023, with a modest uptick in 2024. Some of the advanced economies may undergo a technical recession. Indeed, Germany had slightly negative growth in both the last quarter of 2022 and the first quarter of 2023. However, the baseline scenario is one of a “soft landing”—no significant recession. The large economy projected by the IMF to realize the worst performance over 2023 and 2024 is the

United Kingdom. While there are many causes for this underperformance, it is becoming apparent that Brexit has represented a significant cost, and that it is unlikely to help the United Kingdom address its long-dated, structural challenges.

Emerging and developing economies are projected to grow at roughly 4% through the period; China and India will contribute about one half of world growth. China is atypical among large economies. It is rebounding in 2023, after its second-worst growth performance in decades in 2022, because of the abandonment in December 2022 of its zero-COVID policy. Real GDP in China is projected to grow by slightly more than 5% this year. Growth would moderate to about 4.5% in 2024. India, now the world’s most populous country, is also one of the fastest growing economies. The IMF projects GDP growth in India of 5.9% in 2023 and 6.3% in 2024.

The volume of world trade is projected to evolve roughly in line with real output. There are many geopolitical and other structural forces affecting the patterns and channels of international trade and investment, as discussed in Chapter 4. Globalization has peaked and trade is no longer pulling the global economy in the same way as in the early 2000s. Based on roughly similar projections for global output as the IMF, the WTO forecasts growth in the volume of world trade of goods of 1.7% in 2023, compared with 2.7 per cent in 2022. For 2024, the WTO projects trade volume growth of 3.2%, while underscoring high uncertainty and risks.¹

With the moderation of demand, inflation is projected to come down gradually; for advanced economies, on average, inflation should be getting close to target by the end of 2024 and the unemployment rate should move up from current historical lows. Headline inflation in the major economies has been trending down since mid-2022, and this will continue at a pace that will depend in part on the success of central banks in reining in demand. The IMF projects that in

advanced economies, annual inflation will be 2.2% by the fourth quarter of 2024; many central banks would achieve their target only in 2025. Indeed, given resilience of demand and tightness in labour markets to date, reaching the target of 2% will prove considerably more difficult than simply getting inflation on a downward trajectory. The IMF expects that unemployment in advanced economies will edge upward, with the average rate 0.5 percentage point higher in 2024 than in 2022.

In sum, under a baseline scenario to the end of 2024, the world economy cools down, supply and demand get into better balance and a significant recession is avoided. Real GDP per capita grows by about 1% per year in advanced economies, and by 3% per year in emerging and developing economies.

Global Risks—Still on the Downside

The outturn for the global economy could prove more favourable than under the baseline if demand and prices adjust faster and central banks are able to ease monetary conditions earlier than expected. However, downside risks are prominent. Global risks largely shape the risks to the outlook for the United States and Canada that are elaborated in Chapter 2. They include:

- **The risk that demand will prove more resilient and inflation of prices and wages more sticky than under the baseline.** This would require that the major central banks keep policy rates higher for longer, not only prolonging adjustment in 2024 and even 2025, but also exacerbating financial stability risks and potentially causing wider disruptions.
- **The risk that the war in Ukraine intensifies or that other geopolitical conflicts further destabilize commodity markets, reignite inflationary pressure, and depress confidence, investment and spending.** More localized or sectoral disruptions to supply chains from a diversity of sources—for example, a shortage

of semi-conductors because of geopolitical events—could also create added external pressure on activity and prices.

- **The risk that a failure or event in any corner of global capital markets causes disruptions in the flow of capital and a re-pricing of risk, with effects amplified by the high level of public and private debt.** Financial crises are always feared but rarely forecasted because they can originate from a number of sources, some known, some unsuspected. The recent deal on the debt ceiling in the United State diminishes some of the immediate risks, although the U.S. fiscal track—a long series of projected, large deficits and thus rising debt—remains a matter of concern for financial stability. Turbulence in March 2023 placed the spotlight on vulnerabilities in U.S. regional banks as well as in some larger global institutions. Non-banks (e.g., mortgage corporations) that have concentrated asset portfolios, and that operate under lighter regulation than banks, are a similar source of risk. A cascading of debt defaults by emerging or developing countries could also ripple through global debt markets and raise financing costs more widely. Central banks would respond to such crises by supplying liquidity to the markets, but this could come at the expense of their efforts to rein in inflation. Growth could turn out to be weaker—and inflation higher—with a longer period of adjustment, than under the baseline.

Overall, while the baseline scenario for the global economy is one of modest growth to the end of 2024, there remains a risk of recession in some of the large economies that could be accentuated by perturbation in financial markets. For example, the IMF has modeled a scenario of severe financial stress to which it ascribes a probability of 15%. Under this scenario, world output in 2023 could be 1.8% below the baseline and there would be no growth in real per capita income to the end of



2024. Such a scenario would prolong the process of adjustment and delay the return of major economies to potential growth, with low inflation, for the medium term.

Peering Into the Medium Term—an Unlikely Return to Pre-COVID Conditions

Even with a soft landing, the world economy in 2025 will not go back to where it was in the years just before 2020, as structural forces exerted on the global economy are felt more acutely.

One of the parameters to shape the medium term—the real rate of interest at which level the economy is neither stimulated nor restricted—may turn out to be higher than pre-COVID, with the implication that borrowing costs for governments and businesses will be higher. Economists call this parameter “the natural rate of interest”, or “ r^* ”. r^* is a real (after inflation) rate, and it is neither an official nor a posted rate. It is estimated by economists, in particular by central banks, as the rate that would balance savings with the demand for investment in the economy. It is a gauge for central banks in determining the nominal “neutral interest rate” that, taking into account inflation, is neither stimulative nor restrictive. The policy interest rate, in turn, is set by central banks around this neutral rate as a key determinant of the stance of monetary policy.

After four decades of sustained reduction in the natural rate of interest in advanced economies, explained by a chronic surplus of global savings over the demand for investment, there are reasons to expect that the next decade will not be a continuation of this trend. There is considerable uncertainty and complexity in estimating r^* . In the period immediately preceding the pandemic, while specific circumstances were different across economies, common structural trends such as population ageing and diminishing productivity growth pulled r^* down to near or even slightly below zero. Since late 2021, the resurgence of inflation and

then increases in the policy interest rates of central banks have caused both nominal and real market interest rates to rise markedly. Policy and market rates will come down when there is evidence that inflation is under control, but it is uncertain where rates may ultimately settle. It is an open question—intensely debated among economists—whether r^* will be higher in a post-pandemic world. Some, like the IMF, on balance do not think so.² Others, like Lawrence Summers, find that a number of factors may contribute to push r^* up.³ Our own judgement, like that of Summers, is that r^* will be modestly higher, and that interest rates therefore will not return to the historically low levels of 2010 to 2019.

Factors that, on balance, may be expected to keep upward pressure on interest rates in 2025 and beyond in advanced economies, even once inflation is back to target, include the following.

- **Demography:** Demography, including population aging but also trends that may shape participation in the labour market, is an important determinant of savings in the economy. Over the past decades, aging has been associated with rising levels of savings, but we now approach years when baby boomers may be expected to draw on their savings in retirement and older age. Moreover, aging is exerting rising pressure on costs in the health care system and therefore on public expenditures that in turn bear on government savings or dissavings (deficits).
- **Climate and the energy transition:** The energy transition will require immense investments, sustained over a period of years. By way of illustration, the International Energy Agency under its road map to net-zero, estimates a need to triple investments in energy and infrastructure by 2030 to US\$5 trillion per year.⁴ Importantly, the shift away from hydrocarbons will require a replacement of capital across industries, reminiscent of the restructuring that took place

in the 1970s with the sharp hikes in energy prices. Finally, response to, and prevention against, more severe and more frequent climate events will entail added investment. Much of this investment will be deployed toward long-lived assets and financed by governments and businesses over long periods. The net impact on economic growth will be mitigated by the more rapid obsolescence of capital now in place.

- **Geoeconomic fragmentation:** Chapter 4 discusses ongoing geopolitical and other tensions in the global economy likely to result in more fragmented markets for goods and services, and also more fragmented capital markets. This can affect savings and investment in advanced economies in different ways. There may be lesser (foreign) savings to finance more (domestic) investment that is likely to be less productive than in a more open world. On balance, we think this will put upward pressure on both prices and real interest rates.
- **Debt:** Public and private debts accumulated globally in periods of low interest rates are now more expensive to service. If r^* remains below the real rate of growth of the economy, debt as a share of GDP may not be rising, but if there are lesser savings, or if there is lesser confidence in the capacity of borrowers to service their debt, interest rates will still be higher. For governments which will be facing a range of pressures to spend and to invest, higher interest rates will make fiscal sustainability harder to achieve.

Other factors, like corporate concentration and the distribution of income, as well as technology, will also have an impact on real interest rates.

Corporate concentration can raise profit levels and thus corporate savings, while also diminishing the incentive to invest because of lesser competitive

pressure. More unequal distribution of personal income, for example due to the impact of technological change on the labour market, could reduce consumption and increase the household savings rate. Both factors could mitigate the upward pressure on real interest rates. The impact of technology is complex. For example, artificial intelligence (AI) could yield a burst of productivity growth in the services sector, in particular, while also contributing to a “dematerialization” of the economy and a shift of activity to services from the higher productivity goods sector. The net effect is uncertain.

On balance, for 2025 onward, we expect higher interest rates than pre-pandemic. The Bank of Canada estimates that r^* for Canada is in a range of 0 to 1. We would hold that while it would have been at the lower end of that range in the period of 2010 to 2019, it may now be at the higher end. When inflation is back to target at 2%, this would imply an average nominal rate of roughly 3% for both short and long-term Government of Canada debt over the course of the business cycle after 2025.

With or without an uptick in real interest rates, the rate of global economic growth over the medium term is likely to be modest in historical terms. Despite rapid advances in technology and digitalization, there is no evidence yet of an emerging boost of productivity growth. China is slowing down because of the normal process of convergence for developing economies; it will no longer pull the global economy as it did in prior decades, nor assure the same growth of supply of cheap goods. Geoeconomic fragmentation represents a net loss. The IMF’s projected growth rate of the global economy for the period to 2028 is the lowest of its five-year projections since 1990.

II. The United States and Canada to 2025:

The Uneasy Path of Return to Non-Inflationary Growth

Against an uncertain and complex global backdrop, recent developments and prospects for the U.S. and Canadian economies draw out the importance of the fight against inflation in shaping short-term outcomes and creating conditions for a return to sustainable growth.

Under a baseline scenario, we anticipate a period of very modest growth on average until mid-2024, followed by sustained growth at or above potential in the two economies, as adjustment to high policy interest rates is largely absorbed and as the global economy strengthens.

Inflation is projected to be on a steady downward track, although not quite reaching the 2% target by late 2025. While there will be losses of jobs, we expect broadly resilient labour markets to contain the impacts of the slowdown for workers.

There is a range of global, U.S., and Canadian risks to this scenario that could prolong the period of adjustment and low growth, or even cause a recession.

Beyond the short term, as structural forces constrain global supply, central banks will likely be required to maintain policy rates higher than for most of the past 20 years, while governments will probably need to raise program spending and investment as a share of GDP.

Recent Developments

In both the United States and Canada, headline Consumer Price Inflation (CPI), year-on-year, has continued in 2023 a decline relative to the peaks of June 2022; core inflation, excluding food and energy, has also diminished, but to a much lesser extent. For Canada, the headline rate, that had dropped from 8.1% to 6.3% between June 2022 and December 2022, fell to 4.4% by April 2023, with lower gasoline prices explaining one quarter of the decline to date in 2023 (Table 2.1). The drop in the headline rate would have been even sharper if not for persistent inflation in the price of groceries that remains elevated, at 9.1% in April 2023. Core inflation in Canada, that had held firm in the second half of 2022 at about 5.3%, has come down in 2023; it was 4.4% in April 2023. The inflation trend has been broadly similar in the United States where the headline rate dropped from 9.1% in June 2022, to 6.5% in December 2022 and to 4.9% in April 2023, with more persistent core inflation. The greater inertia of core inflation in the two economies is explained by the stickiness of services price inflation. In April 2023, services price inflation was 4.8% in Canada and 6.8% in the United States.



Table 2.1:

CONSUMER PRICE INFLATION IN THE UNITED STATES AND CANADA					
12-MONTH %	JUN 2022	SEPT 2022	DEC 2022	MAR 2023	APR 2023
UNITED STATES:					
CPI - all items	9.1	8.2	6.5	4.9	4.9
CPI - excl. food and energy	5.9	6.6	5.7	5.6	5.5
CPI - services	6.2	7.4	7.5	7.3	6.8
CANADA:					
CPI - all items	8.1	6.9	6.3	4.3	4.4
CPI - excl. food and energy	5.3	5.4	5.3	4.5	4.4
CPI - services	5.2	5.6	5.6	5.1	4.8
3-MONTH S.A.A.R. %					
UNITED STATES:					
CPI - all items	10.5	2.5	3.3	3.8	3.2
CPI - excl. food and energy	7.1	6.0	4.3	5.1	5.1
CANADA:					
CPI - all items	10.4	2.4	3.4	2.6	3.9
CPI - excl. food and energy	7.1	4.9	3.7	3.4	4.2

Sources: U.S. Bureau of Labor Statistics; and Statistics Canada tables 18-10-0004-01 and 18-10-0006-01.

Month-to-month core inflation is persistent and it will likely diminish only slowly. The recent deceleration of year-on-year core inflation in Canada is attributable in large measure to large one-time price cuts for air transportation and cellular services in January. On a seasonally-adjusted basis, month-to-month, core inflation was steady from February 2023 to April 2023, at the same rate as in the period from September 2022 to December 2022. Hikes in shelter prices, particularly mortgage interest costs and rent, are among the factors sustaining the pressure on core inflation.

In tight labour markets, yearly increases in average hourly earnings hover around 5% in both Canada and the United States. For Canada, based on a fixed-weight measure of aggregate hourly earnings, which takes out of the calculation shifts of employment across occupations, sexes and types of work, and which better captures the underlying trend in wage rates, year-on-year increases have accelerated steadily from 3.6% in Q3 2022 to 5.1% in April 2023 (Table 2.2).

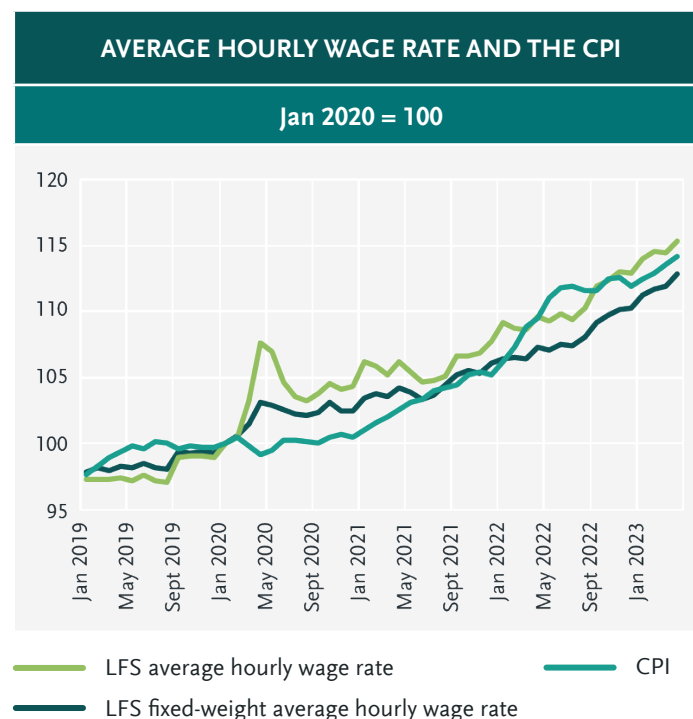
Table 2.2:

JOB VACANCIES AND HOURLY EARNINGS IN THE UNITED STATES AND CANADA					
	Q4 2019	Q3 2022	Q4 2022	Q1 2023	APR 2023
UNITED STATES:					
Job vacancies per unemployed	1.2	1.9	1.8	1.8	1.7 (Mar)
Average hourly earnings - y/y% (not s.a.)	3.2	5.1	5.2	4.4	5.1
CANADA:					
Job vacancies per unemployed	0.4	0.9	0.8	0.8	0.8 (Mar)
Average hourly earnings - y/y% (not s.a.)	2.8	4.7	5.3	5.1	5.2
Fixed-weight ave. hourly earnings - y/y%		3.6	4.2	4.9	5.1

Sources: U.S. Bureau of Labor Statistics; and Statistics Canada tables 14-10-0287-01, 14-10-0406-01 and 14-10-0426-01. The fixed-weight measure is estimated by Bennett Jones, using average 2019 employment shares for 132 categories of work based on occupations, sex and type of work (full-time vs part-time).

Since the beginning of the pandemic, wages have roughly kept pace with consumer prices. Over the period of February 2020 to October 2022, average hourly earnings in Canada grew at about the same pace as the CPI (Chart 2.2). Since then, the aggregate wage rate has grown faster than consumer prices, such that by April 2023, it was 1% higher in *real* terms than in January 2020. However, if one considers the fixed-weight measure of aggregate hourly earnings, the aggregate real wage in April 2023 was 1.2% *lower* than in January 2020. In other words, small gains in the real average hourly earnings of workers since January 2020 are explained by shifts of employment from occupations with lower-than-average wage rates, to occupations with higher-than-average wage rates.

Chart 2.1:



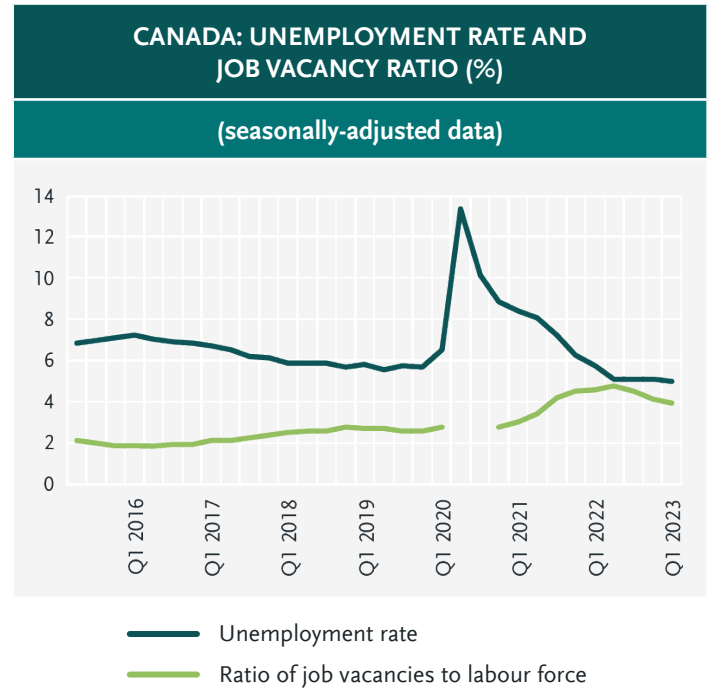
Source: Statistics Canada 14-10-0426-01, 14-10-0063-01 and 18-10-0004-01. The fixed-weight measure is estimated by Bennett Jones.



