INTERNATIONAL MONETARY FUND

IMF Country Report No. 24/128

CANADA

2024 ARTICLE IV CONSULTATION—PRESS RELEASE AND STAFF REPORT

July 2024

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2024 Article IV consultation with Canada, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its July 10, 2024, consideration of the staff report that concluded the Article IV consultation with Canada.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on July 10, 2024, following discussions that ended on June 5, 2024, with the officials of Canada on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 25, 2024.
- An **Informational Annex** prepared by the IMF staff.
- A **Staff Supplement** updating information on recent developments.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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International Monetary Fund
Washington, D.C.

PRESS RELEASE

PR24/276

IMF Executive Board Concludes 2024 Article IV Consultation with Canada

FOR IMMEDIATE RELEASE

Washington, DC – July 16, 2024: The Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Canada.

The Canadian economy appears to have achieved a soft landing: inflation has come down almost to target, while a recession has been avoided, with GDP growth cushioned by surging immigration even as per capita income has shrunk. Housing affordability has reached its worst levels in a generation, with housing supply unable to fully meet growing demand. Meanwhile, the financial sector remains resilient, with banks well capitalized and liquid, although data gaps preclude a more definitive assessment of nonbank financial institutions.

Real GDP growth is expected to pick up slightly this year, supported by the recently initiated normalization of monetary policy, some easing of fiscal policy, continued (even if slowing) immigration, and the expansion of the Trans Mountain pipeline. Inflation is set to continue declining, reaching the 2-percent target by early 2025.

Risks around the baseline forecast are broadly balanced. An abrupt global slowdown could dampen Canadian growth and inflation alike, while tighter financial conditions could negatively affect the outlook. On the other hand, labor market resilience and stronger-than-anticipated US demand could lead to a stronger growth outlook.

Executive Board Assessment[2]

Executive Directors commended the authorities for their strong track record of sound policies and concurred that the Canadian economy appears to have achieved a soft landing, while inflation has declined to near target levels. They welcomed the expected pickup in growth in 2024 and considered risks to be relatively balanced. Directors noted important structural challenges, including relatively low productivity growth and the deterioration of housing affordability, which require ambitious and proactive policy efforts.

Directors welcomed the Bank of Canada's (BoC) decision to begin lowering policy rates in June, following its effective management of inflationary pressures in previous years. They emphasized that further rate cuts should continue to be carefully calibrated and data dependent, with the monetary policy stance remaining restrictive for a while. Noting important improvements in the BoC's communication strategy, Directors broadly supported additional enhancements to further improve BoC's monetary policy effectiveness.

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[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

[2] At the conclusion of the discussion, the Managing Director, as Chair of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm.

Directors commended the Canadian authorities for their prudent fiscal policy in international comparison, with Canada enjoying a AAA rating. They broadly considered that a somewhat tighter stance this year would support efforts to reduce inflation and rebuild buffers. Directors welcomed the introduction of quantitative fiscal objectives and most suggested that adoption of a formal fiscal framework would help anchor policy even more effectively. Continued coordination between fiscal and monetary policy remains imperative.

Directors agreed that the financial system remains resilient, with sufficient buffers to weather the repricing of low-interest, pandemic-era mortgages. They emphasized the need for continued vigilance and for efforts to address data gaps for nonbanks, including through enhanced federal-provincial supervisory cooperation. Welcoming recent progress, Directors supported continued efforts to strengthen the AML/CFT framework. They also encouraged continued implementation of the 2019 FSAP recommendations and looked forward to the 2025 FSAP.

Directors emphasized that boosting productivity growth is key for Canada's long-term prospects. They agreed that harnessing advanced technologies, reducing interprovincial barriers to trade, fully integrating immigrants into the labor market, and increasing female labor force participation (for instance, via the authorities' affordable childcare program) are key for strengthening living standards. Directors supported the authorities' actions to boost housing supply, while acknowledging that further efforts at all levels of government would be needed to close the sizeable housing gap.

On the climate front, Directors stressed that carbon pricing is the most cost-effective way to achieve Canada's ambitious climate goals. They acknowledged that green industrial policies could play a role but urged that care be taken to avoid trade distortions and to maintain a level playing field for all companies.

Canada: Selected Economic Indicators 1/

(Percentage change, unless otherwise indicated)

Nominal GDP (2022): Can$ 2,785 billion (US$ 2,139 billion) Quota: SDR 11,023.9 million
GDP per capita (2022): US$ 54,015 Population (2022): 39.6 million
Main exports: Oil and gas, autos and auto parts, gold, lumber, copper.

					Est.			Proj.		
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Output and Demand										
Real GDP	-5.0	5.3	3.8	1.2	1.3	2.4	2.0	1.8	1.8	1.6
Total domestic demand	-6.1	6.5	5.1	-0.3	1.4	2.9	2.3	2.1	2.1	1.9
Private consumption	-6.3	5.1	5.1	1.7	2.8	3.6	2.7	2.7	2.8	2.6
Total investment	-7.0	14.3	7.1	-6.0	-0.9	3.0	2.4	1.9	1.7	1.6
Net exports, contribution to growth	0.3	-1.8	-1.4	1.5	-0.2	-0.5	-0.3	-0.3	-0.3	-0.3
Output gap 1/	-3.4	-1.4	0.8	0.0	-0.6	-0.1	0.0	0.0	0.1	0.1
Unemployment and Inflation										
Unemployment rate (average) 2/	9.7	7.5	5.3	5.4	6.2	6.3	6.0	6.0	6.0	6.0
CPI inflation (average)	0.7	3.4	6.8	3.9	2.5	2.0	2.0	2.0	2.0	2.0
Saving and Investment 3/										
Gross national saving	20.7	24.3	25.0	23.3	23.4	23.4	23.1	22.8	22.5	22.2
General government	-6.8	0.7	3.4	2.6	1.8	1.9	1.9	1.8	1.9	1.9
Private	27.5	23.6	21.6	20.7	21.6	21.5	21.2	21.0	20.6	20.3
Personal	32.5	21.5	10.4	11.0	14.4	12.8	11.2	10.5	9.8	9.9
Business	-5.0	2.1	11.2	9.7	7.3	8.7	10.0	10.5	10.8	10.3
Gross domestic investment	22.7	24.3	25.4	24.0	23.5	23.5	23.5	23.5	23.5	23.4
General Government Fiscal Indicators 2/ (NA basis)										
Revenue	41.4	42.5	41.1	41.9	41.3	41.2	41.1	41.2	41.2	41.3
Expenditures	52.4	45.4	41.0	42.5	42.5	42.2	42.1	42.0	41.9	41.8
Overall balance	-10.9	-2.9	0.1	-0.6	-1.2	-1.0	-0.9	-0.8	-0.7	-0.5
Structural balance 1/	-8.2	-1.9	-0.4	-0.6	-0.9	-0.9	-0.9	-0.9	-0.7	-0.6
Gross Debt	118.2	113.5	107.4	107.0	104.9	102.1	100.1	98.4	96.8	95.2
Net debt	16.1	14.3	15.6	12.8	13.4	13.5	13.6	13.5	13.5	13.5
Money and Credit (Annual average)										
Household Credit Growth	5.2	10.8	9.9	5.0	3.6	3.5	3.5	3.5	3.5	3.4
Business Credit Growth	-0.9	-12.7	6.4	3.4	3.6	3.5	3.5	3.5	3.5	3.4
Balance of Payments										
Current account balance 3/	-2.0	0.0	-0.4	-0.7	0.0	-0.1	-0.4	-0.7	-0.9	-1.2
Merchandise Trade balance 3/	-1.8	0.1	0.7	-0.1	0.0	-0.1	-0.4	-0.7	-1.1	-1.4
Export volume (percent change)	-7.7	1.7	2.4	4.5	1.2	2.3	3.0	3.4	3.3	3.1
Import volume (percent change)	-7.0	8.8	5.8	-0.8	1.6	4.3	4.5	4.8	4.8	4.5
Terms of trade	-3.3	13.4	4.7	-6.0	0.5	0.8	0.0	0.0	0.0	0.0

Sources: Haver Analytics and Fund staff calculations.
1/ Percent of potential GDP.
2/ Percent.
3/ Percent of GDP.

INTERNATIONAL MONETARY FUND

CANADA

STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION

June 25, 2024

KEY ISSUES

Context. The Canadian economy appears to have achieved a soft landing: inflation has come down almost to target, while a recession has been avoided, with GDP growth cushioned by surging immigration even as per capita income has shrunk. Housing unaffordability has risen to levels not seen in a generation, with demand boosted by immigration and supply facing continued challenges to expansion.

Outlook and risks. Under the baseline, real GDP growth is projected to pick up in 2024:H2 as monetary policy normalizes, with headwinds coming from weaker global growth. Risks have become more balanced on both the external and domestic fronts.

Macro policy advice. The Bank of Canada's (BoC's) recent decision to begin lowering its policy rate was appropriate, and the monetary policy stance, which is expected to remain restrictive for a while, should continue to be carefully calibrated in light of incoming data. While debt and deficits are low in international comparison, a tighter fiscal position would be desirable to improve the consistency of the policy mix and support the BoC's efforts to bring inflation back to target, as well as to rebuild policy space in order to prepare for future downturns and address structural spending needs. Canada's recent introduction of quantitative fiscal objectives is welcome and could be followed by adoption of a formal fiscal framework to anchor fiscal policy even more effectively. The authorities' multipronged approach to address housing affordability is expected to yield results over time, but further efforts will likely be needed at all levels of government to address the large housing supply gap.

Financial sector. The financial sector is resilient, and—in the baseline forecast—should be able to weather the repricing of low-interest, pandemic-era mortgages. If, however, interest rates remain higher for longer or if employment conditions worsen substantially, then the wave of resetting mortgages could be more problematic, and supervisors need to remain vigilant. In addition, there is a need for faster progress on improving federal-provincial supervisory cooperation and addressing data gaps, especially regarding nonbanks.