The labour market remains tight, but so far in 2023, labour supply has grown faster than labour demand (employment plus job vacancies) such that there is a measure of easing. In the first four months of 2023, the labour force grew 3.8%, seasonally adjusted at annual rates. There was a 2.6% increase in working-age population, explained by high levels of immigration and an influx of non-permanent foreign residents, as well as a modest rise in labour force participation. While employment rose 3.8% during this period, there was a fall in job vacancies, such that overall labour demand grew slower than supply. Whereas by Q2 2022, the ratio of job vacancies to the labour force almost equalled the unemployment rate, since then, and despite still a historically low unemployment rate of 5% in Q1 2023, the gap between the two measures has widened (Chart 2.2).

One notable development in the labour market in both Canada and the United States in the past quarters has been a strong growth in jobs at the same time as a loss of productivity, with the economy-wide averages hiding distinct sector-by-sector conditions. Box 2.1 discusses the divergent trends in employment and productivity growth, with sector-by-sector analysis.

Chart 2.2:



Source: Statistics Canada tables 14-10-0406-01 and 14-10-0287-01.

Box 2.1

THE MARKED DIVERGENCE OF JOBS AND LABOUR PRODUCTIVITY TRENDS SINCE Q2 2021

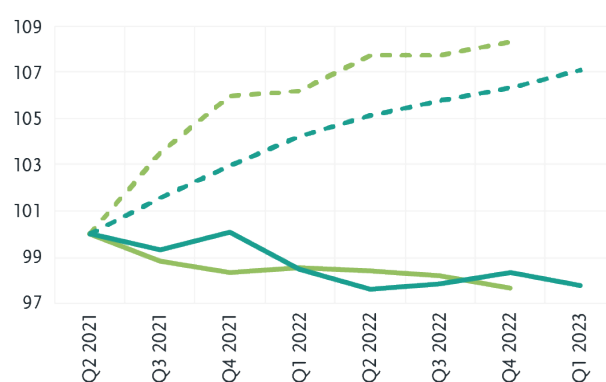
Since mid-2021, when real GDP in Canada and the United States roughly regained pre-COVID levels, there has been a divergence of jobs and labour productivity in the business sector of both countries: jobs have grown, productivity has dropped. Specifically, between Q2 2021 and Q4 2022, jobs have been growing at annualized rates of 5.5% and 4.2% in Canada and the United States, respectively, while labour productivity has been declining at rates of 1.6% and 1.1% (Chart 2.3). By comparison, over the period from Q2 2011 to Q4 2019, jobs grew at rates of 1.3% and 1.8% in Canada and the United States, respectively, and labour productivity, at rates of 0.9% and 1.0%. Since mid-2021, Canada has outpaced the United States in job creation but its productivity record has been worse; thus, the divergence has been sharper.

In Canada, the divergence between jobs and labour productivity (output per hour worked) has been particularly pronounced in some of the services sectors, as well as in construction, mining and oil and gas extraction, amounting to a form of labour hoarding: growth in jobs in these industries significantly exceeded the growth in output (Table 2.3). By contrast, in manufacturing, retail trade, transportation and warehousing, as well as in the arts, entertainment and recreation, adjustment

Chart 2.3:

LABOUR PRODUCTIVITY AND JOBS IN CANADA AND THE UNITED STATES: BUSINESS SECTOR

Indexes, Q2 2021 = 100



Canada
 — Labour productivity
 - - - Jobs
 United States
 — Labour productivity
 - - - Jobs

Sources: U.S. Bureau of Labor Statistics; and Statistics Canada table 36-10-0206-01.

has been more balanced: output growth was achieved through gains in both jobs and productivity. Finally, in accommodation and food services, productivity was roughly unchanged, and a rapid growth in output was accommodated by increases in both jobs and hours worked.



Table 2.3:

CANADA: AVERAGE ANNUALIZED GROWTH (%): Q3 2021 TO Q4 2022				
	Jobs	Average hours per job	Output per hour worked	Output
Total economy	4.9	0.0	-1.3	3.5
Business sector	5.5	-0.2	-1.6	3.6
Business sector, goods	2.5	-0.2	0.2	2.5
Business sector, services	6.5	0.0	-1.7	4.8
LABOUR HOARDING:				
Finance and insurance	4.3	-1.4	-1.5	1.4
Mining and oil and gas extraction	5.1	1.1	-2.5	3.7
Information and cultural industries	7.3	-1.0	-1.9	4.2
Real estate and rental and leasing	5.3	-0.2	-8.6	-3.9
Wholesale trade	2.1	-0.6	-0.8	0.7
Professional, scientific and technical	7.7	0.0	-0.2	7.5
Other business services	5.8	0.8	-0.9	5.7
Construction	3.5	0.3	-3.8	-0.1
BALANCED ADJUSTMENT:				
Manufacturing	2.0	-1.1	1.7	2.6
Retail trade	1.7	-0.5	1.3	2.5
Transportation and warehousing	3.4	0.1	6.8	10.5
Arts, entertainment and recreation	25.6	1.4	15.2	46.7
BOTH JOBS AND AVERAGE HOURS ARE KEY:				
Accommodation and food services	22.3	5.3	0.4	29.3

Source: Statistics Canada table 36-10-0207-01 and 36-10-0206-01.

In aggregate, the high growth of jobs relative to output over the past quarters seems consistent with firms exhibiting a precautionary demand for workers in a period of labour market tightness.

Firms in a number of industries appear to have been ready to “hoard” workers, and to tolerate a decline in productivity, probably because they have expected a robust expansion of demand and because they have estimated a capacity to raise their prices to offset the increase in their unit labour costs (which has been considerable given also the growth in wage rates). In fact, the operating profit margin of non-financial industries, even after excluding mining, oil and gas, and petroleum manufacturing from the total, remained firm over the period of Q3 2021 to Q1 2023.

To initiate a sustained recovery in labour productivity growth will require a higher level of investment per worker, which is unlikely in the next year.

In Canada, real business non-residential investment per employed worker did not grow at all between Q2 2021 and Q1 2023. The cooling of the economy and high interest rates are likely to hold back investment in the next quarters. Meanwhile, hiring will slow down, but given an unusually high level of job vacancies, there will not necessarily be a large loss of jobs. Thus, with still deficient investment over the coming year, and resilient employment, a sustained recovery in productivity growth may not start before mid-2024.

Given persistent pressures on prices, the Federal Reserve and the Bank of Canada have continued in the past months to tighten monetary conditions, while tapering the size of their policy rate hikes, starting last December in the United States and last September in Canada.

In the United States, after four consecutive hikes of 75 basis points between June 2022 and November 2022, the policy rate was raised by 50 basis points in December 2022, and by only 25 basis points each time in February, March and May 2023 (to 5.25%, upper limit). In Canada, the bank rate, that was hiked by a full percentage point in June 2022, by 75 basis points in July 2022, and by 50 basis points in September, October, and December 2022, was raised by 25 basis points in January 2023 and most recently, on June 7, 2023, by another 25 basis points, to 4.75%. After early, rapid hikes, the more recent, smaller increments have reduced the risk of over-tightening monetary conditions and unnecessarily depressing the economy in the pursuit of the inflation reduction objective. Indeed, determining the extent to which additional policy firming may be appropriate is an empirical issue that only the interpretation of incoming data over time can inform. Both central

banks have also continued quantitative tightening, allowing their holdings of securities to run off: the Federal Reserve at a rate of US\$95 billion per month (notwithstanding its actions to prevent a disorderly collapse of troubled banks); and the Bank of Canada by a total of about \$30 billion between last November and April 2023.

Financial conditions have also been affected by changes in long-term interest rates that have been volatile after reaching a peak in November 2022.

Long-term rates have reflected the evolving market expectations of future short-term interest rates, as shaped by sometimes conflicting data about the economy and inflation, troubles in regional banking, and comments and actions by the Federal Reserve. On net, the 10-year U.S. Treasury yield has fallen from 3.9% in November 2022 to 3.6% in May 2023. The 10-year Canada bond rate has evolved in parallel with the U.S. rate, maintaining an almost constant differential of about 60 basis points since November 2022; it was about 3.0% in May 2023. The Canadian dollar has varied little around 74 U.S. cents over the same period.



Table 2.4:

KEY FINANCIAL RATES FOR THE UNITED STATES AND CANADA			
	Nov-22	Mar-23	May-23
Federal funds rate - upper limit - %	4.00	5.00	5.25
Canadian overnight rate - %	3.75	4.50	4.75 (June)
U.S. 10-year Treasury yield - %	3.89	3.66	3.57
10-year Canada bond yield - %	3.17	2.99	3.04
Canadian dollar per U.S. dollar	0.74	0.73	0.74

The result in the United States of high inflation and high interest rates has been a gradual slowing down of the economy, but most recent data still suggests at least a modest pace of growth. U.S. real GDP growth decelerated to 1.3% at an annual rate in Q1 2023, from 2.6% in Q4 2022 and 3.2% in Q3 2022 (Table 2.5). The fall in real GDP growth in Q1 2023 was essentially due to a drop in inventory investment, which subtracted 2.1 percentage points from growth. What sustained activity in the quarter were personal consumption, which rose at an annualized rate of 3.8% and real government spending that advanced 5.2%. Monthly indicators of activity in the second quarter of 2023 so far also suggest continued, moderate economic growth.

Table 2.5:

ANNUALIZED QUARTERLY GROWTH RATES OF REAL GDP AND CONTRIBUTIONS OF COMPONENTS (%)				
	Q2 2022	Q3 2022	Q4 2022	Q1 2023
UNITED STATES				
Real GDP growth	-0.6	3.2	2.6	1.1
Contributions from: Personal consumption	1.4	1.5	1.5	2.5
Contributions from: Housing	-0.9	-1.4	-1.4	-0.2
Contributions from: Changes in inventories	-1.9	-1.2	-1.2	-2.3
CANADA				
Real GDP growth	3.6	2.3	-0.1	3.1
Contributions from: Household consumption	4.6	0.2	0.6	3.1
Contributions from: Housing	-3.3	-1.7	-0.8	-1.3
Contributions from: Changes in inventories	7.5	-1.4	-5.7	-2.4

Sources: U.S. Bureau of Economic Analysis and Statistics Canada table 36-10-0104-01.

After a pause in Q4 2022 as a result of a large fall in inventory investment and nearly flat final domestic demand, real GDP growth in Canada rebounded to 3.1% at an annualized rate in Q1 2023. The economy was propelled by rapid advances in exports, especially of passenger cars and trucks, and household consumption of both goods

and services. Inventory investment and housing continued to significantly depress real GDP in the quarter.

There is not much room left in the next quarters to accommodate an expansion of consumption through a fall in the saving rate. The household saving rate was 2.9% in Q1 2023, half the level of

Q4 2022, and not much higher than the historically low 2.5% average of 2014-19. Going forward, two factors will put a damper on consumption: mortgage renewals at higher interest rates will force a tranche of households to increase their (non-discretionary) saving in order to meet their mortgage payments; and the run-off of the stock of savings accumulated during the pandemic will reduce the room for households to increase their consumption relative to income.

We expect modest real GDP growth in the second quarter of 2023, partly based on Statistics Canada's advanced indication of real GDP growth of 0.2% for April 2023. Household consumption and exports are likely to grow more slowly and imports to pick up somewhat. On the other hand, inventory investment is likely to exert less drag on growth after three quarters of decline.

A Baseline Scenario

Key Assumptions

Our baseline scenario for the U.S. and Canadian economies to the end of 2025 uses, as a starting point, the April 2023 short-term outlook for the global economy of the IMF, as presented in Chapter 1. The IMF Outlook covers 2023 and 2024. For 2025, a firming up of real GDP growth is projected for the EU, to 1.6% (from an IMF projection of 1.4% in 2024), as inflation diminishes, confidence improves and global demand strengthens. For China, growth is projected at 4.2% in 2025, down from a projected 4.5% in 2024 and 5.2% in 2023, as excess supply in the Chinese property market and an ongoing decline in working-age population weigh on growth.

Our scenario also rests on the following assumptions:

- **COVID** is no longer affecting activity or prices in the United States and Canada, and it represents only a small risk to the economy.
- Likewise, while temporary disruptions may arise, there are no longer, as discussed in Chapter 1, the gaps and bottlenecks in **global supply chains** that applied exceptional pressure on prices in 2021 and 2022.
- The **war in Ukraine** and related sanctions have diminishing effects on energy and food prices relative to 2022. Clearly, the risk of a significant escalation of the conflict exists, and repercussions on global markets could be severe, but this is not factored into our baseline.
- **Oil prices** move from a range of US\$70 to US\$85 in 2023, to a wider range of US\$70 to US\$95 by 2025. Again, one has to recognize the possibility of wider variations in prices as markets may react to short-term shocks to demand or supply in what is currently a finely balanced market. In a volatile environment, we consider for our baseline scenario the current West Texas Intermediate (WTI) price of roughly US\$70 to be the floor of a widening price band to 2025.

Monetary Policy

We judge that the policy rate in both the United States and Canada is currently at, or almost at, its peak in this cycle. In the United States, the tightening of lending standards in the wake of recent regional bank failures, which many estimate to have an impact on credit equivalent to an increase in the policy rate of 25-50 basis points, has reduced the need for further policy tightening. The Fed funds rate could be held at or near 5.25% for the remainder of 2023. At the same time, the slow pace of disinflation in services prices makes it unlikely that the policy rate will be reduced before year-end. Similarly, in Canada, we consider that further tightening of more than 25 basis points is unlikely.

We expect central banks in both countries to lower the policy rates at a moderate pace in 2024 as inflation, while coming down, will still be above



target by the end of that year. Headline inflation is expected to decline quickly, to below 3% by the end of 2023 in Canada, but progress toward the 2% target will be slow in 2024 as the price of services remains sticky, and as the risk of nominal wage increases persistently exceeding productivity growth plus 2% (the inflation target) continues.

Moreover, we think that in 2025, short-term inflation expectations will still exceed 2%, making it difficult for central banks to see their way to reducing the policy rate below the upper bound of what they have considered to be the range for the “neutral rate” of 2% to 3%. Based on this reasoning, we project that the current target Fed funds rate (upper limit) in the United States will be reduced to 4.25% to 4.5% by the end of 2024 and 3.0% to 3.25% by the end of 2025 (Table 2.6). In Canada, the current target overnight rate will be unchanged until early 2024, drop to 3.75% to 4% by the end of 2024 and to between 2.75% and 3.0 % by the end of 2025. **These projected rates are higher than those implied by current market prices.**

Table 2.6:

U.S. AND CANADIAN INTEREST RATES IN THE SHORT TERM				
	Q1 2023	Q4 2023	Q4 2024	Q4 2025
Federal funds rate - upper limit (%)	5.25	5.25-5.5	4.25-4.5	3.0-3.25
Canadian overnight rate (%)	4.5	4.75-5.00	3.75-4.00	2.75-3.0
U.S. 10-year Treasury yield (%)	3.7	3.25-3.5	3.25-3.5	3.25-3.5
10-year Canada bond yield (%)	3.0	2.75-3.25	3.0-3.5	3.0-3.25
U.S. dollar per Canadian dollar	0.74	0.73-0.76	0.75-0.78	0.75-0.79

We expect long-term rates in the United States and Canada to converge, and then to evolve within roughly similar ranges by 2025. The 10-year Treasury yield in the United States will remain volatile, but is likely to stay below its peak of October 2022, and below an average of 3.7% in Q1 2023, to be situated within a range of between 3.25% and 3.5% for the remainder of the period to 2025. The 10-year Canada bond rate, which averaged 3% in Q1 2023 should evolve in a range of 3.0% and 3.25%. The Canadian dollar is likely to appreciate from US\$0.74 in Q1 2023 to perhaps US\$0.76 to US\$0.79 over the projection period, supported by firming oil prices, faster labour force and GDP growth in Canada than in the United States, and narrowing interest rate differentials.

Fiscal Policy in Canada

Fiscal policy would have mixed and modest effects on growth in Canada in the short term. In their 2023 budgets, the federal government and the governments of Ontario, Québec, Alberta and British Columbia increased their combined deficit and net borrowing, respectively, by the equivalent of 0.4% and 0.5% of Canadian GDP in fiscal year 2023-24 (Table 2.7). This represents a modest but positive fiscal impulse to growth following a considerable 1.5% negative impulse in 2022-23 when net borrowing was substantially reduced. Thus, fiscal policy actions of the federal and provincial governments (through the combined effects of discretionary measures and automatic stabilizers, including the response of revenues to inflation) were mildly supportive of the Bank of Canada efforts to reduce inflation in 2022-23, but they will work slightly at cross-purpose with the Bank of Canada efforts in 2023-24. *If* governments limit program spending to amounts currently planned *and* if they maintain the current structure and rates of taxation, deficits and net borrowings will be reduced slightly in 2024-25 and a little more in 2025-26, withdrawing support to growth by the equivalent of some 0.3% of Canadian GDP each year.