Structural policies. Boosting Canada's lagging productivity growth—including by taking steps to promote investment and R&D, harness artificial intelligence (AI) and other advanced technologies (within appropriate guardrails), and capitalize on the green transition—is a key priority for the country's long-term prospects. Given skills gaps and demographic pressures, immigration remains a critical ingredient. The government's program to provide affordable childcare nationwide has the potential to boost female labor force participation appreciably, but only if efforts to increase the number of childcare facilities and educators are successful. Finally, on climate change mitigation, it remains critical to stay the course on carbon pricing, to ensure meeting Canada's decarbonization targets in a cost-effective way, while policies to promote Canada's green transition should continue to be carefully designed to avoid trade distortions.

Approved By
Luis Cubeddu (WHD) and Guillaume Chabert (SPR)

Discussions took place both in Ottawa and remotely via videoconference during May 2–June 5, 2024. The team comprised K. Mathai (head), A. Aghababyan, F. Díez, I. Gallardo, M. Ghazanchyan, L. Liu, S. Lizarazo Ruiz, F. Lutz, Y. Yang (all WHD), C. Ferrero (FIN), P. Grippa (MCM), and J. Quast (STA), with support from C. El Khoury, I. Thomas, and Y. Deng (all LEG) on AML/CFT issues. Additional administrative assistance was provided by J. Thangaraj (WHD). P. Jennings, R. Cunningham, and M. Villeneuve (all OED) joined many of the mission's meetings, and R. Valdés and L. Cubeddu (WHD) participated in the concluding discussions with Deputy Prime Minister Freeland and Governor Macklem.

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ANNEXES

CONTEXT

1. Macroeconomic imbalances are well on their way to resolution. Inflation is now back within the Bank of Canada's (BoC's) target range—albeit well above the midpoint—and on a downward path. Meanwhile, the economy slowed in 2023 without slipping into recession—supported by an historic post-pandemic surge in immigration, even as GDP per capita has shrunk—and there are signs of some recent pickup in demand and activity. Labor markets have remained relatively robust, with immigration bolstering employment growth, while unemployment has so far risen only slightly above the natural rate. Against this background, the BoC has recently begun to normalize monetary policy.

2. While immigration has been a key part of Canada's growth story, its recent rapid increase has brought some challenges, especially in terms of housing affordability. Immigration affects nearly all aspects of the economy (see Annex I), supporting output growth and filling labor market gaps, although integration challenges can emerge. In the case of Canada, while immigrants have boosted labor supply and likely moderated wage growth, they have also added to the demand for already scarce housing in the context of well-known supply constraints. The sharp increase in household formation is one among many factors that have pushed housing affordability to its worst level since the early 1990s.

3. Longstanding structural challenges remain. Canada continues to lag the US and some other peers in productivity growth and investment. While female labor force participation is already relatively high in international comparison, efforts are underway to boost this further through a national program of affordable childcare. Meanwhile, climate change challenges remain critical, in terms of both reducing emissions to meet climate goals and transforming the economy away from fossil fuels and toward greener activities, including those based on transition minerals.

4. The policymaking environment is increasingly complex. Polls show that the cost of living, housing affordability, and, increasingly, immigration are among Canadians' top concerns. Prime Minister Trudeau's Liberal Party lacks a majority in Parliament and is supported from the outside by the New Democratic Party, which has championed progressive initiatives including a universal prescription drug benefit. At the same time, the opposition Conservative Party—which has, *inter alia*, called for an end to retail carbon pricing—has opened up a lead in the polls, and federal elections are due by October 2025.

RECENT DEVELOPMENTS

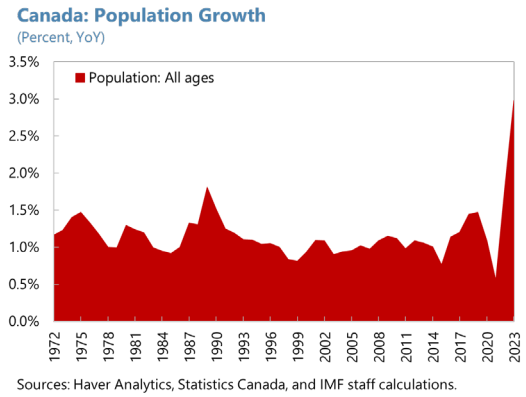
5. Growth slowed during 2023, and inflation moderated further on the back of tight monetary policy:

- Real GDP growth slowed from 3.8 percent in 2022 to 1.2 percent in 2023, driven by a slowdown in private consumption and a contraction in private investment, with offsetting effects coming from an expansion in net exports supported by strong US domestic demand. While Canada grew

faster than other G7 economies except the United States, much of this relative strength was explained by strong immigration. In fact, a small negative output gap has opened, and income per capita shrank by 1½ percent in 2023, more than in peers, reflecting the mechanical effect of immigration but also echoing Canada's longstanding problems with productivity growth (see Figure 1).

- Annual headline inflation has fallen from a peak of 8 percent in mid-2022 to 2.9 percent in May 2024, just within the target range of 1–3 percent, on account of a softening in domestic demand from the BoC's decisive monetary tightening (see ¶9), while measures of core range between 2.8 and 2.9 percent. That said, shelter inflation remains high (6.4 percent y/y), given the rise in house prices, rents, and mortgage rates, and wage growth remains strong despite immigration. Consumers' near-term expectations have shown only sluggish improvement even as actual inflation has declined, while businesses' expectations have been normalizing more appreciably (see Figure 2).

6. Labor markets have remained relatively robust in the context of surging immigration. Canada saw a net increase of more than 1 million temporary immigrants since the end of the pandemic, with population growth spiking in 2023 to 3.2 percent, the highest rate since the late 1950s (see Figure 3). The increased supply of foreign workers filled a need in the labor market and supported near-term growth, while likely moderating wage increases.[1] This integration has been supported by relatively robust employment growth, consistent with falling vacancy-unemployment ratios (from a mid-2022 peak of 1.0 to 0.5 recently; see Figure 4). That said, the unemployment rate has risen (to 6.2 percent, slightly above the NAIRU, estimated at 6 percent), and is higher still among the young (11.7 percent), suggesting some emerging softening in the labor market. Meanwhile, wage growth has remained strong—in the 4–5 percent range depending on the measure chosen—likely bolstered by collective bargaining agreements, with real wage increases exceeding productivity growth since mid-2023. To meter temporary immigration, the authorities recently capped student and temporary worker visas,[2] while the 2024–26 targets for permanent immigration of high-skilled workers were raised.



Sources: Haver Analytics, Statistics Canada, and IMF staff calculations.

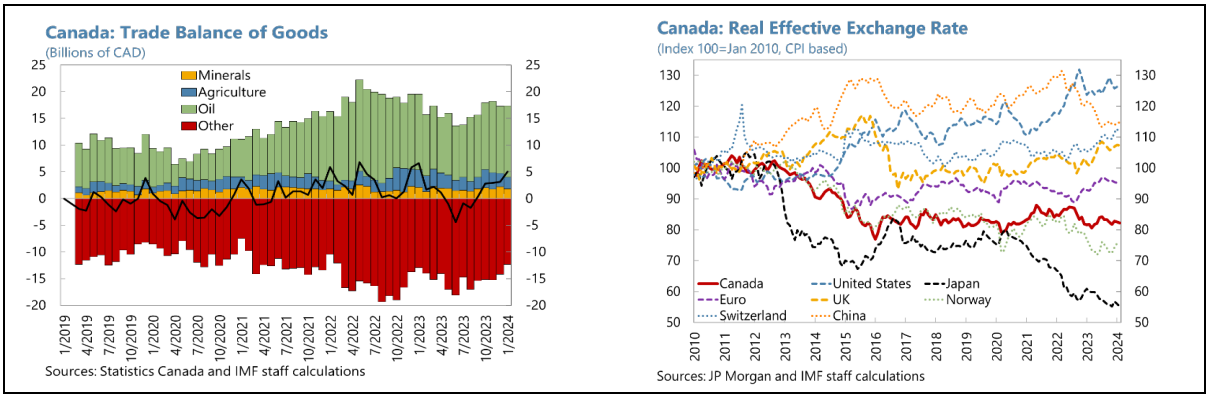
7. Canada is facing a housing affordability crisis driven by supply-side bottlenecks, elevated interest rates, and rapid population expansion. The surge in immigration has fueled a sharp increase in housing demand, and although the authorities have taken a large number of steps

[1] The BoC also estimates that the expansion of immigration during 2022 and 2023:H1 boosted potential growth by some 2–3 percent. (See Bank of Canada Staff Analytical Note 2023-17, Assessing the effects of higher immigration on the Canadian economy and inflation).

[2] In January, the government announced a two-year cap on student visas that would reduce the issuance of such visas by 35 percent from 2023 to 2024. And in March, the federal government for the first time announced restrictions on the arrival of temporary foreign workers, with the aim of reducing the share of temporary residents in Canada's population from 6.2 percent in 2023 to 5 percent by 2027.

to boost supply (see ¶23), these will take time to bear fruit. Housing starts increased in 2023 but were unable to keep up with the sharp rise in household formation, let alone address the pre-existing housing shortage, estimated at close to 4 million units. Rental markets have come under particular pressure—with vacancy rates down to a historic low of around 1 percent and rent increases averaging 8 percent y/y in 2023—as students and new immigrants tend initially to rent rather than buy. With prices and mortgage rates both currently high, housing affordability has reached its worst levels in decades and is especially acute for lower income households (see Figure 5).

8. Meanwhile, Canada's external position deteriorated slightly in 2023, on account of lower global commodity prices. Despite a weakening of the REER (down 3.6 percent relative to 2022)—accompanied by both lower merchandise import volumes (down 0.8 percent) as domestic demand softened, and higher merchandise export volumes (up 4.5 percent) reflecting strength in the US—the current account deficit nonetheless widened by 0.3 percent of GDP in 2023 on account of weakening terms of trade, as energy prices normalized after the initial phases of Russia's war in Ukraine.[3] The current account is projected to remain in slight deficit over the medium term. The net international investment position (NIIP) rose to 58 percent of GDP in 2023, as global equities surged. Canada's external position continues in 2023 to be assessed as moderately weaker than the level implied by medium-term fundamentals and desirable policies (see Annex II).



9. The BoC began to normalize monetary policy in June and was indeed the first G7 central bank to start this process. Following an aggressive round of tightening during 2022–23, the BoC remained on hold for almost a year before starting to lower policy rates again. Ex-ante (and ex-post) real policy rates have been in the 1¼–2 percent range since mid-2023, well above the neutral rate (estimated at around 0.75 percent).[4] In parallel, quantitative tightening has proceeded, with securities rolling off the BoC balance sheet as they mature (see Figure 6).

[3] Canada has, incidentally, imposed sanctions on Russian individuals and entities, as summarized at https://www.international.gc.ca/world-monde/issues_development-enjeux_developpement/response_conflict-reponse_conflits/crisis-crises/ukraine-sanctions.aspx?lang=eng.

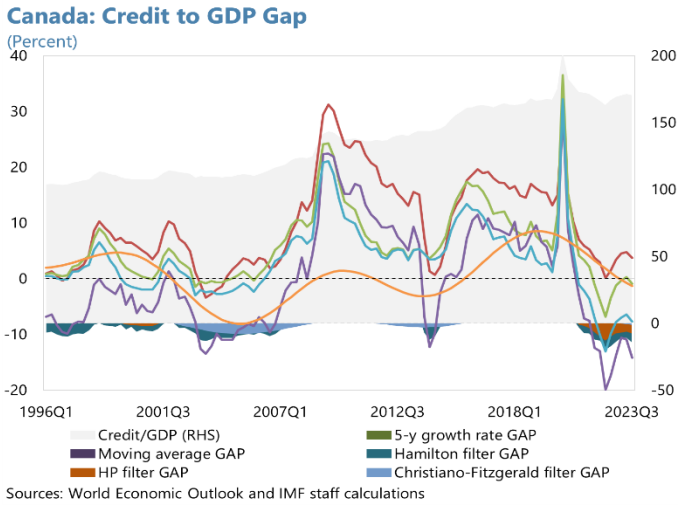
[4] The BoC estimates the neutral rate using four assessment methods: an interest rate parity approach, a reduced-form model, a risk-augmented neoclassical growth model, and an overlapping generations model. These estimates

(continued)

10. The fiscal stance turned slightly expansionary in 2023, although within the context of low general government deficits and debt relative to peers. Reflecting mainly rising spending by provincial and local governments, the general government cyclically adjusted deficit widened from 0.2 to 0.6 percent of potential GDP in calendar 2023. That said, and despite pandemic-related fiscal support, Canada has some fiscal space, with general government gross debt remaining relatively moderate compared to other G7 countries and low overall risks of sovereign stress (see Figure 7 and Annex III).

11. The banking sector has been resilient so far, but pockets of vulnerabilities are building. Most institutions are currently experiencing low levels of NPLs, with liquidity and solvency buffers well above regulatory minima (see Figure 8), consistent with indicators pointing to a neutral-to-low phase of the financial cycle and neutral-to-tight financial conditions:

- Canada's "Big 6" banks, which account for 93 percent of system assets, are highly capitalized and liquid. So too are most small- and medium-sized banks (SMSBs), although some individual institutions are receiving standard supervisory attention to build their buffers further.



Sources: World Economic Outlook and IMF staff calculations

- Households remain highly indebted but also have substantial home equity and are saving well above historical rates. Canadian banks are highly exposed to mortgage lending, but mortgage delinquency rates are extremely low, at 0.17 percent and have remained so even as increasing numbers of loans have repriced. That said, arrears for auto and installment loans have risen above pre-pandemic levels, as have business insolvencies.

- Bank loan loss provisioning, which increased significantly in 2021, remains above pre-pandemic levels; as a result, bank profitability has been dented, but only moderately.

- OSFI has tightened its macroprudential stance by introducing higher risk weights on certain variable rate / fixed payment mortgage loans (many of which have experienced interruptions of principal repayment or negative amortization) and, as a microprudential measure, a bank-by-bank 'speed limit' on the origination of loans with a loan-to-income ratio above 450 percent.

suggest that the neutral rate has fallen from 1 percent in 2019 to 0.25 percent in 2020–21, and has risen since to 0.75 percent in 2024, reflecting upward revisions to potential growth driven by higher population growth.

- Commercial real estate (CRE), which is a troubled asset class globally, is less so in Canada given the strength of its multifamily housing component, and CRE exposures are also less concentrated than in the US and elsewhere.

- In sum, current levels of stress in the household and corporate sectors—and, in turn, in the banking sector—appear, so far, to be contained, with only a few, non-systemic exceptions including certain CRE exposures, especially in smaller banks, and certain cohorts of households who are already financially stretched. Monitoring is being stepped up to ensure these financial stresses do not extend to a wider range of borrowers, especially if the expected decline in interest rates is substantially delayed.

12. Data gaps prevent a conclusive assessment, but the nonbank sector also appears to be healthy, albeit with signs of increasing leverage. Nonbank financial institutions (NBFIs) represent two-thirds of the financial system. The largest Canadian pension funds and other institutional investors deploy sophisticated investment and funding strategies, but they have also moved significantly into less liquid investments (e.g., private equity) and continue to do so notwithstanding the end of the low-rate environment that initially prompted the search for yield. This investment strategy, coupled with an intense recourse to repo financing and derivative hedging, could expose some institutions to liquidity squeezes driven by margin calls and spiking liquidity demand. While NBFIs weathered recent bouts of volatility (like the COVID-related dash-for-cash, the war in Ukraine, and the contagion from the 'mini-budget' turmoil in the UK gilt market) relatively well, the increased reliance on leverage by certain market players requires close monitoring. The data gaps observed in the previous FSAP, however, have been only partially addressed.

OUTLOOK AND RISKS

13. Under the baseline, the economy is projected to continue normalizing over the coming quarters. Growth is expected to pick up and inflation should decline as monetary policy gradually moves to a neutral stance:

- **Real GDP growth** should pick up particularly in the second half of 2024, leaving annual growth slightly higher than in 2023 (1.3 percent versus 1.2 percent). Consumption will grow by 2.8 percent year-on-year, while the contraction in investment will moderate substantially, as the BoC's policy normalization proceeds and fiscal policy remains somewhat supportive this year. Net exports, after making a very large contribution to growth last year, are instead expected to subtract slightly in 2024 and over the medium term. Thereafter, continued strength in consumption and investment will push growth to above potential, with the negative output gap closing by early 2026.[5]

[5] The impact of immigration on productivity or per capita GDP growth is less clear. See Akbari and Haider (2017) for the positive effects on economic growth, Gu, Hou, and Picot (2020) for the effects on firm productivity, and Doyle, Skuterud, and Worswick (2023) for discussion about the potential effects on GDP per capita growth. For more cross-

(continued)

- **Unemployment** is expected to continue rising slowly, peaking at 6.4 percent toward the middle of the year before normalizing at the estimated NAIRU of 6 percent, with wage growth moderating further. Given recent steps to restrict the arrival of temporary foreign workers and students, **overall immigration flows** are expected to soften substantially, notwithstanding the planned increase in permanent, skilled immigration. This may weigh on headline growth while also helping to contain the unemployment rate.

- **Inflation** is projected to return to the 2 percent target by early 2025, as the BoC gradually normalizes **monetary policy** and the labor and housing markets gradually cool, with potential headwinds from supportive fiscal policy. **Housing prices** are expected to rise moderately—with the normalization of the BoC policy stance and slowing household formation working in opposite directions—although with the expected decline in real interest rates and the resulting alleviation of mortgage burdens, shelter inflation and housing affordability are projected to improve gradually.

- The **external current account** is expected to remain in slight deficit over the medium term on account of an expected softening in export growth and rebounding import growth, supported by a slightly expansionary near-term fiscal stance. The expansion of the Trans Mountain pipeline could be an upside risk to exports.

- The **banking sector** is expected to remain resilient, as gradually falling real interest rates—and no sign or expectation of a countervailing rise in credit spreads or risk premia—are expected to ease debt service pressures for all borrowers and ensure that the asset quality of financial institutions remains strong. Capital and liquidity buffers in the financial system are still healthy, and while some households and corporates are under some stress, their situation is not materially different from expectations in the previous Article IV, suggesting that systemic risk is broadly unchanged and remains low. The nonbank sector also is expected to remain healthy overall, although there are signs of increasing leverage among some large institutions.

14. The fiscal stance is expected to ease again in calendar 2024 but normalize over the medium term. The 2024 federal budget introduced about 1½ percent of GDP in new spending measures over a five-year period to address the housing crisis, support vulnerable groups, and boost productivity, partially offset by ½ percent of GDP in capital-gains and other revenue measures. The federal fiscal consolidation path is thus projected to be somewhat more gradual—while still meeting the quantitative objectives laid out in the 2023 Fall Economic Statement (FES, see ¶25). General government debt remains on a declining path over the medium term—falling from 107 percent of GDP at end-2023 to 95¼ percent of GDP by end-2029—but the decline is slightly smaller than previously forecasted as a result of the fiscal easing, the impact of which has been factored into the macro forecast.

country evidence, see Chapter 4 of the IMF April 2020 WEO, which found that a 1 percentage point increase in the inflow of immigrants relative to total employment increases output by almost 1 percent by the fifth year in OECD countries.

15. Risks to the macroeconomic outlook are reasonably well balanced (see Annex IV):

- On the downside, an abrupt global slowdown could dampen Canadian growth and inflation alike. But a downside growth scenario could also be triggered by tighter monetary policy, occasioned, perhaps, by stickier-than-expected inflation (which in turn could reflect shelter costs or wage growth, or perhaps continued USD strengthening against the CAD). Higher-for-longer interest rates could increase the share of households (and likely companies as well) that are financially stretched, especially given the many pandemic-era mortgages that will be repricing in the period ahead. For households this could initially translate into reduced consumption, but if unemployment also were to rise materially, delinquencies on household loans would become increasingly likely, and banks could start to record sizable losses, denting their capitalization, particularly if a significant house price correction were also to materialize.