Table 2.7:

2023 BUDGETS: CANADA AND LARGE PROVINCES				
	2022-23	2023-24	2024-25	2025-26
CANADA (March 28, 2023)				
Deficit (\$ billions)	43.0	40.1	35.0	26.8
Net capital investments (\$ billions)*	6.4	2.4	3.1	3.2
Federal debt (% of Canadian GDP)	42.4	43.5	43.2	42.2
ONTARIO (March 23, 2023)				
Deficit (\$ billions)	2.2	1.3	-0.2	-4.4
Net capital investments(\$ billions)*	9.3	10.1	14.1	14.0
Net debt (% of Ontario GDP)	37.8	37.8	37.7	36.9
QUÉBEC (March 21, 2023)				
Deficit (\$ billions)	1.7	1.6	0.6	-0.5
Net capital investments(\$ billions)	5.4	6.0	6.0	6.0
Net debt (% of Québec GDP)	37.4	37.7	37.5	37.0
ALBERTA (February 28, 2023)				
Deficit (\$ billions)	-10.4	-2.4	-2.0	-1.4
Net capital investments(\$ billions)*	0.8	1.5	1.1	-0.1
Net debt (% of Alberta GDP)	10.2	10.2	9.7	9.1
BRITISH COLUMBIA (February 28, 2023)				
Deficit (\$ billions)	-3.6	4.2	3.8	3.0
Net capital investments(\$ billions)	5.7	8.8	9.4	9.7
Taxpayer-supported debt (% of B.C. GDP)	16.4	18.9	21.3	23.0
TOTAL				
Deficit (\$ billions)	32.9	44.8	37.2	23.5
Net capital investments(\$ billions)	27.6	28.8	33.8	32.8
Net borrowing (\$ billions)**	60.5	73.6	71.0	56.3
Change in deficit (% of Canadian GDP)	-1.7	0.4	-0.3	-0.4
Change in net borrowing (% of Canadian GDP)	-1.5	0.5	-0.1	-0.5

* Net capital investments correspond to the changes in non-financial assets.

** Net borrowing is the sum of deficit and net capital investments.



The impact of fiscal policy on the productive capacity of the economy for the long term, through public investment, appears to be modest. We estimate that over the next three fiscal years, the additional funds raised by governments through their revenues and net borrowing, relative to 2022-23, will be allocated as follows: 71% to program spending, 17% to debt service, 6% to contingencies and only 6% to net capital investments. Admittedly, this rough calculation can understate investment. For example, part of the additional program spending applies to actions that foster an increase in the stock of human capital. Or some spending may help incentivize private investment. Nevertheless, additional investment over the next three years appears anemic in the light of the need to raise productivity growth in Canada and to adapt to important structural changes in the global economy. There needs to be more private and public investment.

Real GDP Growth in the United States

We expect that United States growth will slow from an already modest annualized rate of 1.3% in Q1 2023, to an average rate of 0.8% from Q2 2023 to Q2 2024, before accelerating to 1.9% on average from Q3 2024 to the end of 2025. On an annual basis, real GDP growth would be 1.5% in 2023, 0.9% in 2024 and 1.9% in 2025 (Table 2.8). On a fourth-quarter-over-fourth-quarter (Q4/Q4) basis, growth would be 0.7% during 2023, 1.5% during 2024 and 1.9% during 2025.

Much of the weakening of the U.S. economy in 2023 will originate from the two spending categories that are the most sensitive to higher interest rates: personal consumption and residential investment. Some weakness is also expected from business non-residential investment, which would adjust to deteriorated demand prospects in the domestic and global markets, as well as to tighter financial conditions. On net, business inventory investment would also contribute to weaker growth this year, and indeed it has already done so in the first quarter.

Table 2.8:

U.S. REAL GDP GROWTH				
	2022	2023	2024	2025
Year-on-year growth (%)	2.1	1.5	0.9	1.9
Q4/Q4 % change	1.0	0.7	1.5	1.9

Real GDP Growth in Canada

We project that the Canadian economy will slow to an average annualized growth rate of 1.0% from Q2 2023 to Q2 2024, before accelerating to an average pace of 2.5% to the end of 2025. On an annual basis, real GDP growth would be 1.6% in 2023, 1.3% in 2024 and 2.5% in 2025 (Table 2.9). On a Q4/Q4 basis, growth would be 1.2% during 2023, 2.1% during 2024 and 2.4% during 2025.

The comparatively strong performance of the Canadian economy during the second half of 2024 and through 2025 is explained in part by high levels of planned immigration which boost both aggregate demand, notably household consumption and housing, and labour supply. Combined with an anticipated recovery in labour productivity growth, to a trend annual rate of 0.8% to 1.0%, this increased labour supply raises potential output growth to about 2.1%, which is about the rate anticipated by the Bank of Canada in its latest Monetary Policy Report. In our projection, this allows real GDP to grow at an average rate of 2.5% during the second half of 2024 and through 2025, and gradually absorb the slack in the economy that will build by mid-2024.

Table 2.9:

CANADIAN REAL GDP GROWTH				
	2022	2023	2024	2025
Year-on-year growth (%)	3.4	1.6	1.3	2.5
Q4/Q4 % change	2.1	1.2	2.1	2.4

The composition and drivers of Canadian growth over the period reflect in part the working of interest rates through the economy, with a lag. The weakening in 2023 reflects a much slower pace of household consumption and business fixed non-residential investment, as well as a further drop in housing—all sensitive to the sharp hike of interest rates from March to December 2022. Net exports provide a partial offset as imports slow sharply (in part because demand components that are particularly sensitive to the tightening of credit conditions tend to be import-intensive) and exports expand (in part because of the strength of oil exports). Growth accelerates in 2024 as the effects of the hikes in interest rates diminish and as the U.S. economy firms up. In 2025, consumption, business fixed investment and exports, all make larger contributions to growth.

Full adjustment of household demand to higher interest rates is likely to take some time. One important reason is that mortgage renewals by households are spread over several years. The Bank of Canada reports in its May Financial System Review that, to date, about one-third of mortgages have seen an increase in payments compared with February 2022. It is not before the end of 2026 that nearly all mortgage holders will have seen their payments increase and consequently that the household sector will have fully adjusted.

CPI Inflation in Canada

Our profile for headline CPI inflation going to 2025 resembles that set out by the Bank of Canada in its April Monetary Policy Report, but with a slower convergence to the inflation target. In order to better illustrate how this convergence works over the short term, we have estimated profiles for goods price inflation and services price inflation which are consistent with the headline inflation profile.

We see headline CPI inflation declining to 2.8% by Q4 2023, 2.3% by Q4 2024 and 2.1% by Q4 2025, still marginally above the 2% target (Table 2.10). Through the period, goods price inflation falls quickly below 2%, but services inflation is stickier. Between the first and fourth quarters of this year, goods price inflation drops from 5% to 1.1%, while services price inflation dips only slightly, from 5.3% to 4.4%. Services inflation declines to 3.2% by Q4 2024, and to 2.3% by Q4 2025. Meanwhile, goods inflation in fact picks up, to 1.4% in Q4 2024, and 1.9% in Q4 2025.

Table 2.10:

CPI INFLATION IN CANADA IN THE SHORT TERM				
	Q1 2023	2023	2024	2025
TOTAL CPI				
Year-on-year growth (%)	5.1	3.8	2.7	2.2
Q4/Q4 % change		2.8	2.3	2.1
CPI - GOODS				
Year-on-year growth (%)	5.0	2.7	1.1	1.7
Q4/Q4 % change		1.1	1.4	1.9
CPI - SERVICES				
Year-on-year growth (%)	5.3	4.8	3.6	2.6
Q4/Q4 % change		4.4	3.2	2.3

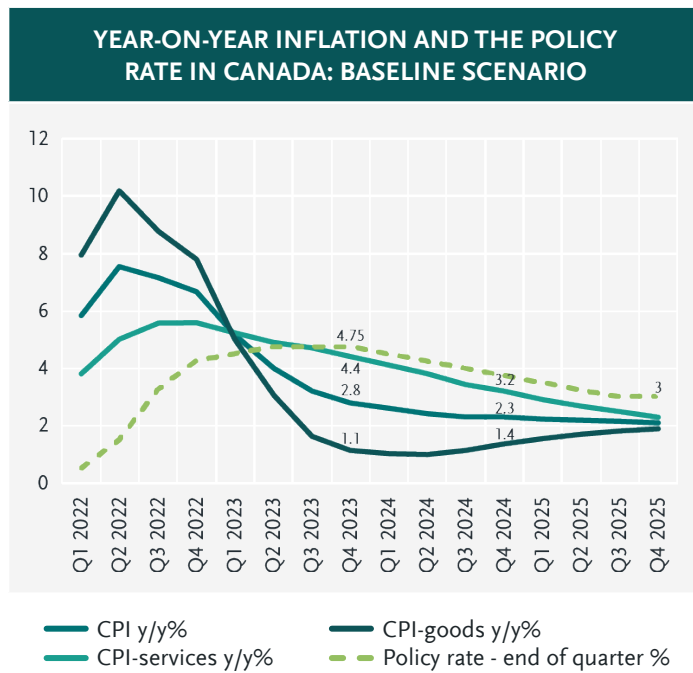
The stickiness of services price inflation is likely to keep inflation above the 2% target into 2025. This is explained by several factors. In the near term, it reflects a delayed pick-up in demand for some services compared with goods. Moreover, demand for services is less responsive to tighter financial conditions than demand for goods. Services prices are more dependent than goods prices on the evolution of wage rates, which tends to lag headline inflation. Also, high inflation in the shelter price is expected to show considerable inertia, in part



because the price of rented accommodation adjusts with a lag to changing market conditions, and because rental markets are expected to remain tight in the foreseeable future due in part to high levels of immigration.

By the end of 2025, services price inflation comes down to 2.3%, the same level as over 1998-2019, a period during which headline inflation was 1.9% and goods price inflation 1.4% (Chart 2.4).

Chart 2.4:



Risks to Growth in Canada

There continues to be much uncertainty about possible geopolitical developments (e.g., the war in Ukraine) and their consequences for the demand for, and price of, Canadian exports.

As always, there are risks that Canadian growth may not materialize as anticipated; on balance, these risks are tilted to the downside.

One of the downside risks is that U.S. growth may turn out to be weaker than in our baseline scenario, with negative spillovers on the rest of the

world, including, directly and indirectly, on Canada. This weaker U.S. growth is most likely to arise from more persistent services price inflation than expected, which would result in interest rates kept high for longer, or being raised further. The likely consequence for the United States and Canada is a more protracted period of low growth rather than a deep recession. An intensification of the crisis in regional banking may also hit U.S. growth through markedly tighter credit conditions, and these along with loss of confidence could precipitate a significant downturn, with serious negative consequences for Canada.

Domestically, there is also a risk that developments require that the Bank of Canada maintain high interest rates for longer: services price inflation may be more stubborn, or continued zero or negative productivity growth may continue to exert upward pressure on labour costs. This could extend the period of low growth to 2025 and even beyond.

Another risk for the Canadian economy is that the projected increases in immigration levels do not translate into commensurate positive impacts on potential output growth. If the skills of new permanent residents do not match domestic requirements, the additional person-years of labour may well add less to output and real income than anticipated, while at the same time increasing price pressures on housing and public services. This issue is reviewed in Chapter 3.

This said, there is a chance that inflation in Canada may prove less sticky than expected, in which case real income would be less depressed, financial conditions would likely loosen earlier, and growth would be somewhat stronger than projected. If this were also to happen in the United States, then stronger growth there would reinforce the impact of looser financial conditions in Canada. Stronger global growth would also tend to support higher commodity prices, thereby improving Canada's terms of trade and real income more than projected.

Proposed Planning Parameters for Businesses

We consider that our baseline scenario for the U.S. and Canadian economies to the end of 2025 provides a reasonable basis for business planning.

Under this scenario, the two economies evolve broadly in sync: there is a period of very modest growth on average until mid-2024, followed by one of growth at or above potential, as adjustment to high policy interest rates is largely absorbed and as the global economy strengthens. Inflation is projected to be on a steady downward track, although not quite reaching the 2% target by late 2025.

As before, there is global uncertainty, as well as risk in assessing the response of the economy to the tightening of financial conditions. Risks overall are tilted to the downside. For example, if wage and price inflation is stickier, interest rates will be higher for longer and there will be an extended period of low growth, perhaps a recession. Businesses have to factor uncertainty and risk in their planning, maintain flexibility and adjust if conditions turn out to be worse (or better) than anticipated.

Table 2.11:

	United States	Canada
	Baseline Scenario	Baseline Scenario
GDP GROWTH (Q4/Q4% CHANGE)		
2022	0.9	2.1
2023	0.7	1.2
2024	1.5	2.1
2025	1.9	2.4
HEADLINE CPI (Q4/Q4% CHANGE)		
2022	7.1	6.7
2023	3.1	2.8
2024	2.3	2.3
2025	2.1	2.1
POLICY RATE (%)		
Q1 2023	5.25	4.5
Q4 2023	5.25-5.50	4.75-5.0
Q4 2024	4.25-4.5	3.75-4.0
Q4 2025	3.0-3.25	2.75-3.0
10-YEAR TREASURY YIELD (%)		
Q1 2023	3.7	3.0
Q4 2023	3.25-3.5	2.75-3.25
Q4 2024	3.25-3.5	3.0-3.25
Q4 2025	3.25-3.5	3.0-3.25
WTI OIL PRICE (US\$ PER BARREL)		
2022	95	
2023	65-80	
2024	70-85	
2025	70-95	

III. The Supply of Labour:

Looking Beyond the Numbers

For the past 18 months, Canada has been experiencing a tight labour market where many employers report that they are unable to meet demand for their products or services due to a shortage of workers. Against this backdrop, it is pertinent to assess the future evolution of the factors governing the supply of labour and, in particular, the role of immigration in filling gaps arising from an aging population and the consequent retirement of the “baby boom” generation. Our conclusion is that over the next decade the aggregate supply of labour will grow fast enough to meet foreseeable demand, but considerable effort on the part of governments and employers will be required to make sure that the skills both of new entrants to the labour force (school leavers and immigrants) and of aging current workers match the evolving needs of Canadian businesses.

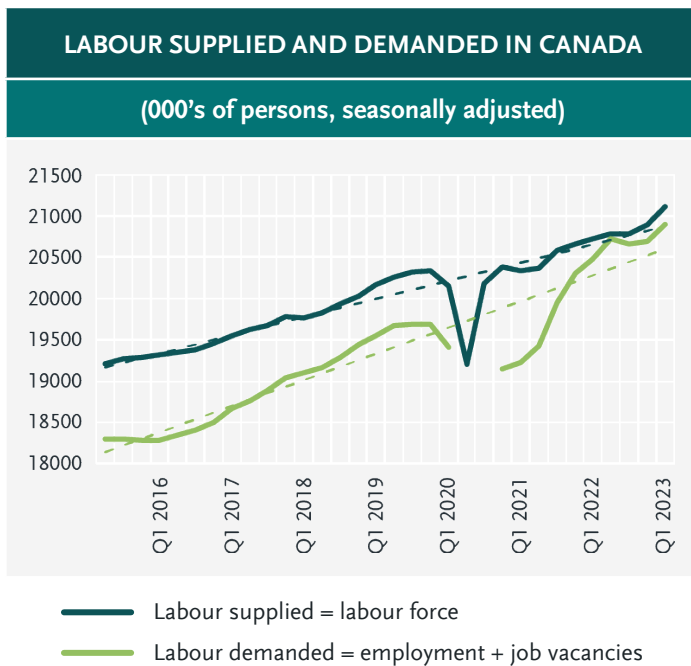
Trends in Labour Supply and Demand Over the Past 10 Years

Over the last three decades, the cohort of school leavers entering the labour force in Canada has been smaller than the cohort retiring from the labour force, creating a “gap” that has been filled, partially, by immigrants. The immigration inflow over this period was equivalent on average to 0.6% of the Canadian population each year. Even with this high level of immigration (compared to almost all other countries), growth in the supply of labour did not match growth in the demand for labour by Canadian employers (both public and private sectors).

Overall, trendlines in labour demand and supply in recent years, disrupted only temporarily by COVID, resulted by mid-2022 in an unusually tight labour market, as evidenced by historically low unemployment and high job vacancies. Over the last eight years for which there is data on job vacancies, labour demand (as measured by the sum of employment and job vacancies) grew on average at an annualized rate of 1.7%, whereas labour supply grew at a rate of 1.2% (Chart 3.1). In the year to Q1 2023, the excess of supply over demand in the labour market averaged only 0.7% of the labour force.



Chart 3.1:



Source: Statistics Canada, tables 14-10-0406-01 and 14-10-0287-01.

Were past trends to continue, Canadian economic growth could be constrained by a growing shortfall in the labour supply available to meet the needs of both private and public sector employers.

There are two ways to remedy this shortfall and to grow, rather than constrain, potential output:

- on the supply side, to increase the quantity (hours worked) and/or the quality (skills) of labour; and
- on the demand side, to reduce the quantity of labour required to produce a given volume of output, through investment in physical and human capital.

In fact, actions will be required on both the supply and demand sides of the labour market. Canada will need more workers and, as shown by the simulations below, this can be addressed in large measure by an ongoing stream of immigrants and temporary foreign workers, as well as by higher rates of labour force participation especially among

older age groups. It also matters, as addressed below, that the skills of the workforce, including of immigrants, meet the needs of employers while also making the best contribution to a more productive economy. Stronger investment by employers to raise productivity would also help to alleviate tightness in the labour market, sustain growth of potential output and support rising incomes per capita. Chapter 5 addresses this requirement to close a significant and persistent investment gap in Canada.

Prospective Trends in Labour Supply for 2023-32¹

To estimate the increase in the number of workers over the next decade, we develop two scenarios based on Statistics Canada's medium-growth population projection released in August 2022.²

We consider the age structure of the working-age population, labour force participation rates and immigration rates. We modify the Statistics Canada's population projection to incorporate two different assumptions about gross immigration and net non-permanent residents.

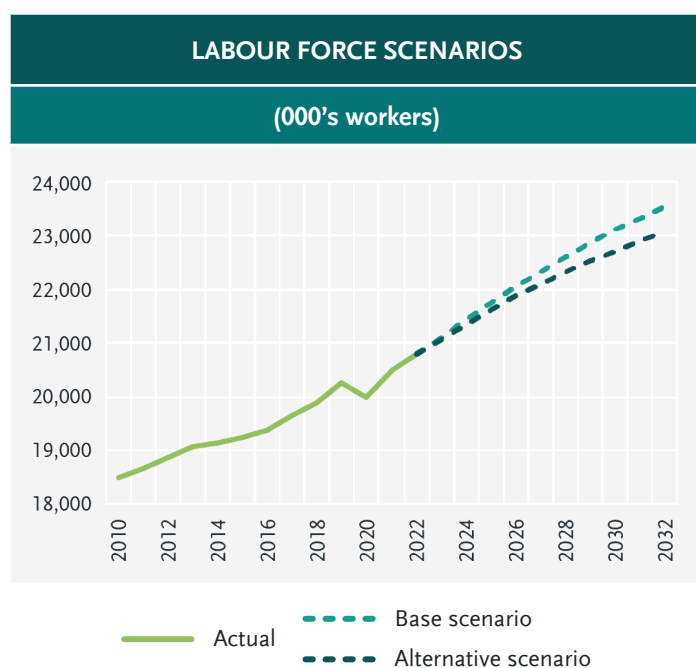
In the base scenario, gross immigration is set at 500,000 a year from 2023 to 2032; moreover, we assume that the percentage changes in participation rates by age and sex over the next decade will evolve in the same way as over the period of 2012-22. For net non-permanent residents, we assume that after an exceptional surge observed in 2022, the annual number will converge gradually to the lower levels that were projected by Statistics Canada.

In the alternative scenario, immigration is set at 500,000 from 2023 to 2025, but then it gradually declines to 440,000 by 2032. We also assume lower increases in the participation rates for the 65-69 and 70+ age groups. Specifically, in the alternative scenario, the percentage increase in the participation rate over the period for the 65-69 and 70+ age groups is only one half that observed over 2012-22 (instead of the same as in the base

scenario). Even with this adjustment, the increase in the participation rate for these age groups is greater than for other age groups. For net non-permanent residents, in this scenario, we use the numbers in the Statistics Canada projection, which entails an abrupt adjustment downward in 2023 after the surge in 2022.

Given these assumptions, under the base scenario, the labour force grows by 1.3% a year from 2023 to 2032, resulting in an average net addition of 276,000 workers. Under the alternative scenario, the labour force grows by 1.1% a year, or by an annual average of 228,000 workers (Chart 3.2). Both scenarios represent a faster growth in the labour force than over the period from 2011 to 2022 when the average annual growth was 1%, or 192,000 workers.

Chart 3.2:



The difference of growth rates in the labour force across the two scenarios arises from the interaction of the population projections from Statistics Canada and our working assumptions.

- In our base scenario, population growth accelerates to 1.3%, from 1.1% over 2011-22, of which 1.2% is contributed by immigration compared to 0.8% over the previous decade (Table 1). Working-age population increases faster than total population. This adds 0.14% (column 5) a year to the pool of potential workers, three times the pace of 0.05% over 2011-22. However, the aggregate participation rate declines at a rate of -0.19% a year. This fall reflects an aging effect of -0.43% (column 7) more than offsetting an activity effect of 0.27% (column 8). The aging effect is reducing the aggregate participation rate significantly because population is shifting over time toward older age groups which have much lower participation rates than the average. The activity effect is raising the aggregate participation rate as virtually all age and sex groups are experiencing some increase in their participation rate. By far, the most rapid increases are experienced in the 65-69 and 70+ age groups, especially for women. There is also a rapid growth in the participation rates of the 55-64 age cohorts within the 45-64 group.
- In the alternative scenario, the working-age population increases at a slower pace than in the base scenario because of smaller immigration flows, which average 469,000 instead of 500,000. The aggregate participation rate declines at an average annual rate of -0.26% annually instead of -0.19% due to a smaller activity effect stemming from assumed lower growth in the participation rates of the 65-69 and 70+ age groups than in the base scenario.



Table 3.1:

LABOUR FORCE GROWTH AND ITS SOURCES: 2023 TO 2032										
SCENARIO		Population					Participation rate			
		Labour force	LFS pop 15+	Total	Of which: immigration	Pop 15+/total pop	Total	Aging effect	Activity effect	Residual
		(1)=(2)+(6)	(2)=(3)+(5)	(3)	(4)	(5)	(6)=(7)+(8)+(9)	(7)	(8)	(9)
Contributions to growth in labour force (p.p.)										
ACTUAL	2011-22	0.98	1.19	1.13	0.81	0.05	-0.21	-0.41	0.23	-0.04
BASE	2023-32	1.26	1.46	1.32	1.21	0.14	-0.19	-0.43	0.27	-0.04
ALTERNATIVE	2023-32	1.05	1.31	1.18	1.08	0.14	-0.26	-0.44	0.21	-0.04
Average annual flow equivalents (000's)										
ACTUAL	2011-22	191.7	349.7	410.4	292.3		-158.0	-302.3	170.4	-26.1
BASE	2023-32	276.2	493.8	544.5	500.0		-217.5	-490.9	313.9	-40.6
ALTERNATIVE	2023-32	228.3	442.6	482.6	469.0		-214.3	-357.4	172.1	-29.0

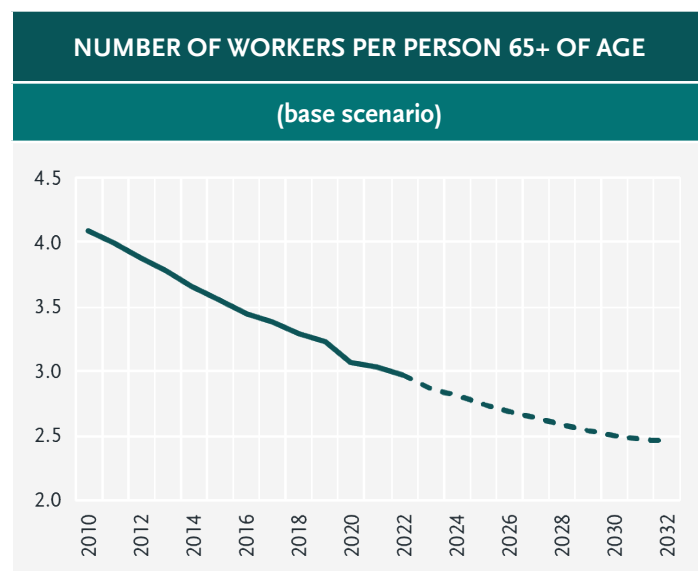
Sources of data: Statistics Canada, tables 17-10-0057-01 and 14-10-0327-01.

Table 3.2:

AVERAGE ANNUAL GROWTH IN LABOUR FORCE BY AGE-SEX GROUP: 2023-32											
	Male					Female					All Groups
	15-24	25-44	45-64	65-69	70+	15-24	25-44	45-64	65-69	70+	
BASE SCENARIO											
Increase in labour force (000's)	22.6	61.8	19.4	8.3	16.7	25.3	69.4	25.2	12.1	15.3	276.2
Share of increase in labour force (%)	8.2	22.4	7.0	3.0	6.0	9.2	25.1	9.1	4.4	5.5	100.0
Growth in labour force (%)	1.5	1.2	0.5	2.1	5.4	0.7	1.5	0.7	3.8	7.8	1.3
ALTERNATIVE SCENARIO											
Increase in labour force (000's)	20.1	54.0	13.6	5.7	13.3	22.9	62.1	19.8	6.8	9.9	228.3
Share of increase in labour force (%)	8.8	23.6	6.0	2.5	5.8	10.0	27.2	8.7	3.0	4.3	100.0
Growth in labour force (%)	1.3	1.1	0.4	1.5	4.5	1.5	1.4	0.6	2.3	5.7	1.1

Over the projection period, the 65-69 and 70+ age cohorts exhibit the fastest growth in the labour force, but they still represent only a small proportion of total labour force growth. There is rapid labour force growth in these cohorts because of population aging and because of increases in participation rates faster than for younger cohorts. Even so, each of these two cohorts still accounts for a smaller share of the increase in labour force than younger age groups, simply because their shares of the working-age population remain modest and their participation rates (though rising quickly) remain below those of younger age groups (Table 3.2). The proportion of older workers within the 45-64 group will also continue to rise as an increasing fraction of workers near retirement age, especially women, choose to stay in the workforce by preference or financial necessity.

Chart 3.3:



The retention of older workers will be important to help slow the projected decline in the ratio of workers to elderly people. Under our base scenario, the number of workers per person 65+, already down considerably from 10 years ago, falls from 3 in 2022, to 2.5 by 2032 (Chart 3.3). As a

growing number of Canadians in their 80s, 90s and 100s require more health services and social services, both employers and governments have a responsibility to create conditions that will facilitate the retention of older workers in the workforce to help pay for these services.

Changes in workplace practices and in government training and income transfer policies can facilitate the retention of older workers in the labour force.

In a recent study, two-thirds of workers aged 45-74 stated they had experienced age discrimination in their workplace, and the same percentage of companies considered older age a competitive disadvantage.³ Employer best practices to retain older workers include: flexibility of hours and location of work; diversity and equity plans that deliberately combat ageism; recruitment efforts that target those who have retired or who are contemplating a “second career”; or reverse mentorships where younger workers mentor older ones. Government transfer programs such as the Canada Pension Plan and the Guaranteed Income Supplement could be reformed to encourage workers to remain in the labour force. Last, government programs that support skills training and re-training will be vital components of any economy-wide strategy to enhance participation.

All this said, the most important contribution to growth in the labour supply over the next decade will come from the 25-44 age cohort, and immigration will be a critical component of the quantity and quality of skills added to our workforce.

Because the 25-44 age cohort accounts for a large share of the working-age population (about 32%) and has a high and slightly rising participation rate (especially for women), it contributes about one half of the labour force growth in both our base and alternative scenarios. As the growth of this cohort comes disproportionately from immigrants, it is important that the skills of immigrants align with the needs of the economy.



The 15-24 age cohort represents just under 20% of future labour force growth in both scenarios. This group consists largely of an educated workforce of Canadian post-secondary graduates who normally should contribute to meeting the changing skills needs of employers.

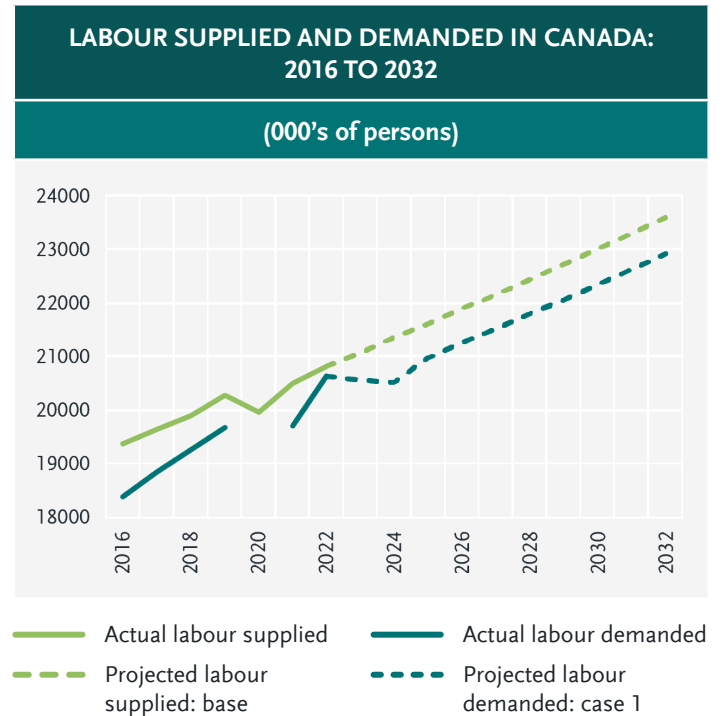
The Labour Market Gap for 2023-32

We measure the degree of slack (or tightness) of labour markets by the difference or “gap” between the unemployment rate and the job vacancy rate.

Normally labour markets function with some degree of slack, such that the amount of hours that the labour force is willing to supply exceeds by a small amount the number of hours of work that are demanded by employers. The size of this gap can be represented by the difference between the number of unemployed and the number of job vacancies, measured as a percentage of the labour force. Given the labour supply scenarios described above, and reasonable assumptions about the determinants of labour demand, including potential output and trend productivity growth, we estimate labour market gaps over the period to 2032. In the results below, we look beyond the near-term cyclical adjustments and focus on medium-term outcomes for 2026-32. The work is described in greater detail in the separate paper cited above.⁴

We estimate that over the next decade, the gap between labour supplied and labour demanded will be equivalent to an average of about 3% of the labour force, down from an average of 4.1% over 2016 to 2018, but up from 0.8% in 2022 (Chart 3.4). However, the gap could easily vary between 2% and 3.2%, based on different assumptions about the determinants of labour demand. Our simulations overall situate the gap for the next decade between what was observed in the period from 2016-18, when there was a normal excess of supply over demand, and 2022 when there was extreme pressure of demand on supply.

Chart 3.4:



The gap over the next decade could be larger, for example if GDP grows more slowly than assumed, or if technological change leads to a sharp increase in trend labour productivity growth. We think that our scenarios for aggregate labour supply are reasonable, based on recent demographic projections and government policy on immigration, but it is quite possible that our outlook for growth of labour demand is too optimistic. Slower GDP growth or faster gains in productivity would cause the growth in employment and vacancies to be weaker. The unemployment rate would be higher, the vacancy ratio lower, and the labour market gap larger.

It is also possible that unemployment and vacancies could both rise if the skills composition of labour demanded is not matched by that of labour supplied. This could lead to specific skills shortages coexisting with a period of higher unemployment. To avoid a period of high structural unemployment, it is important that the education and skills of young

people leaving the education system and entering the labour force are aligned with both the short and longer-run demand for labour. This is equally true for immigrants, as discussed in the following section.

Immigration

The Government of Canada’s target to welcome 500,000 immigrants per year by 2025 represents an increase of 75% relative to the 2017 target. In 2022, 431,645 individuals became permanent residents of which 45% were already resident in Canada.⁵

The immigration system in Canada is highly complex, with over 100 immigration programs. The system suffers from regulatory, financial and operational constraints resulting in backlogs and delays. The government’s higher targets raise concerns not only for the processing of applications but also for immigrant onboarding, including the sufficiency of housing, health care and other supports. Below, we set aside these issues and focus exclusively on who is being admitted to Canada and whether they have the skills to meet the demand for labour and help raise productivity.

In 2021, 56.3% of all immigrants fell within the “economic” class. Immigrants admitted under the economic category are selected based on their potential to help meet labour market needs, or to create economic opportunities by owning, operating or investing in a business or through self-employment.

For those seeking entry through the economic class, there are two main paths to permanent residency. The primary and most direct path is the express entry system. It is expected that for the period from 2023 to 2025, approximately half of all economic class immigrants will come through this system. Express entry is an online tool that allows applications to the three largest skills-based immigration programs: the federal skilled worker

program (FSWP), the Canadian experience class (CEC) and the skilled trade worker program.⁶ Individuals who have been selected to be part of a provincial nominee program (discussed below) also have the option of applying for permanent residency through express entry.

An alternative path that has been increasing in importance in the last decade is the two-step entry process. Under this approach, a worker comes to Canada through one of several temporary worker programs and then applies for permanent residency having gained Canadian work experience. From 2016-21, 36.6% of all immigrants had worked in Canada on a temporary basis prior to applying for permanent residency. Entry through other streams that are not focused on skills such as family reunification, start-up entrepreneurs and refugee claimants will not be discussed herein even though these streams can and do incidentally provide skilled labour.⁷ For example, the recent arrival of Ukrainian refugees undoubtedly expanded the pool of skilled labour in Canada.

The Express Entry Path to Permanent Residency

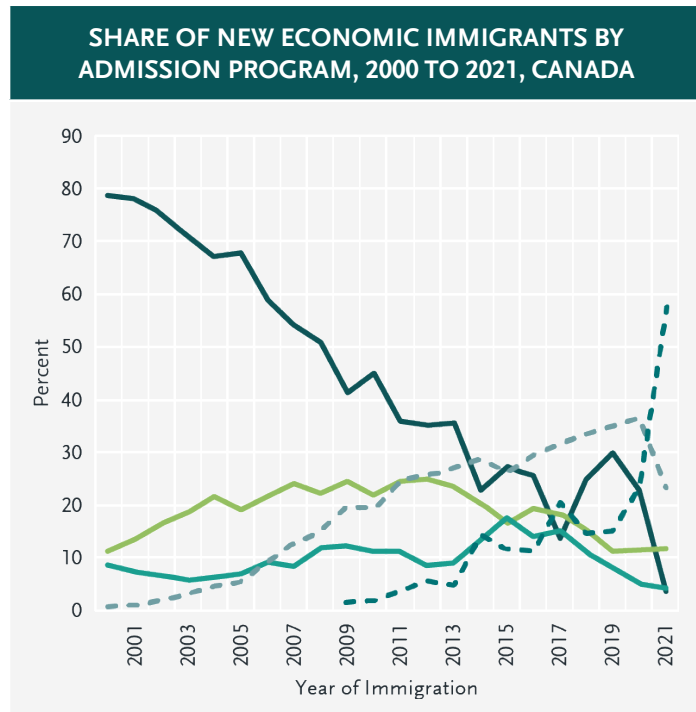
Express entry is considered the fastest way for skilled workers to obtain permanent residency in Canada. An application is reviewed by Canadian officials within six months. The result of a positive determination is an invitation to apply for permanent residency. Where an invitation to apply is sent to a candidate, he or she has 60 days to formally respond. The final acceptance of permanent residency can then take up to six more months.

The criteria for express entry appear to be shifting, in some cases placing less reliance on comprehensive skills, and more on responsiveness to immediate labour market needs. Up until May 31, 2023, individuals with minimum scores of at least 480 out of a potential maximum of 1,200 under the comprehensive ranking system would



have usually been invited to apply for permanent residency. Early in 2023, the government announced that a modification of the point system would be put in place to allocate greater points based on occupational background, sectors of the economy with current labour shortages, whether candidates have resided in Canada as international students or temporary foreign workers, and the French-language proficiency of candidates. On May 31, 2023, five sectors were highlighted that have current labour shortages: STEM, health care, agriculture/agrifood, transportation and the trades. While candidates in some of these sectors will be expected to have a high level of skills, this is less certain in the agriculture-agrifood or transportation sectors where immediate gaps in the labour force tend to be for low or medium-skilled occupations with relatively low wages.

Chart 3.5:



— Federal skilled worker program
— Québec selection
— Other economic programs
- - - Provincial nominee program
- - - Canadian experience class

Source: Statistics Canada, Longitudinal Immigration Database

The three main programs in the express entry system have evolved over the past 20 years, with a continuous decline in the number of immigrants admitted under the FSWP, and an expansion of both the CEC and the provincial nominee program (PNP) (Chart 3.5).⁸

- The proportion of economic immigration under the FSWP has dropped consistently, even though it is the most reliable source of high-skilled labour. The federal government shut down the program during the pandemic, and it is now facing a significant backlog. As a result, the target under the program in 2022 was only 55,900 immigrants for both express entry and regular paths to permanent residency. There is, however, a federal plan to enhance this program so that a target of 111,500 FSWP admissions can be achieved by 2024.
- The CEC program has grown since inception and it continues to be a significant source of labour supply. The large number of entrants under this program during the pandemic is attributed to the fact that these candidates were already in Canada in 2020 when the borders closed during COVID. The CEC responds to empirical evidence that local experience is an excellent predictor, at least in the short run, of both employment and higher-level earnings.⁹ Candidates under this program must have at least 12 months of skilled Canadian work experience.¹⁰ However, the required score for CEC candidates is less than for the FSWP, and the number of years of Canadian employment tends to be low because of limits on the number of years permitted under temporary worker permits.
- The PNP is intended to respond to provincial and territorial priorities, to address gaps identified by employers and to attract candidates to the different parts of Canada, including regions where immigrants are otherwise less likely to locate. Individuals can apply to several

provinces and each province will consider the candidate according to its own criteria. Although admissions under this program fell during the pandemic, in 2022, it resumed its status as the primary path to entry when over half of all express entry invitations were for provincial nominees. The growth in this program reflects the fact that additional provinces have signed agreements with the federal government, and the federal government has been willing to increase PNP quotas. At present, nine provinces and two territories have immigration agreements. The express entry system accounted for only one-third of all PNP immigrants in 2022.¹¹ Yet, for those PNP candidates using express entry, because of the scoring system, there is a virtually guaranteed invitation to apply for permanent residency.