Canada: Cumulative Fiscal Impact of 2024 Budget New Measures
(FY2023/24 to FY2028/29)

	$C billion	% GDP
Spending initiatives	**53.0**	**1.6**
1. Affordable housing	**8.5**	**0.3**
Building more homes	4.0	0.1
Improving home accessibility	0.1	0.0
Helping the vulnerabiles	4.5	0.1
2. Better care	**10.6**	**0.3**
Canada Disability Benefit	4.9	0.1
National Pharmacare Plan	1.5	0.0
Childcare and school support	*1.5*	*0.0*
Students and youth support	*2.6*	*0.1*
3. Lower living cost	**0.2**	**0.0**
Affordable Groceries	0.1	0.0
Lower Banking Fees, Better Finances	0.1	0.0
4. Strong economic growth	**7.6**	**0.2**
AI investment	2.4	0.1
R&D and innnovation investment	4.5	0.1
Clean Electricity Investment Tax Credit	7.2	0.2
Less: funds previously previsioned	*-8.7*	*-0.3*
Nuclear engergy research	0.8	0.0
Support for workers	0.3	0.0
Others	1.0	0.0
5. Safer and healthier community	**6.4**	**0.2**
Clean environment	1.0	0.0
Inclusive communities	1.5	0.0
Community safety	0.5	0.0
Infrastructure and others	3.4	0.1
6. Indigenous communities	**9.1**	**0.3**
7. Defense and international assistance	**10.7**	**0.3**
Offsetting measures 1/	**-18.1**	**-0.6**
1. Taxation	**-19.2**	**-0.6**
Increasing capital gains inclusion rate	-19.4	-0.6
Tax break for entrepreneurs	1.7	0.1
Tax system modernization	-0.8	0.0
Other tax measures	-0.7	0.0
2. government efficiency	**1.1**	**0.0**
Total net fiscal impact	**34.8**	**1.1**

Source: 2024 Federal Budget and IMF staff calculations.
1/ Negative sign indicates deficit reducing.

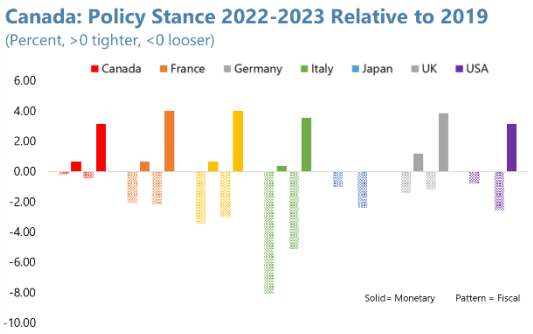
- On the upside, the strength of the US economy might—as in 2023—help to deliver higher-than-expected growth in Canada. Continued labor market resilience could support stronger-than-expected consumption and inflation, while the normalization of monetary policy could end up boosting housing prices and shelter inflation.

16. Authorities' views. There was broad agreement on the outlook. The authorities noted that the economy has avoided the recession that many economists predicted, while also seeing inflation fall back within the Bank of Canada's target range. Looking forward, they expected economic growth to continue, also noting the positive impact of the Trans Mountain pipeline expansion. In keeping the deficit relatively low and declining over the outlook, they did not see recent federal fiscal policy announcements as creating meaningful new inflationary pressure. They agreed that risks were broadly balanced.

POLICY DISCUSSIONS

A. Normalizing and Strengthening Macroeconomic Policies

17. Monetary and fiscal policies have been somewhat at odds in recent years. While monetary policy tightened to combat inflation, fiscal policy was slightly expansionary. As shown in the text chart, the inconsistency between macro policies was smaller than in the rest of the G7[6]—Canada, after all, has in recent years run lower fiscal deficits than its G7 peers—but there is scope to improve coordination between monetary and fiscal policy in Canada as well.



18. Monetary policy normalization should continue as inflation continues to decline. It was appropriate for the BoC to have begun lowering its policy rate in June, and going forward the stance will need to be calibrated carefully in light of incoming data as well as the Federal Reserve's rate decisions—while Canada maintains an independent monetary policy and a flexible exchange rate, an excessively large deviation from the Fed could lead to depreciation of the Canadian dollar and consequent inflation pressure. Consideration will also need to be given to the possibility that monetary policy transmission may have become weaker since the pandemic, as suggested by staff analysis (see Annex VI). And it will be important to closely monitor shelter inflation dynamics as well as wage growth, although staff analysis suggests that passthrough from wages to prices is likely to be small (see Annex V) partially reflecting well-anchored inflation expectations. The monetary policy stance is expected to continue to be restrictive for a while, as nominal rate cuts in the face of declining inflation would keep real rates well above neutral. Quantitative tightening should continue to proceed, with the BoC's carefully monitoring market liquidity as its balance sheet shrinks.

19. As suggested in past consultations, further enhancements to the BoC's already strong monetary policy communication would be useful. The Bank of Canada could provide additional information on the likely evolution of policy rates in order to guide the market more effectively. This could include: (i) comparing policy rates to neutral; (ii) commenting on whether market expectations are aligned with their own intentions; or even (iii) publishing the rate path in its entirety, as is done by a number of advanced-economy central banks. In the last case, it would be important to emphasize that such a path is not a commitment but rather simply the BoC's best forecast of the policy rates that would be consistent with the economic projections that they already provide to the public. And in demonstrating how the rate path changes from one quarter to the next, in response to incoming data, the BoC would have an effective, new modality for explaining its reaction function to the public. Other communications enhancements—such as providing quarterly paths for key variables and including downloadable data appendices in the Monetary Policy Report, as well as

[6] The difference in 2022–23 may relate to differing responses to energy price increases after the beginning of the war in Ukraine.

reducing the five-year lag with which internal staff forecasts are released—could also be valuable. All these possibilities would build on important steps already taken to improve transparency, including publishing Summaries of Governing Council Deliberations and holding press conferences after each scheduled meeting.

20. Fiscal policy should be tighter than projected in the baseline. In the near term, additional fiscal restraint will help support the BoC's efforts to return inflation to target and rebuild fiscal buffers, which were appropriately used during the pandemic, While Canada's public debt remains low in international comparison and the overall risk of sovereign stress also is low, fiscal consolidation can provide the government with the budgetary room needed to deal with future downturns and to finance priority investments—e.g., on healthcare (including pharmacare), education, defense, and the green transition—while ensuring debt sustainability.

21. Fiscal consolidation could be supported by a combination of revenue and spending measures, while making space for housing- and climate-related spending needs:

- On the revenue side, while Canada's revenue-to-GDP ratio is generally in line with OECD benchmarks, it stands below the G7 average, particularly in terms of Goods and Services Tax (GST) collection. The government could consider raising the GST rate (which was cut in 2008), while also increasing the GST credit to ensure that poor households are protected. The increase in the capital gains inclusion rate featured in the 2024 budget improves the tax system's neutrality with respect to different forms of capital income and is likely to have no significant impact on investment or productivity growth.[7]

- Identification of spending measures could be guided by ongoing spending and strategic policy reviews. In particular, the relatively large share of public employment and corresponding wage bill suggest some scope to streamline public services and improve efficiency.

- Consolidation at the federal level could usefully be coordinated with complementary efforts by provincial authorities to boost revenues and cut spending.

22. The introduction of quantitative fiscal objectives was welcome and could be supplemented with the formal adoption of a quantitative framework to help anchor fiscal policy even more effectively. Canada has a 30-year track record of fiscal discipline, but good practice can and should be supported by stronger fiscal institutions. While the authorities have long committed to reducing the federal debt-to-GDP ratio over the medium term—and have delivered on this commitment—this is too broad to provide a binding constraint. The introduction in the 2023 Fall Economic Statement of additional quantitative objectives—including an annual deficit ceiling of 1 percent of GDP, starting in 2026/27—was an important advance, offering more certainty to the market about the specific path of fiscal policy, helping to crystallize tradeoffs, and strengthening the

[7] Many holders of Canadian stocks, such as pension funds and foreign investors, are unaffected by the change in the inclusion rate. Investment is more likely to be affected by the expiration of accelerated depreciation introduced in response to the US Tax Cuts and Jobs Act.

government's hand in resisting spending pressures without offsetting measures. In fact, the new fiscal objectives have already borne fruit in helping justify the need for revenue measures in the budget to finance additional spending needs. A public consultation leading up to adoption of a formal fiscal framework would be a helpful next step, including to improve coordination at the subnational level.[8] Staff's earlier analysis shows that more credible communication about fiscal plans through the adoption of a fiscal target can reduce the output costs associated with consolidation.[9]

23. Improving housing affordability has been a major focus of the authorities, including in the 2024 federal budget, and they are acting on a number of fronts:

- To increase housing supply, federal, provincial, and municipal authorities are, inter alia, reducing permitting times, rezoning for higher density, and mobilizing unused government land, while the federal government is incentivizing many of these efforts by conditioning transfers on them. Federal resources for complementary infrastructure are also increasing sharply, and the shortage of skilled tradespeople in the construction sector is being addressed through targeted immigration policy. The 2024 federal budget lays out a goal of building 3.9 million new homes by 2031, which—if achieved—would largely eliminate the housing supply gap that the Canadian Mortgage and Housing Corporation (CMHC) estimates must be filled to bring affordability back to 2003 levels.

- To address demand, the authorities have restricted visas for both temporary foreign workers and foreign students, and "flipping" taxes and levies on vacant units have been introduced to deter speculators. The federal ban on nonresidents' purchases of housing has been extended for another two years, although it is unlikely to be effective, given the relatively limited role of foreign investors in Canadian real estate.[10] Tax credits to help first-time homebuyers should help affordability, and they have been linked to newly built housing, in order to avoid merely boosting demand and fueling a further rise in home prices.