Changes in the distribution of immigrants across the different economic programs over time has meant a dilution in the education and skills criteria for entry of immigrants. In particular, the education and skills levels of provincial nominees tend to be lower than those under other programs. A recent study illustrates this point, although relying on data for the 2010-15 period. Over this period, 54% of PNP participants had a university education, compared to 83% in the FSWP.¹² 26% were in semi-skilled or low-skilled jobs, contrasting with 97% in managerial, professional or skilled and technical work for FSWP participants. More recent data from 2021 shows that the most common jobs of the PNP immigrants are restaurant cooks and truck drivers. While recent efforts to support the recruitment of health care workers through the PNP may augment the overall skills level, the fact remains that the PNP is not generally aligned with the goal of building a comprehensively high skilled labour force.

Temporary Workers and Transition to Permanent Residency

Additions to Canada's labour force also come from temporary worker programs and by the transition of some of the temporary workers to permanent residency. In 2022, there were over 600,000 temporary work permits issued and approximately 120,000 temporary workers transitioned to permanent residence.

There are three main pathways for entry of workers on a temporary basis: the international mobility program (IMP), the temporary foreign worker program (TFW) and the post-graduate study work permit (PGSWP). Once in Canada on a temporary permit, entry on a permanent basis is possible through either a regular application for permanent residency or the express entry system noted above.

- The IMP is the largest source of temporary workers, accounting for over 70% of permits. Under this program, it is not necessary for the Canadian employer to do a labour market impact assessment (to demonstrate a shortage), and the permit can be for up to three years. All candidates have offers of employment in Canada, some as part of an inter-company transfer. The criteria for entry under this program are broad. A candidate must have a Canadian job offer, there must be contribution of economic, cultural or other competitive advantages for Canada, and the country of origin must provide reciprocal benefits for Canadian citizens and permanent residents. Where the job is high-skilled, permits are fast tracked and are often available within a matter of weeks. In 2022, there were a total of 472,070 permits issued under this program, and in that same year, 97,665 transitioned to permanent residency.¹³



- The TFW has several component parts. There are streams for high-skilled work, low-skilled work, agriculture, fish and food processing, global talent, caregiving and foreign academics. The total number of TFW work permits issued in 2022 was 136,500. Food and food processing workers constitute the largest group. The highest skilled workers are found in the global talent stream, but it accounted for only 5,000 permits issued in spite of a rapid permitting process. The remaining categories are not generally high-skilled but do respond to employer needs related to difficult-to-fill positions and labour shortages. The number of TFW permit holders transitioning to permanent residency has not increased significantly since 2000 and it is low (7,555 in 2022).
- Finally, international students who have graduated from a Canadian university or college can apply for a work permit under the PGSWP. The permit is valid for only 12 months and it requires that a former student work in a skilled job. In 2022, over 50,000 PGSWP holders transitioned to permanent residency, representing an important source of permanent skilled workers. It should also be noted that with a regular foreign student visa, a student can work up to 20 hours a week, but this type of work does not have an associated program that leads to permanent residency.

Conclusion

The excess aggregate demand for labour in Canada experienced in 2022 should dissipate in the short run as the economy cools, the labour force participation of older workers increases and the number of immigrants grows. Our analysis indicates that the labour force will grow by about 1.25% annually in our base scenario (with 500,000 average annual immigration) and by a little over 1% annually in our alternative scenario (with 469,000 annual immigration). In both cases, growth in labour supply would be higher than the roughly 1% growth of the last decade.

On the assumptions that labour demand is roughly equivalent to supply under these scenarios, and that labour productivity increases at an annual rate of slightly less than 1% (as per recent history), Canadian potential growth could reach slightly more than 2% on average over the coming decade. To achieve this outcome—i.e., higher productivity and a balanced labour market—requires sustained investment in both physical and human capital.

While we project that the numbers of workers should be adequate over the medium term, we are concerned that the skills of the workforce may not be sufficient to raise productivity growth and to help meet structural challenges such as the energy transition or digitalization. Efforts will be needed to enhance training and education of the labour force and to prioritize the selection and integration of highly-skilled immigrants. With automation and AI technology increasingly performing non-routine work, a highly-skilled labour force is becoming ever more important to meet the needs of a competitive, sustainable and growing economy.

Because of the increase in the number of permanent residents expected in Canada, there is cause for concern that the comprehensive skills level of new permanent residents is diminishing rather than increasing. From June 2015-22, an analysis of Canadian immigration occupation codes shows a 13% decline in positions requiring the highest level of skills.¹⁴ The decline of the FSWP and increase in the PNP also appear to contribute to a lower intake of higher-skilled immigrants.

Many lower-level skilled workers on a track for permanent residency continue to be admitted under a variety of programs. Programs such as the PNP, the CEC and the TFW respond to labour market pressures, mainly in the agriculture, restaurant and trucking industries. The recently announced assessment reform for express entry to augment the inflow of workers in agriculture/agrifood and transportation industries may well lead to similar results. It is understandable that temporary foreign work is needed for seasonal or temporary jobs. It is also understandable that immigration policy would have as one objective to help redress current labour

shortages (e.g., nursing). However, increasing the entry of permanent residents to fill low-skilled, low-pay jobs will not incent employers to invest in technology and in productivity-increasing capital on a sustained basis. Without enhanced productivity, the real incomes of Canadian workers will not grow.

There are, however, ongoing policy changes that could help raise skills levels of new immigrants. Insofar as the new assessment system for express entry grows the intake of workers in STEM, health care and the trades, there could be an important contribution of higher-level skills. The ramping up of the number of immigrants admitted under the FSWP is a welcome reform. Similarly, the increase in temporary high-skilled international mobility candidates and the rapid transition to permanent residency of those in the global stream of the TFW are constructive developments. Finally, the increase in permanent residency for those who held post-graduate international student work permits will help strengthen the overall contribution of immigration to our economic performance.

IV. Geopolitics and Geoeconomics:

An Increasingly Fragmented World

Geopolitical rivalries and conflict, as well as structural forces, are fragmenting the global trade and investment environment, causing governments and firms to adapt and to de-risk their strategies for international relations and business. Fragmentation results from multiple causes: hardening tensions between the West and China, the war in Ukraine and the continuation of sanctions against Russia, new forms of protectionism, the advent of coalitions or clubs of like-minded economies on matters ranging from national security to climate and social standards and the deployment of massive industrial subsidies. Laws, regulations and international arrangements are changing at a rapid pace, with impacts on sourcing, selling and the flow of goods, services and capital. While there is no evidence that the world is decoupling into two blocs, businesses and governments are de-risking supply chains and reshaping the patterns of trade and investment.¹

“Supply-chain disruptions and rising geopolitical tensions have brought the risks and potential benefits and costs of geoeconomic fragmentation to the center of the policy debate.”

IMF World Economic Outlook, April 2023

The Backdrop: Trade and Investment Prospects Shaped By the Pace and Distribution of Global Growth

A backdrop to pressures and trends affecting international business is the peaking of global trade as a proportion of GDP just prior to the global financial crisis (GFC) of 2007-08. This followed a

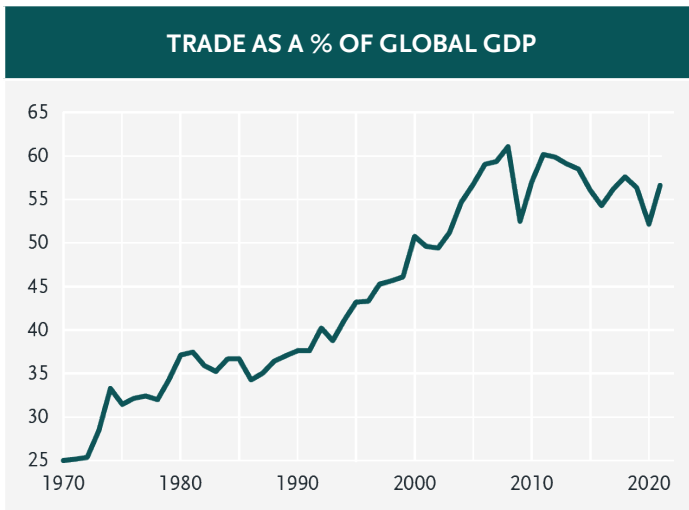
long period of uninterrupted expansion of trade supported by policies founded on the Washington Consensus and by the emergence of China as a manufacturing and export powerhouse. There was a sharp downfall of trade as a percentage of GDP during the GFC, then a bounce back, but since then a plateauing such that trade is no longer, in and of itself, the same driver of global growth.

Recent trends and short-term prospects confirm that international trade, as well as cross-border investment, are now growing roughly in line with global output. The WTO predicts that growth in the volume of world merchandise trade will slow to 1.7% this year from 2.7% in 2022 (including a sharp slump in the fourth quarter). For 2024, the WTO projects a growth of trade volume of 3.2%. The outlook for global foreign direct investment is also one of modest growth, given tight financial conditions, investor uncertainty in the face of multiple crises, especially in developing countries, and increasing debt-related risks.²

The evolution of trade and investment is also shaped by the distribution of global economic activity and growth: in 2023, 70% of projected global economic growth originates in Asia, 50% in China and India, more than one third in China alone. This high proportion of projected growth in Asia reflects in part the expected recovery of the Chinese economy in 2023 after the abandonment of its zero-COVID policy. Over the medium to long term, China will not have the same growth as in prior decades, but the Indo-Pacific region broadly is poised to continue to lead global economic expansion and to represent a rising share of international trade and investment.

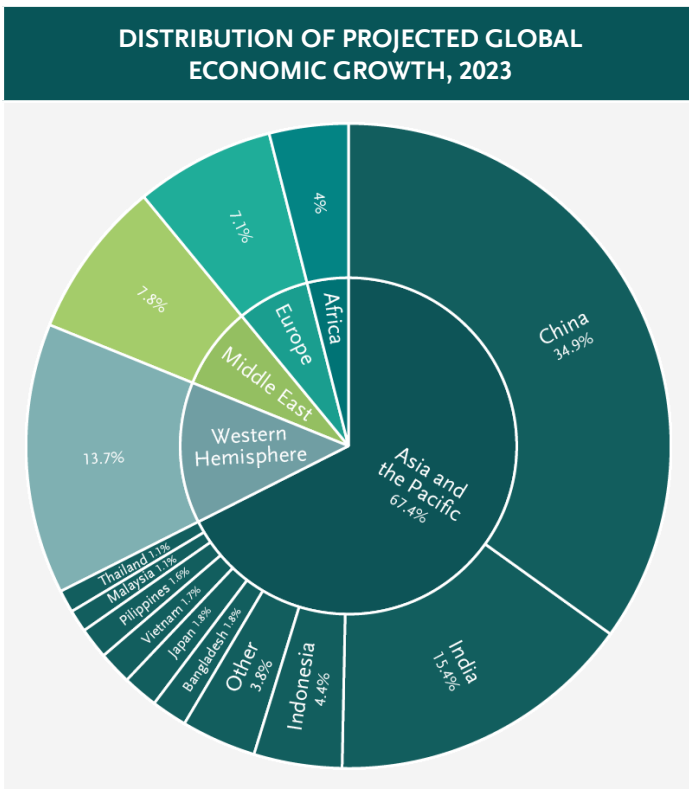


Chart 4.1:



Source: World Bank Group

Chart 4.2:



Source: IMF, World Economic Outlook, April 2023. Note: Grouping based on IMF Regional Economic Outlook classifications.

Geopolitical and Goeconomic Factors Fragmenting the International Business Environment

A number of geopolitical and goeconomic factors are disrupting trade and investment in the short and medium term. Taken together, these factors are contributing to an increasingly fragmented international business environment, with important consequences for government policy and business planning.

“...many would conclude that globalization has ended. But, rather than a sharp reversal of the past 30 years, it seems far more likely that we are entering an era of fragmented globalization characterized by substitution, not negation.”

Mohamed A.El-Erian, Project Syndicate, March 8, 2023

1. The War in Ukraine

The Ukraine war and accompanying sanctions and countersanctions will continue to disrupt if not constrain the supply of key energy, food and industry-related commodities.³ Impacts are aggravated by restrictions added by countries on their own imports from, and exports to, Russia (with some countries adding restrictions on imports of grains from Ukraine to avoid depressing domestic prices). The disruptions to international business extend to the means of settling transactions, with a higher proportion of export sales now denominated in currencies other than the U.S. dollar. While there is no serious risk in the medium term of the U.S. dollar losing its status in international trade and finance, China, Russia, India, Brazil, Indonesia and Saudi Arabia have stated their intention to broaden the practice of denominating transactions in other currencies.

2. China

Both Western countries and China continue to harden positions on matters of peace and security, such as Taiwan, and more broadly on issues of economic and national security, such as cyber and high technology goods and services.⁴ As reaffirmed by G7 leaders at their recent summit,⁵ the United States and allies consequently are determined to reduce dependency on China as a supplier, particularly of critical minerals, semiconductors and other components of the ICT ecosystem, and batteries. While both sides profess an interest in maintaining and growing two-way trade and investment otherwise, economic security is now widely accepted as a central element of national security. The likelihood is therefore high of increased scrutiny by Western governments of the origin of inputs and components through to sources of capital, by way of import and export controls and restrictions and heightened investment review.

U.S. restrictions in the name of economic and national security now carry significant extra-territorial reach. For example, U.S. law prohibits the export to prescribed purchasers in China by any company located in the United States or abroad of semiconductor-related goods, even if not made in the United States but if produced from U.S. software technology or with U.S. equipment.

Yet, it is a mis-statement to suggest that the West and China are “decoupling”.⁶

Total U.S.-China imports and exports grew 2.5 % year-on-year in 2022 to reach close to US\$700 billion, the highest on record, although the total share of Chinese imports to the United States dropped approximately 3% since the 2018 imposition of tariffs by former President Trump. On April 21 2023, U.S. National Security Advisor Jake Sullivan described the approach as “...protecting our foundational technologies with a small yard and high fence.”⁷ Meanwhile, China’s trade in goods with

the EU grew by 5.6% in 2022.⁸ Canadian imports from China in 2022 grew by over 16%.⁹ Our exports to China grew by a more modest 2%, constrained by China’s COVID lockdowns and by the fact that restrictions on canola imports were lifted only in May 2022. With China’s economy projected to grow by 5.2% this year and subsequently to generally maintain a healthy pace of growth, trade can be expected to continue to expand.

“Our policy approaches are not designed to harm China nor do we seek to thwart China’s economic progress and development. A growing China that plays by international world would be of global interest. We are not decoupling or turning inwards, At the same time, we recognize that economic resilience requires derisking and diversifying. We will take steps, individually and collectively, to invest in our own economic vibrancy. We will reduce excessive dependencies in our critical supply chains.”

G7 Leaders’ Communiqué, Hiroshima, Japan
May 20, 2023

3. Supply Chain Disruptions

Although major bottlenecks resulting from the COVID pandemic have largely subsided, disruptions are likely to continue. In 2022, supply chains in various countries were disrupted by labour disputes in transportation and logistics, major weather and cyber incidents, and factory fires. According to Statistics Canada, fully one-quarter of those engaged in wholesale or retail trade expect maintaining inventory levels to continue to be a challenge this year¹⁰ and over 80% of U.S. supply chain leaders anticipate challenges will worsen or stay the same during the next 6 to 12 months.¹¹ In the first quarter of 2023, food constraints continue: in addition to the impact of the war in Ukraine on grain deliveries,



drought in California has had a major impact on fruit and vegetables, and avian flu has pushed up egg prices. Supply of lithium, graphite and cobalt—all components in electric vehicle battery production—remain behind accelerated demand. Pharmaceutical shortages persist. However, the semiconductor chip shortage is easing and the market is expected to stabilize in the course of the remainder of the year.¹²

4. Climate and Carbon Pricing

The EU is in the final stages of implementing a “Carbon Border Adjustment Mechanism (CBAM)”¹³, scheduled to become operational on October 1, 2023. Under a phase-in schedule, in the first instance importers of electricity, cement, fertilisers, iron, steel and aluminium will only have to report greenhouse gas emissions embedded in their imports (direct and indirect emissions), without making any financial payments or adjustments. The agreement foresees that indirect emissions will be covered in the transitional period for some sectors (cement and fertilizers), based on a methodology to be defined in the meantime. Canadian exporters of covered products should thus be alert to potential documentary requirements. According to current plans, when fully operational at the start of 2026, importers will be required to purchase CBAM certificates corresponding to the embedded emissions in the imported goods.¹⁴ With different jurisdictions globally adopting or considering different approaches to carbon pricing, especially if accompanied by such border tax-like mechanisms, traditional trade patterns could be disrupted.¹⁵

5. ESG Accountability

Growing requirements for supply chain accountability, in particular for forced labour, will affect sourcing and shipping decisions. In Canada, Parliament passed Bill S-211, *An Act to enact the Fighting Against Forced Labour and Child Labour in Supply Chains Act and to amend the Customs Tariff* in early May; it is expected (at time of writing) to

receive Royal Assent shortly and to take effect on January 1, 2024, imposing significant reporting obligations on Canadian businesses and importers. This followed U.S. passage of *The Uyghur Forced Labour Prevention Act* at the end of 2021 that authorizes Customs seizure of offending goods. The EU has also proposed a regulation on prohibiting importation or sale of products made with forced labor, and it has approved a “Deforestation Free” regulation to come into force in 2025. More broadly, German, Dutch and EU measures requiring accountability by local firms for their entire supply chain will impose major new transparency and documentary requirements.