24. Many of these measures will require more time to generate results, but further efforts will likely be needed to address housing affordability challenges. The budget already envisages scaling up the federal government's Housing Accelerator Fund—which conditions fiscal transfers on provincial and municipal efforts to expand housing—and this could perhaps be expanded further. Greater priority should also be given to targeted policies to effectively address the housing needs of families with children, students, and lower-income households. In this regard, more focus could be placed on increasing the stock of social housing, which accounts for just 4 percent of total

[8] Such a framework could include a long-term quantitative debt anchor calibrated using a risk-based fiscal framework, an escape clause to allow flexibility to deal with shocks, and an operational rule that would guide the authorities' return to the anchor following shocks.

[9] See the 2022 Article IV report.

[10] The ban and previously introduced provincial and municipal taxes on nonresidents' purchases also constitute capital flow management measures under the IMF's Institutional View on the Liberalization and Management of Capital Flows. They would better be eliminated or harmonized into broad-based tax measures that are targeted more generally at speculative activity of residents and nonresidents alike.

housing—far lower than in some peer countries. Finally, consideration should also be given to creating a forum for all the relevant stakeholders—federal, provincial, and municipal governments, as well as the construction industry and civil society—to facilitate decisions on housing policies (see Annex VII).

25. Macro policy settings would need to be adjusted in the event risks materialize. For instance, if inflation proves to be stickier than expected, monetary easing might need to be delayed and fiscal policy also may need tightening. Meanwhile, positive external shocks—from stronger US growth or more favorable terms of trade—would also warrant tighter policy settings. Lower global demand and increased geo-fragmentation could dampen growth and require a more supportive fiscal stance, although monetary policy would need to act cautiously in the event supply-side shocks (from broken supply chains) lead to higher inflationary pressures. In case such a scenario were compounded by signs of a significant contraction in credit, some loosening of macroprudential policies—e.g., a reduction in the domestic stability buffer applied to large banks—could also be considered to support credit growth and prevent adverse feedback loops that could further depress economic activity.

26. Authorities' views. There were no substantial differences of view on the monetary policy stance, although on the issue of communications, the authorities emphasized that important steps had been taken, including the organization of a press conference at every scheduled interest rate announcement and the presentation of scenario analysis in Monetary Policy Reports. Scenario analysis could effectively explain the BoC's reaction function. They also noted that new models were being developed to facilitate such analysis. The authorities were, however, more skeptical about the usefulness of saying more about their policy rate intentions. In terms of fiscal policy, the authorities emphasized their history of extremely responsible policies, achieving the fastest pace of fiscal consolidation since the pandemic and the lowest deficits among the G7, and said that increases in the GST were not under consideration. They were pleased with their new quantitative fiscal objectives, which complement the continued commitment to reducing federal debt as a share of the economy over the medium term. They felt that a more complex set-up, such as targeting a cyclically-adjusted deficit, would be difficult to communicate (since it would be reliant on uncertain estimates of the output gap) and could be too focused on the short term (as the government is making investments to: prepare for climate risks and the transition to a low-carbon economy; address productivity challenges more broadly; and strengthen national defense and healthcare, all of which aim to boost Canada's economic potential). Finally, on housing, they emphasized that many measures had been implemented recently and would bear fruit over time.

B. Safeguarding Financial Stability

27. Efforts should continue to closely and frequently monitor the liquidity situation of the largest institutional investors. The authorities need to be able to intercept any signal of deteriorating funding capacity in large institutional investors and assess the potential for further strains on their liquidity in conditions of high and persistent volatility (e.g., as a result of large margin calls), as those could propagate, under extreme scenarios, to other markets (e.g., via forced

sales) and generate instability. Importantly, better coordination across regulatory and supervisory authorities at federal and provincial levels should improve the timeliness of data collection for systemic risk analysis and ability to assess threats to financial stability in real time. Staff analysis suggests that bank-NBFI linkages have grown over time (see Annex VIII), underscoring the importance of addressing NBFI data gaps in order to be better prepared for spillovers of any potential problems into the banking sector.

28. While the authorities have, through the years, addressed many of the 2019 FSAP recommendations, progress on others has been much more limited (see Annex XV). In particular, Canada's federal structure has complicated attempts to address data gaps, particularly those related to cross-sectoral exposures, nonbank financial intermediation, and funding market activities. There are several federal-provincial coordination mechanisms (see Table 1) and a number of initiatives have been put in place to address regulatory and supervisory fragmentation and bridge data gaps. For example, OSFI has: (i) established a dedicated team to engage with provinces on regulatory, policy, and supervisory matters; and (ii) strengthened its engagement with several provincial regulators to improve information sharing. Federal and provincial members of the Heads of Agency committee have also finalized an MoU on information sharing. While these are all steps in the right direction, and consistent with FSAP recommendations, the voluntary nature of most of these initiatives is allowing for only slow and limited progress.[11] Given the size of Canada's financial sector and the important role of non-bank financial intermediation (for which regulatory fragmentation and data gaps are more prominent), higher priority should be placed on figuring out how to compel information provision. In this regard, the 2025 FSAP represents an opportunity for a comprehensive evaluation of financial stability risks, and a deep review of both the implementation of global standards and critical operational issues including interagency coordination and data gaps.

29. The authorities should continue to enhance their understanding of money laundering (ML) risks—particularly cross-border risks—to safeguard the integrity of the financial sector. Leveraging the extensive cross-border payments data collected, the authorities should ensure increased focus on cross-border money laundering risks in conducting their AML/CFT supervisory risk assessments and onsite engagement with the financial sector. The authorities should also continue cooperation and information sharing between AML/CFT and prudential supervisors and financial stability experts to identify ML vulnerabilities that may affect financial sector stability.

[11] For example, little progress has been observed so far on strengthening oversight of large public pension funds and improving their financial disclosures.

Table 1. Canada: Coordination Mechanisms among Financial Authorities						
Committee	**Heads of Regulatory Agencies (HoA) Committee**	**Systemic Risk Surveillance Committee (SRSC)**	**Financial Institutions Supervisory Committee (FISC)**	**Senior Advisory Committee (SAC)**	**FMI Resolution Committee (FMI-RC)**	**Canadian Securities Administrators (CSA)**
Role	To share information and perspectives on: - Emerging regulatory issues - Financial system trends - Broad market developments that cut across functional responsibilities of HoA members	It facilitates information sharing and collaboration among Canadian financial authorities for the purpose of monitoring and assessing systemic risk by identifying: - existing financial system vulnerabilities, and - emerging vulnerabilities that may become important over time	Facilitating consultation and the exchange of information on matters relating to the supervision of federal financial institutions	Discussion forum for financial sector policy issues, including financial stability and systemic vulnerabilities	Facilitating federal-level consultation and information sharing on matters relating to the resolution of Canadian financial market infrastructures (FMIs)	Improve, coordinate, and harmonize regulation of the Canadian capital markets
Finance Canada	X	X	X	CHAIR	X	
Bank of Canada	CHAIR	CHAIR	X	X (Analytical lead)	CHAIR	
OSFI	X	X	CHAIR	X	X	
CDIC		X	X	X	X	
FCAC			X	X		
CMHC		X				
AMF	X	X				X
ASC	X	X				CHAIR *
BCFSA		X				X
BCSC	X	X				X
OSC	X	X				X
FSRA		X				
other agencies (#)						X

* : as of June 2024 (the chair is elected every three years)
AMF: Autorité des marchés financiers
ASC: Alberta Securities Commission
BCFSA: British Columbia Financial Services Authority
BCSC: British Columbia Securities Commission
CDIC: Canada Deposit Insurance Corporation
CMHC: Canada Mortgage and Housing Corporation
FCAC: Financial Consumer Agency of Canada
FSRA: Financial Services Regulatory Authority of Ontario
OSC: Ontario Securities Commission
#: All other provincial and territorial securities regulators

30. The establishment of the federal beneficial ownership (BO) registry in 2023 for all companies incorporated at the federal level in Canada was a welcome step in the fight against money laundering. Its launch should be supported by adequate human and technical resources to ensure data quality and the ability to detect (and pursue) false declarations at the national level. Given that most Canadian companies are incorporated at the provincial level, establishment of provincial BO registries (as in Quebec) or other provincial BO transparency measures would also be critical to avoid arbitrage concerns. Further, the authorities should consider implementing sectoral BO transparency initiatives like the real-property BO registry in British Columbia in other high-risk real estate markets to limit the exposure of real estate to financial crimes.

31. Canada continues to implement measures to address transnational aspects of corruption, but some areas require further improvement.[12] The authorities should continue their efforts to fight the country's relatively high exposure to foreign bribery.[13] In Canada's Phase 4 evaluation in 2023, the OECD Working Group on Bribery (WGB) welcomed enhancements of the legal framework to fight foreign bribery but expressed concerns over the low enforcement levels since the Corruption of Foreign Public Officials Act entered into force in 1999. The authorities should continue their efforts to, *inter alia*, proactively enforce foreign bribery legislation, maintain comprehensive statistics, and align the regime for liability of legal persons and whistleblower protection with OECD standards (see Annex IX). Enhancing AML/CFT risk-based supervision and increasing access to BO information as noted above can strengthen efforts to tackle the laundering of proceeds of foreign corruption.

32. Authorities' views. There was broad agreement about the resilience of the financial sector. While liquidity monitoring of NBFIs is done on a voluntary and cooperative basis, the authorities felt that this approach allowed them to obtain the information needed to provide effective oversight. Similarly, they emphasized that federal-provincial cooperation continued to improve, with a number of important vehicles, including the Systemic Risk Surveillance Committee, for supervisory agencies to exchange information and coordinate. The authorities agreed that focusing further on cross-border financial flows and beneficial-ownership transparency would further strengthen the effectiveness of the AML/CFT framework ahead of the 2026 FATF mutual evaluation.

C. Confronting Structural Challenges

33. Boosting Canada's labor and total factor productivity remains the highest priority for ensuring rising living standards. Productivity in Canada is among the lowest in the G7, as discussed in the 2023 Article IV consultation, with a series of factors behind this trend. One

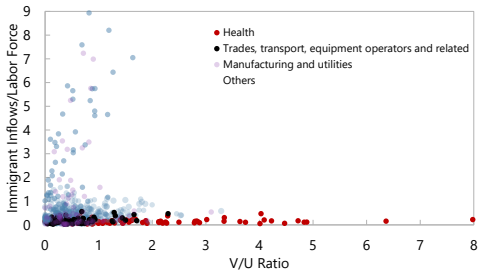
[12] Canada volunteered to have its legal and institutional frameworks assessed in the context of bilateral surveillance for purposes of determining whether it: (i) criminalizes and prosecutes the bribery of foreign public officials; and (ii) has an effective AML/CFT system that is designed to prevent foreign officials from concealing the proceeds of corruption.

[13] Out of the 500 largest multinational enterprises in the world, 21 are headquartered in Canada, with some operating in high-risk sectors (e.g., manufacturing, energy, and mining) and jurisdictions. Canada is also a leading source of outward FDI (See OECD- UNSD Multinational Enterprise Information Platform, and International Financial Statistics - International Investment Position, Assets, Direct investment (BPM6)).

explanation may be Canada's low level of investment overall, compared to peers, as well as the particularly low level of investment in sectors like ICT, R&D, and education. As such, introducing incentives to increase investment in these areas could help in boosting productivity.[14] Harnessing artificial intelligence (AI)—within appropriate guardrails to manage its risks—would also support these efforts, as Canada seems to be well positioned to benefit given the composition of its labor force (see Annex X). Canada may also see opportunities for productivity enhancement in the green transition (see ¶¶40–41). Meanwhile, and as noted in past Article IV consultations, greater priority should be given to addressing other sources of low investment, including possible barriers to the growth of firms, the presence of financing constraints, and limited competition. Finally, and in the context of large productivity differences across provinces (even after adjusting for sectoral composition), effort should be given to tackling high interprovincial trade barriers that may be dampening aggregate productivity growth.

34. Immigration will remain another critical ingredient, given Canada's aging population. The economy will continue to need workers—including high-skilled individuals—to fill gaps in the labor market, and, over time, to boost productivity. In the past, immigrants' skills have not always been well-matched with local market demands, as shortages of healthcare workers and skilled tradespeople have been persistent. And even if skills are targeted well, housing supply, infrastructure development, and social-service provision must be calibrated to support immigration policy. Meanwhile, efforts are required to reduce the hurdles immigrants face in having their qualifications recognized in Canada, so as to improve skill matches.

Canada: Immigrants vs. Labor Tightness by Occupation
(Annual average, Provincal level, 2015-2022)



Sources: IRCC, Statcan and IMF staff calculations
Note: Obsevations by 1-digit National Occupation Code (NOC 2011). Occupations for immigrants are intended occupations reported at entry.

35. Further improving female labor force participation (LFP) can deliver important benefits. By mobilizing female workers, both GDP and productivity can rise, and without the additional pressures on the housing market that immigration can imply. While Canadian female LFP is strong in international comparison, it is still lower, on average, than male LFP (and female economic outcomes lag in other dimensions as well).[15] That gap generally increases with worker age, although, interestingly, it is particularly large for workers in their 30s (and especially so among less educated workers), suggesting a possible link to difficulties in accessing childcare.

[14] The authorities have already taken a number of steps to boost investment and productivity, including by modernizing the Competition Act in December 2023, introducing investment tax credits for targeted green sectors in the 2023 federal budget, and introducing the accelerated capital cost allowance in the 2024 budget to boost investment in cutting-edge technologies.

[15] For instance, gaps in STEM education and STEM employment remain (see https://www.wlu.ca/about/governance/senior-leadership/president/news/2024/winter/international-day-for-women-and-girls-in-science.html.) And according to OECD data, women spend 76 minutes more than men on unpaid work each day. Also, in 2023 56.9 percent of minimum wage earners in Canada were women, and women earned on average 78 percent of what men earned.

36. The government's national affordable childcare program has the potential to yield great dividends over time. It is too early in the rollout of the program to detect substantial benefits—while female LFP has increased during the two years of the initial rollout, an increase has been observed in other countries, such as the US, as well. Nonetheless, the experience of Quebec, which introduced a similar childcare program in early 1990s, suggests that the longer-term outcomes will be positive for female LFP, and this also emerges in staff's model-based analysis, which suggests that—in the absence of supply constraints—reducing the costs of childcare could boost female LFP by some 5.5 percentage points over the longer term (see Annex XI).

37. Reducing childcare costs must, however, be matched by complementary efforts to boost supply. Important constraints persist with respect to the supply of childcare—too few early childhood educators, and too few physical facilities for childcare. Efforts to train more personnel—and to retain those already trained in the profession—will be critical, as will developing additional infrastructure. The authorities' stated intention of adding 250,000 childcare spaces to the more than 750,000 affordable spaces already available is thus welcome. Without expanded supply, subsidizing demand may merely deliver a windfall to those families currently using childcare, rather than broadening access and boosting labor force participation. Moreover, since not all women have children, additional policies beyond affordable childcare will be needed to boost female LFP and close wage gaps.

38. Canada's ambitious climate mitigation policy framework should be preserved and optimized. Currently the fourth largest crude oil producer and one of the world's largest emitters of greenhouse gases, Canada has committed to reducing 2030 emissions by 40–45 percent relative to 2005 levels and achieving net zero emissions by 2050. Carbon pricing is the backbone of this effort: the pre-determined increase in carbon prices until 2030 provides a solid market signal on which market agents can base their decisions, with carbon tax revenues rebated to households. Analysis in the 2023 Article IV Consultation suggested that carbon pricing alone would deliver about half of the committed emissions reductions in a cost-effective way. Indeed, calls to replace the retail fuel charge (which is set to rise to Can$170/ton by 2030) with technology subsidies would imply substantially higher costs of achieving climate goals, as confirmed in staff analysis presented in Annex XII. Eliminating carbon pricing faced by Canadian exporters could also expose these firms to carbon border adjustment policies of Canada's trading partners—Canadian firms would receive no relief, while fiscal revenues would flow overseas.

39. Achieving stated emission reduction goals will require implementing additional measures, while reinforcing existing ones. Current and proposed policies, if fully implemented, should allow Canada to achieve between 80 and 85 percent of its climate mitigation target by 2030;[16] closing the so-called "implementation gap" will require a supplementary effort and will be particularly important given that, even if fully implemented, global mitigation targets are collectively insufficient to limit warming to 1.5°C. The decarbonization process should be supported by

[16] Sawyer et al (2023), Independent Assessment of the 2023 Emissions Reduction Plan Progress Report, Canada Climate Institute.

enhanced transparency (e.g., on the transfers of carbon credits between large emitters and the excess emissions charge payments to the government) and better communication (e.g., to ensure households clearly associate the rebates they receive to the carbon-related charge they pay on fuels).

40. A holistic review of the overall policy package and enhanced policy coordination could help optimize the path to a low-carbon economy. As of mid-2023, more than 240 provincial climate change mitigation policies had been implemented and around 80 more were announced or in the process of being implemented.[17] While many of these measures can deliver additional emission reductions, some may perversely weaken the market signal provided by carbon pricing systems or reduce cost-effectiveness. The review should assess each measure's contribution to decarbonization, its cost-effectiveness and distributional effects, as well as its impact on international trade. Improved inter-agency coordination within and across the different levels of government could be pursued, for example, through the establishment of an independent public entity with the mandate to advise government and parliament on policy design and, more generally, on the overall climate mitigation and adaption strategy (e.g., like the UK Climate Change Committee).

41. Ensuring the structural transformation of Canada's economy toward a globally decarbonized future is of critical importance. Canada is well-placed to take advantage of some of the opportunities presented by the transition to a low-carbon economy given its mineral reserves and well-developed mining sector. The authorities have laid out many important pieces of a comprehensive strategy for the green transition, including an overall blueprint in the 2023 budget, an interim sustainable jobs plan, a critical mineral strategy, various technology-neutral incentives, and a strategic call on electric-vehicle battery manufacturing. In its green industrial policy aimed at promoting this sector, Canada implemented subsidies after the US Inflation Reduction Act (IRA). And while it has not introduced "buy Canadian" provisions, it has offered substantial production subsidies to individual manufacturers. While such support could generate positive spillovers to the economy, it will be essential both to avoid a "race to the bottom" that could contribute to global fragmentation and to provide a level playing field for all companies, so as to ensure open and competitive markets. More broadly, any subsidies should be well-targeted to address an identified market failure, time-bound, cost-effective, transparent, and designed in a WTO-consistent manner (see IMF Policy Paper No. 2024/008).

42. Authorities' views. The authorities agreed that boosting productivity growth was of critical importance but also that immigration would continue to be needed as part of Canada's growth strategy. They were optimistic about the economic benefits of fee reductions for childcare and

[17] 440 Megatonnes, Policy tracker (https://440megatonnes.ca/policy-tracker/). Information "is based on a review of key policy documents, including Navius' internal policy lists, the Federal Government's 2030 Emissions Reduction Plan, the 2020 Pan-Canadian Framework on Clean Growth and Climate Change, and provincial and territorial climate strategies. The list was shared with provincial and federal government representatives for review. The Carbon Reduction Policy Tracker was last updated on July 7, 2023."

noted that Canada is supporting major provincial and territorial efforts to expand supply. In terms of climate mitigation, the government underscored its commitment to carbon pricing, emphasizing both its economic efficiency and the fact that its revenues were rebated to households. Finally, the authorities underscored their commitment to an open and fair multilateral trading system and emphasized that while they had negotiated some bespoke incentive packages for electric vehicle battery manufacturers in response to the IRA, going forward they were relying on investment tax credits accessible by all.

STAFF APPRAISAL

43. The Canadian economy seems to have achieved a soft landing. Inflation is declining steadily, and a recession has been avoided, with growth supported by surging immigration even as per capita income has shrunk. Housing affordability, however, has reached its worst levels in a generation, with supply unable to keep up with immigration-fueled demand. Economic activity is expected to pick up in the second half of this year as monetary policy continues to normalize, and risks around the outlook have become more balanced. The external position remains moderately weaker than the level implied by medium-term fundamentals and desirable policies.