Broader ESG reporting requirements will likely have a more profound impact on trade and investment. Several codes and guidelines have been promulgated under international auspices.¹⁶ Government mandates on disclosures of sustainability and ESG information are now part of the landscape. Work continues at the International Sustainability Standards Board to finalize standards for general reporting on sustainability and for climate-related disclosures to promote the “interoperability” of disclosure frameworks.¹⁷ The EU’s Corporate Sustainability Reporting Directive entered into force in January 2023, with reporting requirements taking effect in 2025 that will require some 50,000 companies to report on business risks and opportunities on social and environmental issues, including the impact of their operations on people and the environment. In 2022, the U.S. Securities and Exchange Commission proposed a climate risk disclosure rule for publicly traded companies.

6. The Digital Space

The digital agenda presents disruptive challenges alongside opportunities. Investment in technology facilitates remote work, online commerce and productivity. “Big data” is growing in importance, as the cloud becomes the dominant IT platform, AI

speeds analytics, modeling and scenario planning, and convergence of technologies enables rapid innovation and production (e.g., 3-D printing and production as well as optimized logistics).

Threats to business and to open trade and investment abound in the digital space. Among the most frequent and costly risks are ransomware extortion, cloud third-party threats, mobile malware, “Zero-Day” vulnerabilities and global attacks on business.¹⁸ Government-sponsored hacking by Russia, China and others is increasing in frequency and severity.¹⁹ More generally, data breaches are a pervasive risk: a staggering 36 billion records were exposed in the first three quarters of 2020, the latest for which a global figure is available, twice the number of the year before.²⁰

The setting of rules and standards for competitive advantage and security are leading to fragmentation of the digital space. The “China Standards 2035” initiative launched in 2021 reflects an ambition to set the rules in cutting edge technologies such as 5G and 6G, AI, and the internet of things, whereas Canada, the United States, Japan and others are building on the 2019 OECD agreed principles for AI to flesh out standards for responsible use. The EU’s *Digital Services Act* and *Digital Market Act* are not fully aligned with North American frameworks. Importantly, in the wake of COVID, Canada and the United States agreed on an Action Plan for Critical Infrastructure, including cyber and other dimensions of infrastructure security and resilience, and close bilateral collaboration continues.

Indeed, approaches to regulate the digital economy tend to bring together like-minded countries. For example, common standards are lacking to balance privacy and security of personal data

with the imperatives of digital commerce, leading global partners to work toward agreed frameworks. Initiatives include the nascent Digital Economy Partnership Agreement (comprising Singapore, New Zealand and Chile), which Canada seeks to join, as well as ongoing talks between the United States and the EU, and the championing by the G7 of “Data Flow with Trust” principles.

7. The WTO and Bilateral, Regional and Plurilateral Initiatives

Progress toward a more functional WTO is slow, and it will need to accelerate to preserve the relevance of the organization. Little progress is in evidence in respect of the commitment of members to restore a fully functioning dispute settlement system alongside reforms to improve the functioning of the WTO. Efforts to reach agreement on disciplines in such areas as e-commerce are advancing, but slowly. Following agreement at last year’s ministerial meeting on disciplining fisheries subsidies, Canada became among the first to sign on to the new rules; other signatures await. It is highly uncertain whether progress may accelerate and whether the WTO may advance a more ambitious agenda by the next major WTO Ministerial meeting scheduled for early 2024.²¹

As a result, the “spaghetti” or “noodle” bowl of free trade agreements—with overlapping and sometimes conflicting tariffs, standards, and inspection and related border requirements—remains pervasive, imposing inefficiencies and administrative costs. In virtually every region, new bilateral and plurilateral agreements are being pursued, including to address specific topics such as digital trade or commodity trade. Canada’s current trade agenda reflects this trend, as set out in Box 4.1.



Box 4.1

CANADA'S TRADE LIBERALIZATION AGENDA

Implementing the Indo-Pacific Strategy: The Government of Canada has taken concrete steps to implement its pledges, encompassing several initiatives and accompanying funding to expand trade, investment and supply chain resilience in and with the region, including:

- naming a special trade envoy for the Indo-Pacific alongside Ambassador Ian McKay, named as Special Envoy to the Indo-Pacific;
- creating a “Canadian Trade Gateway” in Singapore to better assist Canadian traders and investors; and
- enhancing the capacity of FinDev Canada to expand its operations into the Indo-Pacific and accelerate its work in priority markets to support high-quality, sustainable infrastructure.

Additional announcements are expected regarding: the proposed agriculture office in the region to increase and diversify agriculture and agri-food exports to the Indo-Pacific; and expansion of natural resource ties with the Indo-Pacific.

The Comprehensive and Progressive Trans-Pacific Partnership Agreement: With the recent ratifications by Malaysia, Brunei and Chile, more opportunities have been created for Canadian exporters into additional markets, though utilization by businesses is low. Canada has welcomed the United Kingdom as the

first acceding partner and supports further accessions by others that demonstrate capacity and willingness to abide by its high standards.

Canada-European Union Comprehensive Economic and Trade Agreement (CETA): CETA lowers tariffs on 98% of goods traded between Canada and Europe, although it has been only provisionally applied since 2017, while awaiting ratification by several remaining EU member states. Despite COVID, both trade and investment continues to grow in both directions.

India: Talks are advanced in reaching an “early-stage trade agreement”.¹

Taiwan: Talks are advancing on a Foreign Investment Protection Arrangement with Taiwan.

Free trade agreement negotiations have been launched with the Association of Southeast Asian Nations and with Indonesia.

Canada expects to join the Indo-Pacific Economic Framework championed by the United States and is seeking accession to the Digital Economy Partnership Agreement.

Canada is participating in several critical minerals working groups² and has joined discussions in the United States-led Minerals Security Partnership and on a U.S.-proposed “Global Arrangement on Sustainable Steel and Aluminum”.

1. Trade Minister Mary Ng and her Indian counterpart in a joint statement following their meeting on May 11, 2023, stated aid they seek “enhanced co-operation” in the fields of “agricultural goods, chemicals, green technologies, infrastructure, automotive, clean energy, electronics and minerals and metals”, but it remains unclear which of those sectors would be included in the early agreement. Minister Ng said she expects to reach agreement “within months, not years”. See: [Ng announces India trade mission, pledges a limited deal within months](#), Victoria Times Colonist. It is unclear which of those fields would be part of an interim deal and which would be held off for later talks about a larger agreement.
2. [Our critical minerals strategic partnerships](#), Government of Canada

8. The Resurgence of Industrial Subsidies

Subsidization by governments of their domestic industries to gain competitive advantage has long been discouraged at international trade tables, but restraint now seems to be abandoned or at least severely weakened. A recent study inventoried over 30,000 subsidy measures implemented by 57 economies since November 2008.²² In the United States and Europe, two imperatives have spurred aggressive industrial policies that include massive subsidy programs. First, in the face of continuing state support by China, particularly through its State-Owned Enterprises, in sectors ranging from steel and automotive to semiconductor chips and other advanced technology, the United States considers it necessary to provide its own industry with significant support to maintain and build a technological edge and to keep jobs at home. Second, both the United States and Europe are committed to accelerating a transition to more sustainable energy production and consumption.

The new industrial subsidies are implemented in the name of defensible strategic needs, but they include protectionist elements. In the United States, the *American Rescue Plan Act*, the *Infrastructure Investment and Jobs Act*, the *CHIPS and Science Act* and the *Inflation Reduction Act* collectively provide approximately \$US3.8 trillion in spending, of which \$US 80 billion is estimated to be for “place-based” industrial policy, including significant preferences for U.S. firms and U.S.-based production.²³ Requirements for U.S. content could deny Canadian firms access to available sales opportunities in favour of U.S. firms in receipt of such incentives. Certain rules provide exemptions to nearly two dozen countries, including Canada, for eligibility for tax credits on EV production on the basis of having free trade agreements with the United States.

Bold new U.S. measures are prompting responses by EU authorities to “level the playing field”. Early this year, the European Commission announced its own “Green Deal” Industrial Plan, in part to respond to U.S. incentives. As reflected in the proposed *NetZero Industry Act*, the Plan would provide accelerated access to finance and would make €250 billion (\$272 billion) available from existing EU funds for the greening of industry, including tax breaks to businesses investing in net-zero technologies. It proposes additional tools that could include the ability to match certain U.S. incentives on a dollar-for-dollar basis. In March 2023, however, EU Commission President von der Leyen and U.S. President Biden announced their intention to set up a “Clean Energy Incentives Dialogue” to coordinate their respective incentive programmes and avoid disruptions in transatlantic trade and investment flows.

The sheer size of the U.S. and EU incentives and the deep-pocket treasuries of these countries create a significant competitive advantage. Although Canada recently proved successful in attracting a major electric battery facility by Volkswagen (VW) by matching what would have been available under U.S. incentive programs, a subsidy bidding war is unsustainable in the longer term. Finance Minister Freeland warned on the margins of the spring meeting of the IMF that getting caught up in a global subsidy war would risk a “mutually sabotaging competition”.²⁴ More broadly, Canadian exporters that are unable to meet conditions of U.S. or EU fabricators seeking to take advantage of incentives with local content requirements may lose business opportunities.

In fact, there is growing global concern about a “race to the bottom” of treasury coffers. This is triggering discussion, including at the OECD and the WTO, about the need to distinguish between



desirable or acceptable subsidies (e.g., aimed to green the economy or to promote research and development) and damaging and unacceptable subsidies (e.g., solely to gain unfair competitive advantage). Realistically, it will be years before frameworks may be agreed that can recognize and differentiate subsidies based on their policy intent and effect, particularly in a world also focused on national security and economic security. One may expect continued messiness on the competitive field.

The Search for Diversification and Resilience

The response of governments and businesses to the evolving trade and investment environment is to de-risk international commerce and to build resilience, but this can also cause disruption and accentuate fragmentation. “Friend-shoring” is pursued in the name of reliability and resilience in sourcing and supply chains. It is spurred by over-dependence on China, Russia or unstable sources (e.g., Democratic Republic of Congo for cobalt), by risks of disruptions caused by war or disease, and by a desire to support common standards such as on climate. However, responses to such risks can take the form of new trade and investment barriers. For example, there is a rising incidence of export restrictions on lithium, cobalt and other materials.²⁵ According to the IMF, there is also an emerging pattern of foreign direct investment becoming increasingly concentrated among geopolitically aligned countries, particularly in strategic sectors.²⁶

Fragmentation is manifest through the creation of multiple clubs or coalitions, even short of formal trade agreements, for preferred trade arrangements, with resulting variable geometry.²⁷ For example, under the U.S.-led Indo-Pacific Economic Framework (IPEF), 14 countries of the region (not including Canada) recently agreed in principle to strengthen supply chain resilience for critical items such as semiconductors and medicines.²⁸ Sector-specific, rather than geographically anchored, preferential arrangements are also likely to proliferate, e.g., on transborder data flows and digital standards, such as the Digital Economy Partnership Agreement. The U.S.-proposed “Global Arrangement on Sustainable Steel and Aluminum” noted in Box 4.1, under which adherents would offer preferential treatment to steel and aluminum produced in an environmentally sound manner, is a prominent example. Again as noted above, Canada is part of various working groups on critical minerals.

The result can be higher costs, reduced investment and new forms of protectionism. The G7 leaders stated that friend-shoring does not mean a decoupling with China. Indeed, as noted above, business with China is still expanding. Nonetheless, the shift of some supply to more reliable but in some cases less efficient sources, however justifiable for national security and economic security, comes at a cost. Moreover, calls for greater “self-sufficiency” can breed protectionism.²⁹

Box 4.2

CANADA-U.S. TRADE AND CUSMA

On March 1, the United States released its trade policy agenda for 2023. It eschews pursuit of formal trade agreement negotiations in favour of its Indo-Pacific Economic Framework, Americas Partnership for Economic Prosperity and the U.S.-EU Trade and Technology Council, with a view to advancing the Administration’s ‘worker-centered trade policy’ vision of growing and strengthening the middle class through global commerce.¹

With a presidential election looming in 2024, bipartisan support for “Buy America” preferences, vigorous enforcement of existing trade obligation and aggressive responses to China can be expected to continue.

In this environment, the Canada-U.S.-Mexico Trade Agreement (CUSMA) provides some stability for Canada with its most important trading partner. President Biden and Prime Minister Trudeau jointly underscored the strength of the Canada-U.S. partnership during the president’s state visit to Ottawa in March 2023, highlighting their commitment to embrace

clean energy technology and production and create good jobs, and to strengthen semiconductor supply chains, on a North American basis.

Nonetheless, there will be ongoing trade tensions in North America. Canada and the United States remain at odds over implementation of the CUSMA panel decision on automotive rules of origin, which the United States has thus far failed to implement. The United States has challenged Canada’s dairy tariffs for a second time under the agreement. And the United States and Canada together have registered concerns about Mexican measures governing energy and agricultural products, and recent amendments to mining and environmental laws.

With CUSMA subject to a review in three years’ time, the effectiveness of the agreement will likely be under increased scrutiny in Congress and the Administration as election season approaches in the United States.

1. 2023 Trade Policy Agenda and 2022 Annual Report of the President of the United States on the Trade Agreements Program, [https://ustr.gov/sites/default/files/2023-02/2023%20Trade%20Policy%20Agenda%20and%202022%20Annual%20Report%20FINAL%20\(1\).pdf](https://ustr.gov/sites/default/files/2023-02/2023%20Trade%20Policy%20Agenda%20and%202022%20Annual%20Report%20FINAL%20(1).pdf)



In Sum, Shifts of International Business, Fragmentation, But Not “De-Globalization”

There is evidence of shifting of production and sourcing in various sectors to increase diversification, reliability and resilience, and hence to de-risk international supply chains. Major firms are seeking to reduce their dependence on Chinese sources³⁰ and, conversely, Chinese exports are shifting increasingly to intermediate goods and to destinations within the region for further processing.³¹ The share of imports lost by China is being filled by countries ranging from Vietnam, Malaysia, and Thailand to India and Mexico. Moreover, as new frameworks, such as on sustainable steel production, are agreed, sourcing and supply will shift to within and between participating countries.

Shortening supply chains to reduce risk of disruption in transportation, to ease traceability and accountability, and to reduce the carbon footprint of production is leading to some “near-shoring” as well. For example, to serve the U.S. market, there is significant growth in investment in Mexican industrial properties, particularly close to the U.S. border, with dozens of new industrial parks either planned or under construction.

Some of the observed shifts in international commerce may over-state the reduction of underlying risk or the displacement of economic value. For example, some of the shifts of supply away from China may be to offshore facilities still owned by Chinese enterprises, and supplies sourced from other businesses in different parts of the world may include Chinese inputs or components.

With trade volume continuing to grow, albeit at a slower pace, “Re-Globalization” or “Globalization 2.0” are more apt descriptions of new patterns of trade and investment than “de-Globalization”. It would also be a mischaracterization to describe the world as one descending into blocs closed to each other, whether based on ideology, geography or level of development.

Lessons for Business Planning

The global trade and investment environment is fragmenting, with multiple causes. Of particular saliency is the rise of trade restrictions, or industrial subsidies, under the guise of national security, not just in the “West” but also throughout the world, including the global south. In strategic sectors, from critical minerals to high technology, a “silicon curtain” is descending down the Pacific. Restrictions on exchange of goods, services and technology, even if advancing valid policy or business objectives, can reduce efficiency and thus global (and Canadian) incomes.

For business exporters and importers, this can limit access to some markets, impose costs and pose added risks. Access to some markets is becoming more complex and more uncertain for many Canadian exporters. The efforts of businesses to diversify and to de-risk their supply chains (in some cases away from least-cost sources), or the policies of government to restrict some transactions or to establish tracing requirements, also add to the costs of doing business.

There will be opportunities in this new world, but fragmentation means that changes in global markets will not be smooth nor continuous. For Canadian businesses, existing trade agreements and various initiatives being advanced, such as the Indo-Pacific strategy, can support medium-term growth strategies. With the right policy framework, and with private investment as discussed in Chapter 5, Canada can also leverage its advantage in such domains as energy, critical minerals, and advanced technology (e.g., AI), to strengthen ties with global partners. However, industrial competition, driven by concerns about national security and economic security, as well as other risks to trading on a stable and level playing field, will require that governments and businesses remain alert to emerging pressures, and agile in their responses.

The lessons for businesses for both the short and medium term, are clear.

Table 4.1:

RISKS AND OPPORTUNITIES: FRAGMENTATION TO DE-RISKING AND RESILIENCE		
Issue	Risks of:	Opportunities to:
WAR IN UKRAINE	Continued supply chain disruptions	Increase demand for Canadian commodities, e.g., grains, potash
CHINA	Increased restrictions based on “economic security”, extraterritorial measures	Explore prospects for growth in two-way trade and investment in non-affected sectors
CLIMATE AND CARBON PRICING	Accounting for carbon footprint	Accelerate greening of supply chains
SUPPLY CHAIN DISRUPTIONS	Unanticipated events at home and abroad	Develop back-up and resilience plans
ESG ACCOUNTABILITY	Potential liability and multiple reporting requirements	Institute monitoring and reporting frameworks
DIGITAL SPACE	Cyber risks, competing and conflicting standards	Participate in multi-stakeholder standard-setting
WTO AND OTHER TRADE AGREEMENTS	Overlapping and competing rights and obligations, different tariff schedules	Utilize most advantageous sourcing of inputs and export markets

These risks and opportunities mean, for the short term: back-up planning.

In a fragmented and uncertain world, with shifts in supply chains, widespread risks of disruptions, and increased demands for accountability (e.g., ESG), there is a premium to back-up planning. Yet, there are large gaps. A recent survey of 100 original equipment manufacturers (OEMs) in the high-tech, auto and consumer goods industries, reviewing first- and second-tier suppliers to the OEMs across 12,000 U.S., Chinese and Taiwanese production sites, reveals that 80% of all sites in the United States and 46% of all sites in China and Taiwan have either no business continuity plan, or no alternative manufacturing sites lined up in the event of disruption.³²

Steps for Canadian businesses that can buy insurance and generate early dividends include:

- knowing your suppliers, their place of production, and their investors, as well as your customers;

- weighing the administrative costs and benefits of utilizing the lower tariffs available under Canada’s trade agreements—the detailed review of tariffs, under different agreements, considering Canada’s network of free trade agreements, and the appropriate classification of the origin of the good, be it a final product or input, may provide savings that more than offset the costs;
- staying alert to, and pro-active with government, on rapid regulatory change (e.g., sanctions), both at home and abroad.