44. The BoC has appropriately started normalizing monetary policy, although the stance will need to remain restrictive to bring inflation to target. The pace of further rate reductions should be data dependent to ensure that inflation returns to the 2-percent target by early 2025. This should also be supported by continued enhancements in monetary policy communication to provide further information about the likely evolution of policy rates.

45. While fiscal policy has remained prudent, some tightening could help improve the consistency of the policy mix and rebuild fiscal space. Canada's deficits and debt levels are lower than in most peers, but further consolidation will help to support inflation goals as well as to rebuild fiscal buffers that were appropriately used during the pandemic, so as to prepare for future downturns and address structural spending needs. The introduction of quantitative fiscal objectives has been a major step forward for which the authorities deserve substantial credit, and it could be followed now by a public consultation leading up to the adoption of a formal fiscal framework, including to improve coordination with provincial governments.

46. Policies to address housing affordability should deliver results over time, but further efforts are likely to be required. Federal, provincial, and municipal governments have introduced an impressive number of measures focused on promoting housing supply, but many of these are quite recent and will need time to bear fruit. Given the size of the housing gap, all levels of government will likely need to make further efforts to boost supply, including of social housing. Measures that inadvertently boost demand should be avoided, and the ban on nonresident housing purchases—a capital flow management measure—would better be replaced by a nondiscriminatory tax on speculation. Consideration could also be given to the creation of a national forum to address housing issues, involving all stakeholders.

47. The financial sector remains resilient, yet oversight should continue to be strengthened and data gaps bridged. Banks are well capitalized and liquid, and the impact of mortgage repricing on credit quality is expected to be contained. Nonbank financial institutions also appear to be healthy, but leverage and the share of illiquid investments in some large players have increased and require heightened monitoring. Data gaps persist and should be addressed with urgency, including by strengthening federal-provincial coordination.

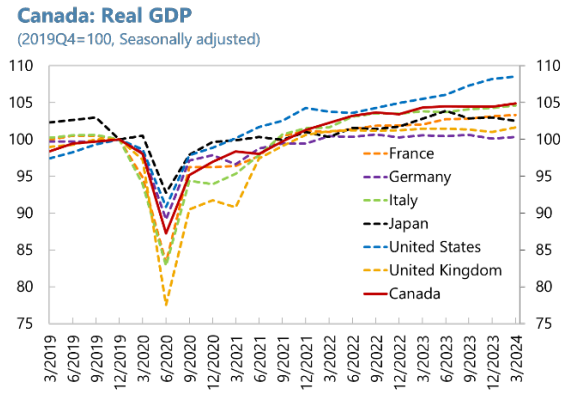
48. Boosting Canada's lagging productivity growth and raising living standards remains the key priority. Given the aging population, the integration of immigrants will remain a critical ingredient in the country's long-run growth prospects. Further harnessing the potential of Canadian women is another key policy for sustaining growth: the government's affordable childcare program has the potential to boost labor-force participation rates of young mothers quite substantially but only if ongoing plans to expand the number of childcare spaces are successful. Meanwhile, efforts should continue to encourage investment and more R&D, harness the power of AI (within appropriate guardrails), and reduce interprovincial trade barriers.

49. Continued policies to reduce greenhouse gas emissions and to support Canada's green transition are of critical importance. Carbon pricing is the linchpin of Canada's climate mitigation strategy, and calls to replace it with technology subsidies will imply that Canada's emission-abatement goals will be much more costly to achieve. While carbon pricing needs to be complemented by other mitigation policies, their design and implementation could be better coordinated and streamlined, and consideration could be given to creating a single body to conduct research and advise the government on climate change issues. Finally, ensuring a green transition is of critical importance, but the government should avoid green industrial policies that lead to a "race to the bottom" and global fragmentation, or that create an unlevel playing field.

50. Staff recommend that the next Article IV consultation be held on the standard 12-month cycle.

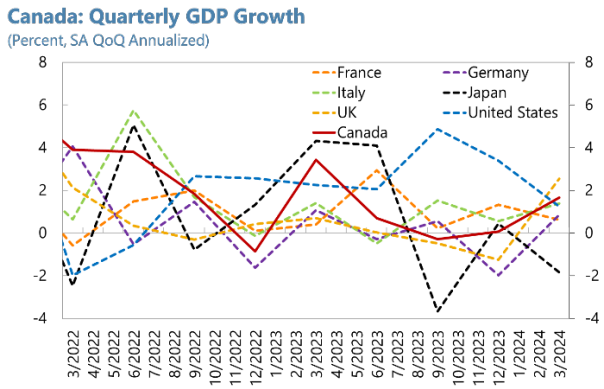
Figure 1. Canada: Growth

Real GDP growth has been relatively strong in international comparison…



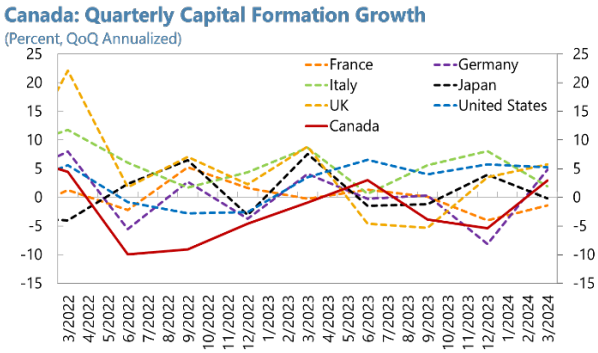
Sources: World Economic Outlook and IMF staff calculations

…and this pattern persists in the most recent data.



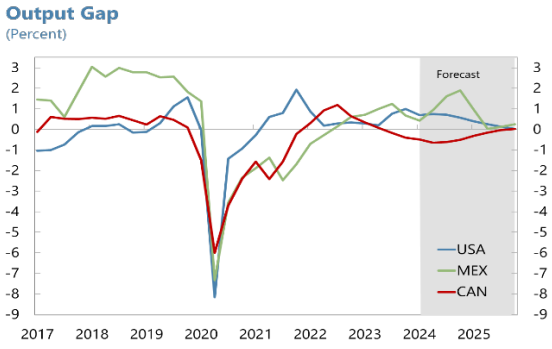
Sources: World Economic Outlook and IMF staff calculations

Investment has been quite weak until recently.



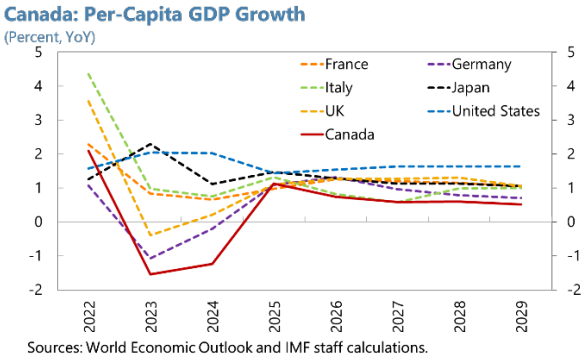
Sources: World Economic Outlook and IMF staff calculations

The output gap is slightly negative and is expected to close by end-2025.



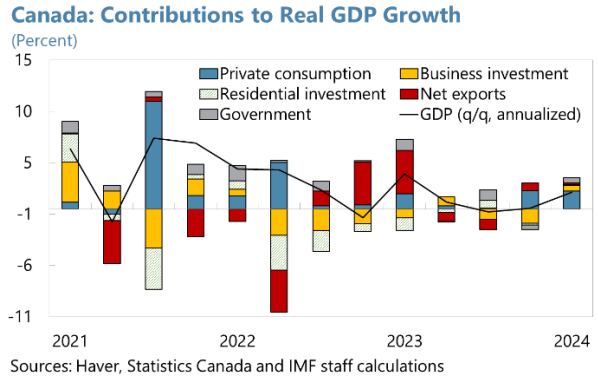
Sources: World Economic Outlook and IMF staff calculations.

Per capita growth has been negative, and more sharply so than in peers.



Sources: World Economic Outlook and IMF staff calculations.

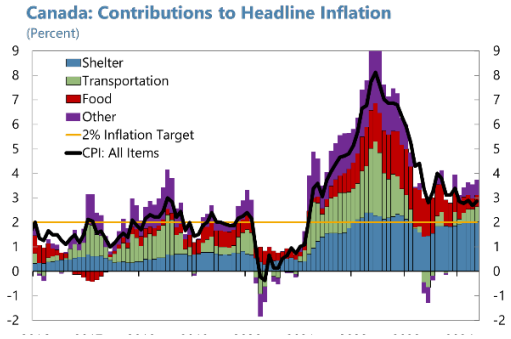
Private consumption has rebounded.



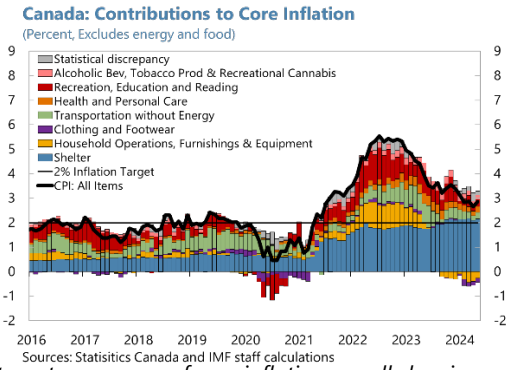
Sources: Haver, Statistics Canada and IMF staff calculations

Figure 2. Canada: Inflation

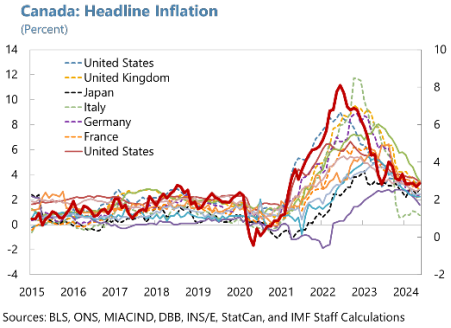
Inflation slowed sharply in 2023...