These risks and opportunities also mean (for the medium term) de-risking strategically.

Steps to factor trends and risks in global trade and investment into strategic business planning and risk management, include:

- developing detailed knowledge of the origin of intermediate goods, services and technology, including those that themselves may incorporate inputs that are subject to restrictions or that originate from places subject to sanctions or restrictions;



- mapping out potential investments, supply chains and business partners (e.g., co-venturers) and balancing carefully objectives of reliability, sustainability and cost-competitiveness;
- assessing and managing political risk to business relationships, building contingency but also recognizing, for example, that the majority of commerce from and with China, including as part of third-country supply chains, is likely to continue without new barriers;
- advocating and engaging with governments, and building business relationships, both home and abroad, as a front-end investment toward target outcomes; and
- anticipating and preparing for regulatory changes, such as on carbon pricing, ESG reporting and supply chain accountability, with a view to having systems in place.

For governments, federal and provincial, while safeguarding national security and advancing priority policy interests, there must remain a focus on ensuring that Canadian businesses have access to export market opportunities and to competitively priced imports. Partnership and dialogue with business in both negotiations and international business promotion are key.

V. Closing Canada's Investment Gap:

Getting the Framework Right

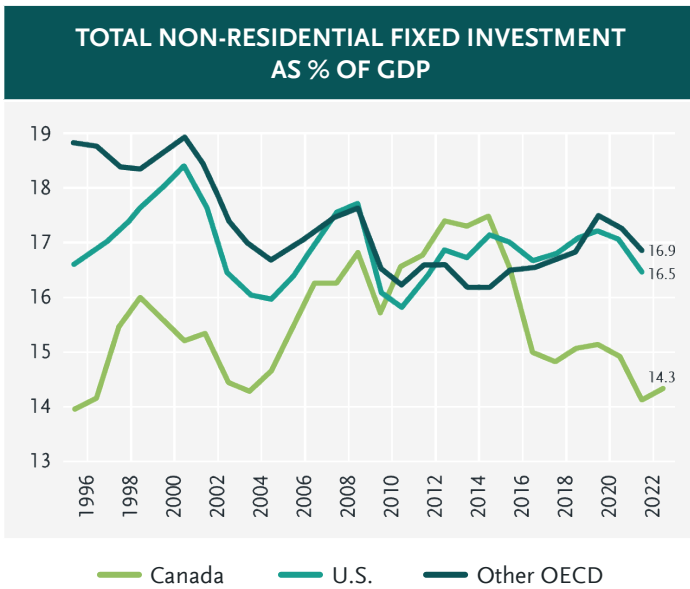
As a priority for the medium term, Canada must ramp up investment to better equip workers, to adapt and grow our economy in a period of population aging, climate change and rapid technological innovation, and to compete globally. Yet, progress remains elusive and prospects uncertain. The recovery from the pandemic has been supported by strong consumption, with robust job creation. Non-residential business investment, which has trended down in Canada since 2014, remains weak. Canada continues to under-invest compared with the United States and the average of OECD countries. The task is to raise investment as a share of our national income. In Budget 2023, partly in response to the U.S. *Inflation Reduction Act* (IRA), the Government of Canada doubled down on instruments of industrial policy to bolster investment in the energy transition. Given the long lead times to plan, assess and execute large projects, the public and private sectors will need to align on a framework for execution, including improved regulatory clarity and efficiency. Even if this effort is successful, it will not suffice. There must be an economy-wide effort to stimulate investment, innovation and the deployment of digital technology. The answer is not more targeted tax credits. Competition, business frameworks for the digital economy and a tax structure that incentivizes investment relative to consumption will be the critical levers. It is a set of self-reinforcing policies and business strategies, not any discrete measure that will make a difference.

A Well-Documented Investment Gap

It bears repeating that Canada is under-investing in productive capacity, relative to the early to mid-2000s, and relative to the United States and other OECD economies, as a share of GDP and per worker. Specifically, Canada's non-residential (public and private) fixed investment as a share of GDP is some 2 to 3 percentage points below both the peak reached in 2014 before the collapse of oil prices, and the more consistent results year-on-year in the United States and the average of other OECD economies (Chart 5.1). As a rough gauge, this represents an annual investment gap of some \$60 billion to \$90 billion. A commentary by the C.D. Howe Institute, focused on business investment per worker, paints the gap in stark terms: "the average member of Canada's labour force began 2022 with less capital to work with than she or he had in 2015".¹ The C.D. Howe researchers estimate that Canadian businesses are investing \$11,000 less per available worker annually than their U.S. counterparts; the estimated gap with other OECD economies is some \$5,600. This investment gap is holding back Canada's productivity, competitiveness, and growth potential.



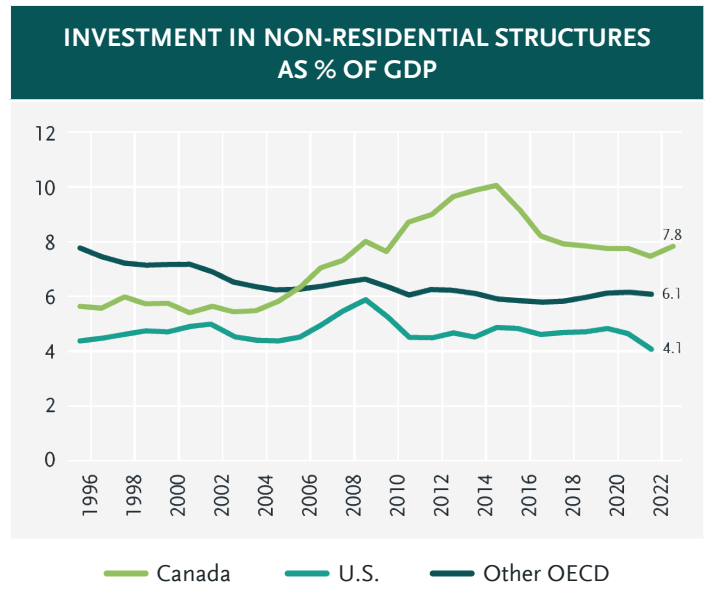
Chart 5.1:



Source: OECD.Stat. "Other OECD" comprises the European Union, Japan, United Kingdom and Australia.

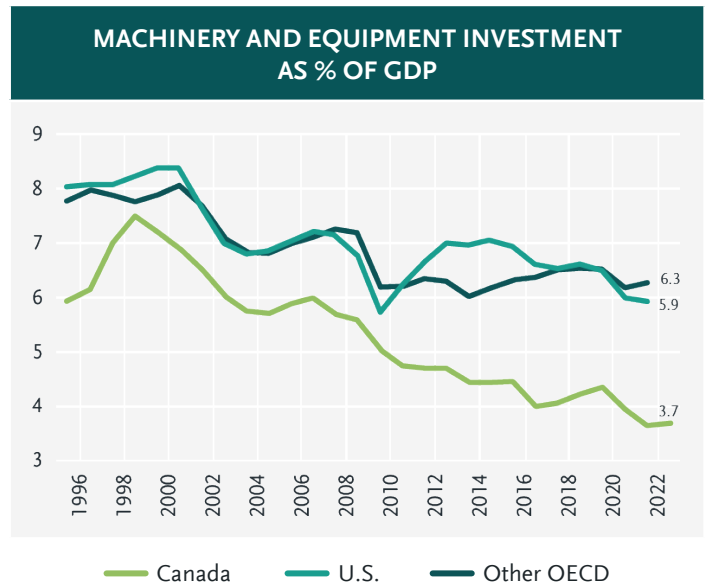
It is also well-documented that Canada’s performance relative to global peers is grossly deficient for investment in machinery and equipment (M&E) and intellectual property products (IPP) that are key drivers of productivity growth. It is perhaps intuitive that investment in non-residential structures—buildings and engineering structures—dropped in Canada after 2014 because of the effect of a lower oil price on investment in the upstream energy sector (Chart 5.2). Despite this drop, Canada still compares well with our peers for this category of investment, because of our economic structure. However, there is no intuitive explanation for trends in M&E and IPP investment as a share of GDP that have caused gaps with the United States and other OECD countries to increase measurably since the GFC (Charts 5.3 and 5.4). The C.D. Howe Commentary reveals the same gaps and trends for M&E and IPP on a per worker basis.

Chart 5.2:



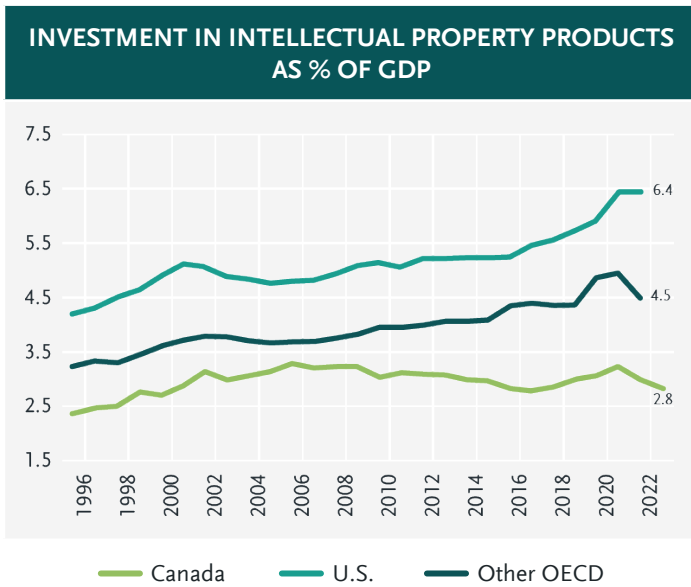
Source: OECD.Stat. "Other OECD" comprises the European Union, Japan, United Kingdom and Australia.

Chart 5.3:



Source: OECD.Stat. "Other OECD" comprises the European Union, Japan, United Kingdom and Australia.

Chart 5.4:

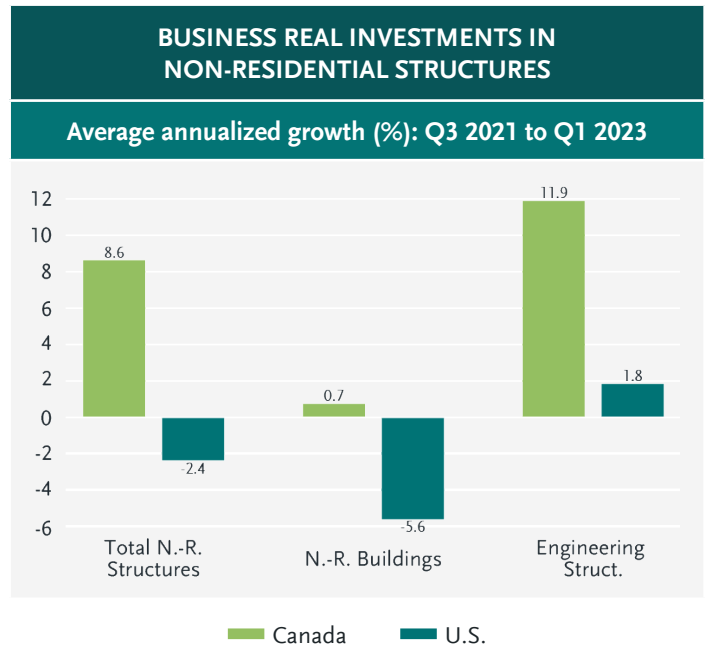


Source: OECD.Stat. "Other OECD" comprises the European Union, Japan, United Kingdom and Australia.

No Significant Improvement in Recent Quarters

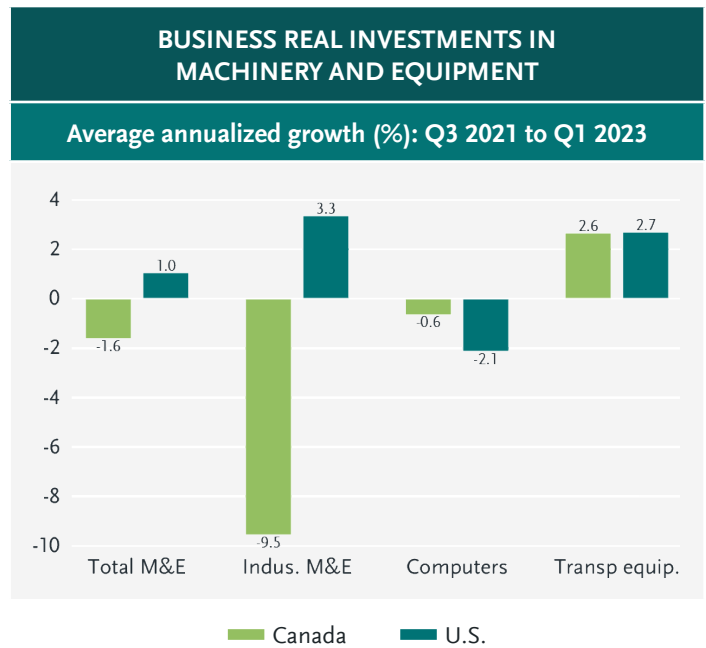
Since mid-2021, after the economy regained its losses from COVID, there has been robust growth in investment in non-residential structures in Canada, but investment in M&E and IPP, and in key components thereof, has been sluggish or declining, against generally better performance in the United States. Acceleration of work on major projects such as the TMX pipeline and Canada LNG and related infrastructure has contributed to growth of 11.9% at an annual rate in engineering structures (Chart 5.5). However, investment in industrial M&E is down 9.5% at an annual rate, compared with a gain of 3.3% in the United States; for computers, the drop in Canada is 0.6%, in this case better than a U.S. drop of 2.1% (Chart 5.6). For IPP, growth of investment in research and development (2.2% vs 4%) and software (0.3% vs 11.1%) also lags results in the United States (Chart 5.7). As discussed in Chapter 2, over the past quarters, growth of employment has outstripped growth of real output such that productivity—output per hour worked—has declined. While this is also true in the United States, it is more accentuated in Canada.

Chart 5.5:



Sources: U.S. Bureau of Economic Analysis and Statistics Canada table 36-10-0108-01.

Chart 5.6:



Sources: U.S. Bureau of Economic Analysis and Statistics Canada table 36-10-0108-01.



Chart 5.7:



Sources: U.S. Bureau of Economic Analysis and Statistics Canada table 36-10-0108-01.

Long-Term Consequences for Our Standards of Living

The investment gap is a critical handicap for Canada at a time when, like its peers, it must address population aging, transform the energy system, accelerate innovation and digitalization, and raise productivity growth. The diagnostic has been established over time by many organizations, researchers and indeed by governments. In its latest review of Canada, the OECD observes that, “Weakening productivity and investment performance echo a longstanding concern that Canada is not tapping as successfully as some other economies into opportunities to increase output through capital deepening and innovation in products and processes.”² In Budget 2022, the Government of Canada recognized that: “The stakes are high. Most Canadian businesses have not invested at the same rate as their U.S. counterparts. Unless this changes, the OECD projects that Canada will have the lowest per-capita GDP growth among its member countries.”³

Against this diagnostic, and given the high stakes, expansion of investment is an overriding priority for Canada, requiring that government policies and business strategies together aim for more intensive innovation, capital deepening, decarbonization and productivity growth.

An Industrial Strategy for a Low-Carbon Economy

Budget 2023 introduced and expanded a range of instruments of industrial policy to stimulate investment in a clean economy and to compete with fiscal incentives in the U.S. IRA. As part of a deliberate industrial strategy, the government committed \$18 billion over four years, on top of existing and previously announced measures, to promote energy sources, technologies and supply chains identified as critical for Canada’s economic future. Measures include new tax credits for clean electricity, clean hydrogen and clean technology manufacturing (for example, critical mineral processing or nuclear technology), with enhancements to the previously announced tax credit for carbon capture utilization and storage (CCUS). The government reaffirmed program support for the development of critical minerals, investments in EV and batteries, and the supply of clean fuels. It reinforced the role of the Canada Infrastructure Bank in advancing clean electricity and net-zero projects. It further announced that the Public Sector Pension Investment Board will manage the \$15 billion Canada Growth Fund to attract private capital to invest in Canada’s clean economy. Overall, since Budget 2021, TD Economics estimates that the Government of Canada has committed \$139 billion in total spending over approximately 10 years in support of climate policy, equivalent to 5% of Canada’s nominal GDP. This exceeds proportionately the cost of incentives under the IRA, estimated by U.S. authorities at US\$393 billion or 1.5% of U.S. nominal GDP.⁴

The commitment of public funds is material and arguably necessary to compete not only with the IRA and the United States, but with other jurisdictions in Europe or Asia that also are pursuing competitive advantage through industrial strategies. Industry has been pursuing fiscal supports for projects in the clean economy that are not otherwise commercially viable. Similarly, international investors expect support for locating in Canada facilities that could be located elsewhere in North America or globally. Thus, the fiscal incentives can be instrumental. Certainly, this was the case for the investment announced by VW in March, 2023 of its first overseas “gigafactory” in St. Thomas, Ontario. The \$7-billion investment is supported by a federal battery production incentive that matches benefits under the IRA, at a potential cost of up to \$13 billion by 2032. Landing the investment required not only federal fiscal support, but also investment from the province of Ontario and collaboration among all levels of government.

An industrial strategy founded on targeted incentives will likely help stimulate investment, in particular for engineering structures and for some manufacturing equipment, but there are no guarantees, given uncertainty, risks and potential headwinds for investors.

- **The uncertain economic prospects.** Tight labour markets, high inflation and interest rates inflate costs and weaken the economics of projects. Risks of recession or weaker growth potential over the medium term can also affect the confidence and risk tolerance of investors and reduce the amount of private capital available for business investment.
- **The uncertain economics of projects.** The prospective returns of clean energy projects are a function of a complex set of factors that include the price of energy commodities (as a benchmark), the price of carbon as determined by policy and by markets (for example, through

ESG-driven investment), market demand and price (e.g., for hydrogen), the state of readiness of the technology for deployment at scale, the build-up of the enabling infrastructure (e.g., for transportation and trade), the development of supply chains, and the security of supply of critical materials. Project risk is difficult to assess amid a wider transformation of the energy system. Budget 2023 indicated that the Canada Growth Fund will partner with private investors to mitigate some risks, for example through contracts for difference that would backstop the future price of carbon or hydrogen. However, there will be limits to risks that can be absorbed by the public sector.

- **The uncertain regulatory path and timeline.** Large energy, infrastructure or mining projects (e.g., clean electricity generation and transmission, small modular reactors, critical mineral mining projects) require review, approval and permitting by regulators as well as consultation with Indigenous peoples. Together with the planning and development of projects, the regulatory reviews and Indigenous consultations represent years of lead time and large costs for proponents. A recent report by the Canada West Foundation shows that three and a half years after the federal *Impact Assessment Act* has come into force, progress is slow and almost all projects are still in the early stages of assessment.⁵ The adoption in 2021 of the federal *United Nations Declaration on the Rights of Indigenous Peoples Act*, raises added questions about expectations and standards for Indigenous consultation. Uncertain timelines, uncertain standards and uncertain conditions for approval of projects can deter investors. In Budget 2023, the government announced that, by the end of 2023, it will outline a concrete plan to improve the efficiency of the impact assessment and permitting processes, which will include clarifying and reducing timelines,



mitigating inefficiencies, and improving engagement and partnerships. Follow through will be critically important given recent steps by the U.S. Congress and by the European Commission to sharply accelerate review processes.⁶

Bolstering investment and accelerating the decarbonization of the economy will require close collaboration between the public and private sectors and alignment on a plan for execution.

For example, the decarbonization and the expansion of the electrical grid is a critical part of building a clean economy. Scenarios for a net-zero economy internationally and domestically suppose a doubling or tripling of capacity, concurrent with the shift to non-emitting generation. Federal regulation (including a forthcoming Clean Electricity Standard) and federal incentives (including tax credits now extended to publicly-owned utilities) will operate through the actions of public or private utilities, other investors (e.g., in renewable generation), and provincial governments and regulators that will lead or oversee system planning and the execution of projects.

Investments in the clean economy will have to be advanced on a path that will maximize value earned by Canada through the energy transition. This means taking into explicit account two critical sources of value.

- **Energy security for Canada and its economic partners and the value earned from exports of hydrocarbons.** There should be careful deliberation among governments and industry about the path to net-zero that best serves the interests of Canada in a world that still requires hydrocarbons and that values security of supply. For example, an important question is the place of Canada in the global LNG industry. The LNG Canada Phase 1 project is moving forward, and the Government of Canada approved in March 2023 the Cedar LNG project after the

Government of British Columbia issued an Environmental Assessment Certificate. However, to date, for partners in Europe and Asia looking to Canada for added, reliable, long-term supply of LNG, the answer has been uncertain at best. A recent study by RBC sets out three scenarios for LNG in Canada, with investments over the next 40 years ranging from \$10 billion to over \$200 billion, depending on policy and business choices.⁷ Likewise, the path to net-zero can mean very different profiles of supply, investment, emissions, but also contribution to economic growth and government revenue from the oil and gas industry. The benefits, costs and risks of alternative paths to net-zero should be as explicit and transparent as possible to inform policy and business choices.

- **The value to be realized from innovation, intellectual property and services trade in the energy transition.** Investments in the clean economy involve in large proportion the development and deployment at scale of technology that is already commercialized globally and/or that is owned by foreign suppliers (for example, wind turbine technology). However, economic dividends will be maximized where projects or parts thereof involve the development of new Canadian technology that is commercialized in Canada and internationally. Canada's balance sheet includes tangible but also intangible (intellectual property) assets, and large public and private investments should be utilized to the greatest extent to expand both types of assets. If Canadian businesses, in advancing on a path to net-zero, develop expertise and intellectual property in domains like hydrogen, CCUS, small modular reactors, EVs or critical minerals, they will be able to extract extra value in global markets. There is a distinction to make between supply chains, which track the movement of goods, and value chains which track where value

is realized. For example, owning and licensing hydrogen-related technology globally can generate net value beyond producing and selling the commodity in domestic and export markets.

Innovation and Digitalization to Be Pursued Economy-Wide

The transition to a clean economy, properly executed, may move the needle on our investment performance, but governments and businesses need to respond to a wider set of forces for long-term success and collaborate on action plans.

The traditional tools of industrial policy cannot be multiplied economy-wide; fiscal costs and economic distortions will be prohibitive. Rather, governments have to rely on competition, clear and modern rules of the game, and an efficient tax structure to stimulate investment. There is a defensible role for targeted fiscal incentives where, because of policies of competitors such as the IRA, there is a serious risk of capital flight in some key industries or activities. There is also a case for targeted support of some activities, such as research and development; on this point, Budget 2023 states that the government is consulting on ensuring that the Scientific Research and Experimental Development Tax Credit is providing adequate support and improving the development, retention and commercialization of intellectual property. However, as a foundation for a vibrant and competitive economy, there is no substitute for sound market framework policy that allows market forces to determine the best allocation of capital.

Like the energy transition, but much faster, digitalization is transforming the economy, shifting where and how value is created, opening up opportunities but also posing new risks, and demanding rapid responses in policy frameworks and business strategies. Yet, our policy frameworks are slow to take the full measure of an economy where data is a strategic resource, intangible assets

represent a rising share of enterprise value and strategic capital, and computers, networks and AI, deployed globally, are ever more powerful and impactful. Low rates of investment in Canada may convey that our businesses are also slow to evolve where, because of wage moderation or domestic protections, they are able to generate healthy profits despite a low intensity of innovation. The cost of slow responses or complacency is likely to rise as technological change and digitalization transform business models and markets worldwide.

Competition is a powerful lever to incentivize businesses to invest, and many policies deserve re-examination to ensure they are fit for purpose in today's economy. There is no greater incentive for businesses to innovate and to invest than the threat posed by a competitor. For the past decades, trade and investment liberalization has been an instrument of choice to stimulate competition in the domestic market and to give our businesses access to larger markets. There are continued dividends to be earned by businesses expanding their global footprint and, as discussed in Chapter 4, by Canada pursuing stronger trade and investment relationships with partners, for example in the Indo-Pacific. However, there is a complex set of forces at play as the world becomes more fragmented, and as the large economies implement more interventionist policy. Globalization has led to industrial concentration that can diminish the benefits of open markets for trade and investment and opportunities for emerging firms. This is particularly true in the digital space where tech giants leverage network economies and deploy aggressive strategies to suppress or acquire firms that constitute a competitive threat. The race for leadership in platforms and applications for generative AI is an illustration of the risk posed by concentration and scope for abuse by dominant firms that is confronting competition policy and enforcement authorities in the United States, the EU and globally. In this world, safeguarding



a competitive marketplace and incentivizing businesses to invest is complex, and it means revisiting a suite of policies that are outdated and inadequate.

Governments have to consult, engage with businesses, and be responsive to global forces, while also challenging vested interests and policies that can hold back competition and breed complacency.

The first comprehensive review of the *Competition Act* since 2007-08, launched in November 2022, can lay some groundwork for more effective competition policy and enforcement.

In its discussion paper, the government notes that “peer countries are already well down the road towards re-examining their frameworks and approaches to competition policy in light of the digital economy.”⁸ The government is considering, for example, means to better address potentially harmful mergers, remedy anti-competitive conduct, such as abuse of a dominant position, notably with regard to large online platforms, and allowing private parties to bring cases before the Competition Tribunal for abuse of dominance, so as to supplement public enforcement. In its submission to government, the Competition Bureau noted: “[Canadians] view our competition policy framework as outdated, weak, complex, slow, and out of touch. And they are not wrong.”⁹ The Competition Bureau made a series of recommendations that the government will be reviewing alongside other submissions. An overriding goal of reform should be more competitive markets that can drive innovation and investment and deliver to Canadians better goods and services, at better prices.

Pursuit of more effective competition also requires reassessing other laws and regulation, like foreign investment rules, sectoral regulation, supply management or internal trade barriers, taking into account objective results and new economic realities. In its submission, the Competition

Bureau expresses the challenge aptly: “We note, however, that a robust competition policy agenda would also include a broader whole-of-government commitment to competition, including a coordinated effort to eliminate unnecessary regulatory barriers to competition and internal trade at all levels of government, and to hardwire pro-competition thinking into future policymaking.” In such sectors as financial services, telecommunications, aviation, agriculture or professional services, regulation is extensive. There are legitimate reasons for regulation, but trade-offs have to be reassessed when the world is changing profoundly and when Canada is falling behind its global peers on critical metrics, particularly investment and productivity growth.

This requires smart regulation. Not unbridled competition or ownership rules that could hand over critical sectors of our economy to foreign owners without accelerating investment and improving services to consumers, nor a free pass for new entrants. Rather, policies that aim to raise the level of intensity of competition, enable access to market disruptors willing to take risks, and ensure that the market may reward investment and innovation. The government announced in February 2023 the coming into force of a new policy directive to the Canadian Radio-Television and Telecommunications Commission, “to put in place new rules to improve competition and support consumers, leading to lower prices and better telecommunications services for Canadians.”¹⁰ The litmus test will be not only competitive rates, but a stream of investments in capacity that can ensure availability of world-class services for households and businesses across the country. A singular focus on rates, without market incentives for higher, sustained investment, would be misguided.

Internal trade should be low-hanging fruit, yet progress in dismantling non-tariff barriers (NTBs) is desperately slow. Our internal market is a

regulatory morass. In its 2019 review of Canada, the IMF noted: “Staff analysis suggests internal trade barriers are significant in most Canadian provinces, and lowering NTBs could increase real GDP per capita by almost 4 percent—a much larger gain than expected from recently-signed international trade.”¹¹ Judgements of the courts over the years have severely constrained legal avenues to expand broadly the free flow of goods and services across the country. Progress can only be achieved cooperatively, such as under the 2017 Canada Free Trade Agreement. The Government of Canada is striving to move the yardsticks, for example by advancing a framework for the mutual recognition of regulatory standards. But movement is slow as provinces and territories remain stubbornly parochial in their approach to regulation. Clearly, there needs to be greater provincial leadership and ambition.

Investment in the digital economy also requires modernization of other policy frameworks and clear rules of the game. A companion paper to the *Digital Charter Implementation Act, 2022* (Bill C-27), set out a valid goal: “If Canada’s advanced data economy is to thrive, it needs a corresponding framework to enable citizen trust, encourage responsible innovation, and remain interoperable with international markets.”¹² It could have added a requirement for some urgency in doing so. The Bill was tabled on June 16, 2022, and it was referred to the Standing Committee on Industry and Technology only on April 24, 2023. The Bill proposes to update and add to the *Personal Information Protection and Electronic Documents Act* that regulates how private-sector organizations can collect, use or disclose personal information in the course of their commercial activities. The new framework is proposed years after the EU implemented the General Data Protection Regulation that is a global reference. Indeed, some provinces have stepped in front of the federal government in updating their own privacy regime. At the same time, through a

proposed *Artificial Intelligence and Data Act*, the Bill purports to position Canada as one of the first jurisdictions globally to establish a framework to regulate the design, development, deployment and operation of AI systems. The companion paper explains that as Canada is home to 20 public AI research labs, 75 AI incubators and accelerators, 60 groups of AI investors, and over 850 AI related start-up businesses, it is proper to be proactive in mitigating risk and preventing harm while supporting responsible innovation. This said, even if adopted, the new Act will be a framework requiring follow-on consultations and then details in regulation.

To support investment, policy initiatives for the digital economy have to be broadly aligned with those of global partners and our regulators have to collaborate closely with their global peers. For that reason alone, in matters like competition, privacy or AI, as described above, or financial services and taxation, as discussed below, Canada cannot afford to be out of step with other key jurisdictions. It needs modern rules and enforcement tools, including means of collaborating with foreign regulators, to ensure that we play a role in the governance of what is to a large extent a borderless market and that we are able, in the process, to safeguard Canada’s interests.

In the financial services sector, that is important in its own right and that has influence on savings and investment across the economy, Canada lags other jurisdictions in adapting its laws, institutions and regulation to the opportunities of digitalization. Policy exercises are underway, but the pace is slow and there is no overarching plan. In December 2011, a Task Force for the Payments System Review found that “unless Canada develops a modern digital payments system, Canadians will be unable to fully engage in the digital economy of the 21st Century, leading to a lower standard of living across the country and a loss in international



competitiveness.”¹³ More than 10 years later, Payments Canada and the Government of Canada are late in implementing a new payments system (the Real-Time Rail) that will allow faster and more secure digital payments and that will be a platform for new competitors. Five years after former Minister Bill Morneau launched an Advisory Committee on Open Banking, Finance Canada is still consulting on a system that would enable consumers to share their banking data securely with other providers, for example fintech firms. The Bank of Canada is proceeding prudently on the question of a central bank digital currency (CBDC). It launched a public consultation on May 8, 2023, while noting that “at this time, a digital Canadian dollar is not needed. And any decision to issue one rests with Parliament and the Government of Canada”.¹⁴ Three workshops co-hosted by Bennett Jones and the Centre for International Governance Innovation, bringing together international and Canadian experts, reveal promising initiatives internationally on digitalization of financial services and prospects to deliver tangible benefits.¹⁵ Delays in Canada are attributable to many factors, including the desire of incumbent financial institutions to protect legacy systems and lucrative markets. The government and parliamentarians have to overcome such resistance, deliver on payments reform and open banking, and engage early on the next generation of innovation, including a CBDC, to safeguard and enhance our financial system. Given their responsibilities in the industry, provinces have to be part of the effort.

The tax system is a powerful instrument to influence decisions to save and to invest, and the time is right to assess the tax structure and how it can assist a shift from consumption to investment.

Tax credits such as introduced and expanded in Budget 2023 can stimulate investment, but they also mean a loss of government revenue. Over time, the multiplication of targeted tax measures also results in a more complex and distorted tax structure that can impede the performance of the economy. For Canada, the most recent series of measures targeted the clean energy space, in large measure to compete with the IRA. But Canada cannot overlook other investments driving innovation and productivity growth, including IPP and digitalization. More targeted tax incentives are unlikely to be the answer. The preferred course is a tax structure that creates a stronger incentive to invest across the board, financed by measures that will bear on consumption. Within the corporate income tax system, there can also be a trade-off between support for investment at the front end (for example, a broad-based tax credit), or at the back end (a lower rate of taxation); the two approaches imply a different sharing of risks and rewards between the investor and the government. The last major reform of the income tax system was in the late 1980s. While tax reform is a perilous political exercise at the best of times, there needs to be an informed discussion of how tax is affecting investment, innovation and productivity growth in today’s economy. This discussion should take into account global developments, including work in the OECD and the G20 toward establishing a minimum corporate income tax and addressing base erosion and profit shifting (the so-called “two-pillar” international tax package).

Placing the Bottom Line in Stark Terms

On the current course, given structural trends and our investment performance, Canada may invest considerable fiscal resources, generate some investment, but still lag global peers, fall behind in global competitiveness, and experience a slow erosion of living standards. Poor investment in Canada not only deprives our economy of growth opportunities, it means that our firms lag their global peers in their capacity to conquer global markets, and that they may fail to take advantage of the vast possibilities permitted by our trade agreements with major economies. More competition at home that stimulates stronger investment will position our firms to win globally. Protected markets and poor incentives for investment in Canada will do the opposite.

The bottom line is that Canada needs to raise the investment share of GDP—both to accelerate productivity growth by equipping workers with more and better tangible and intangible capital, and to position Canada to compete globally on the path to a clean economy. This involves some targeted measures to ensure that Canada may gain a foothold in emerging critical industries and technologies. Beyond one-off measures, and economy wide, it requires mainly framework policies, including competition, regulation and taxation, that are mutually reinforcing and that will incent innovation and the investment, and reinvestment, of the retained earnings of firms. Raising the investment share of national income will reduce necessarily the share available for current consumption, but provide a foundation for long-term prosperity.



Notes

Chapter 1

1. World Trade Organization, *Global Trade Outlook and Statistics*, April 2023.
2. See Chapter 3 of *April 2023 World Economic Outlook*.
3. See interesting debate between economists Olivier Blanchard and Lawrence Summers sponsored by the Peterson Institute of International Affairs, <https://www.piie.com/events/summers-and-blanchard-debate-future-interest-rates>.
4. International Energy Agency, *Net Zero by 2050 - A Roadmap for the Global Energy Sector*, May 2021.

Chapter 3

1. A detailed analysis is provided in our complete paper: *Labour Force Growth and Labour Market Gap in Canada : 2011 to 2032*, see <http://bennettjones.com/Labour-Force-Growth>
2. Statistics Canada produced six medium-growth projections, which differ from each other only by their assumption about internal migration. Given our exclusive focus on Canada as a whole in this exercise, it does not matter which one of the six medium-growth projections we use. See Statistics Canada, <https://www150.statcan.gc.ca/n1/daily-quotidien/220822/dq220822b-eng.htm>.
3. Bersin and Chamorro-Premuzic, *The Case for Hiring Older Workers*, Harvard Business Review, September 2019
4. David Dodge and Richard Dion, *Labour Force Growth and Labour Market Gap in Canada : 2011 to 2032*, see <http://bennettjones.com/Labour-Force-Growth>
5. Lotin, Mahboubi, *Immigration Surges Past One Million – Canada Need a Real Count and a Real Plans*, CD Howe Institute, April 17, 2023.
6. Although not a pre-requisite, the applicant will typically have an offer of Canadian employment. It should also be noted that in 2022, no candidate from the skilled trade class were extended invitations.
7. Also not discussed in this chapter is the unique immigration system in Quebec.
8. This chart was prepared by Garnet Picot and M. Skiterud, April 19, 2023, based on the following data sets from Immigration, Refugees and Citizenship Canada: https://www.cic.gc.ca/opendata-donneesouvertes/data/IRCC_PRadmiss_0002_E.xls and https://www.cic.gc.ca/opendata-donneesouvertes/data/EN_ODP-PR-ProvImmCat.xlsx.
9. Hou, Crossman, Picot, *The Two-Tier Immigration Selection: Recent Trends in Immigration Market Outcomes*, Statistics Canada, July 22, 2020.
10. Higher level is defined using the ESDC NOC tables as NOC O, A or B.
11. The remainder of PNP candidates applied through the regular permanent residency stream.
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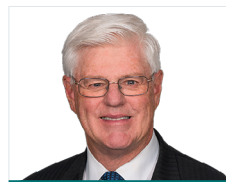
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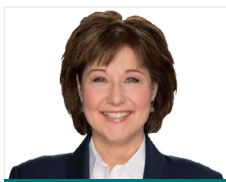
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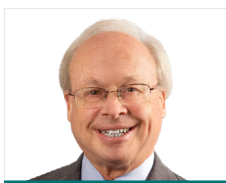
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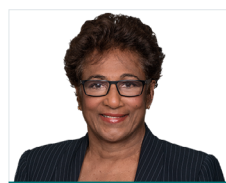
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