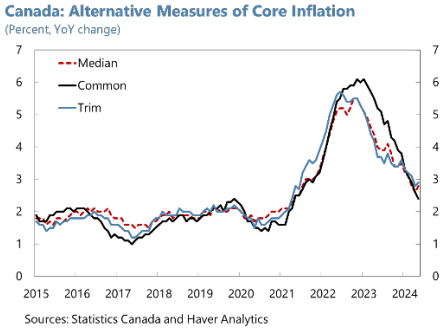
...with most categories, except shelter, showing improvement.



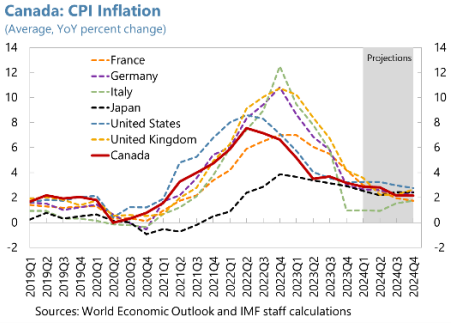
The inflation slowdown began earlier than in other countries but lost some steam in the second half of 2023.



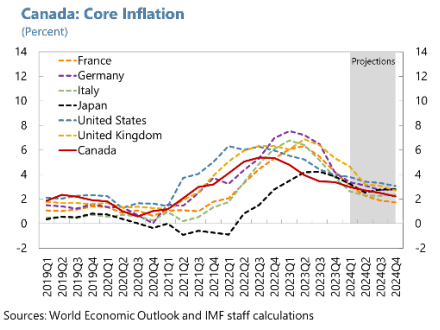
Alternate measures of core inflation are all showing improvement.



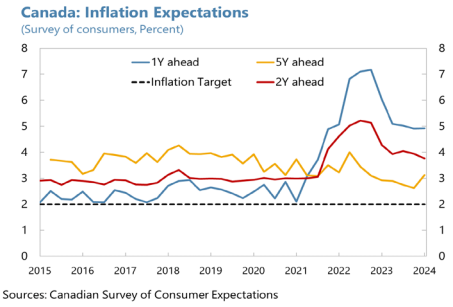
Looking ahead, inflation is expected to return to target by early 2025.



Core inflation might take longer to fall given pressures on shelter costs, but it still looks favorable in international comparison.



Consumers' near-term inflation expectations have improved only sluggishly...



...while businesses' expectations have normalized more appreciably.

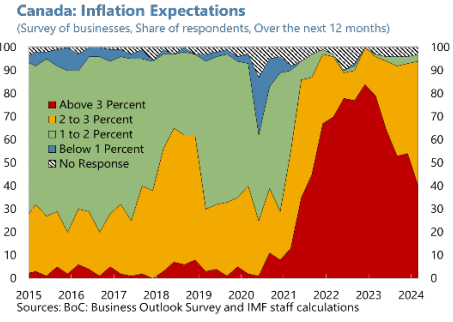
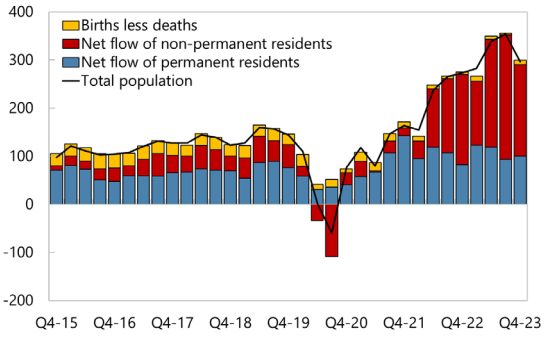


Figure 3. Canada: Immigration

Immigration has spiked...

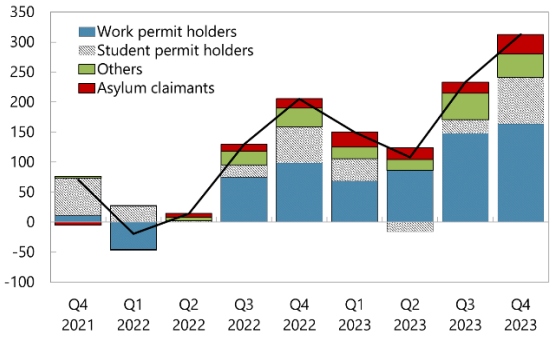
Canada: Population Growth and Composition
(Thousand, SA)



Sources: Haver Analytics, Statistics Canada, and IMF staff calculations.

...especially of temporary workers and students.

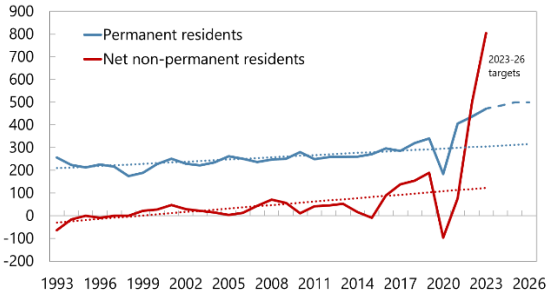
Canada: Net Increase in Non-permanent Residents
(Thousand)



Sources: Statistics Canada and IMF staff calculations.

Canada's program to attract skilled permanent residents has grown as well, but more modestly.

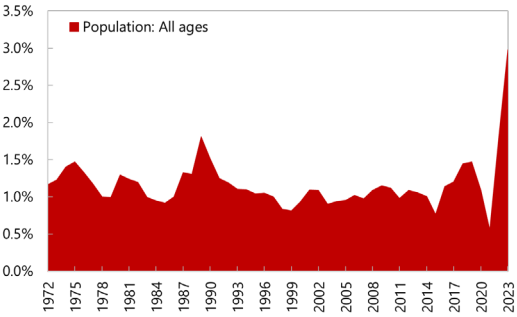
Canada: International Immigration Flows
(Thousand)



Sources: Haver Analytics, Statistics Canada, and IMF staff calculations.
Note: Non-permanent residents includes temporary foreign workers and study permit holders. Dash lines are pre-pandemic trends.

Population growth is at its highest since the late 1950s.

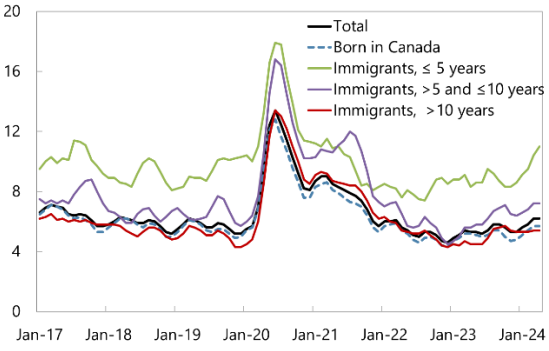
Canada: Population Growth
(Percent, YoY)



Sources: Haver Analytics, Statistics Canada, and IMF staff calculations.

Newer immigrants usually take some time to get jobs...

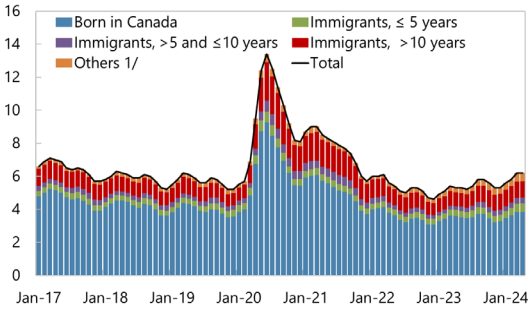
Canada: Unemployment Rate
(Percent)



Sources: Statistics Canada/Haver Analytics.

...and this has contributed to the aggregate unemployment rate.

Canada: Contribution to Unemployment Rate
(Percent)

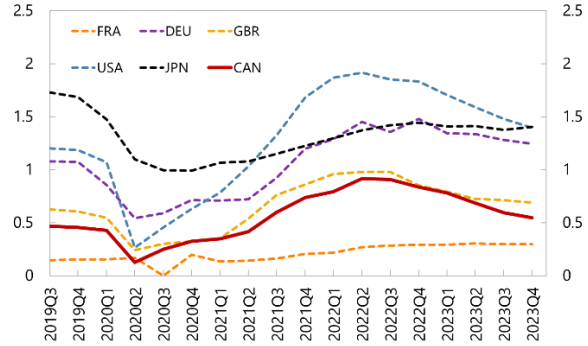


Sources: Statistics Canada/Haver Analytics and IMF staff calculations.
1/ Include Canadian citizens born outside Canada and non-permanent residents.

Figure 4. Canada: Labor Market

The labor market is softening, with vacancies declining…

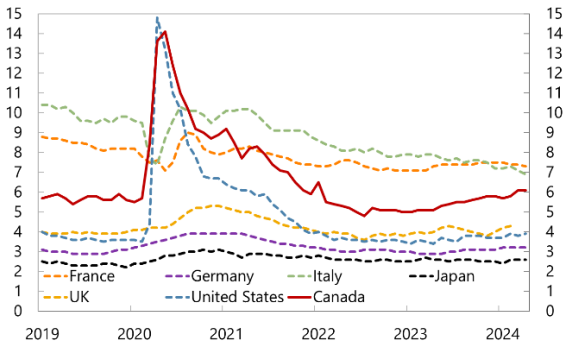
Canada: Job Vacancies per Unemployed Person
(Ratio, Seasonally adjusted)



Sources: Haver Analytics and IMF staff calculations

…and unemployment rising modestly, partly reflecting new immigrants.

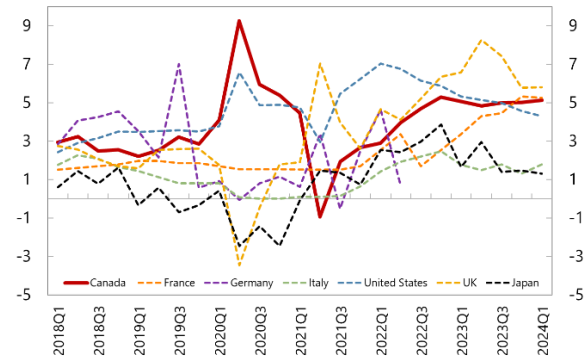
Canada: Unemployment Rate
(Percent, Seasonally adjusted, Monthly)



Sources: StatCan, INS/E, StatBun, INS, MoHLW, ONS and BLS

Wage growth nonetheless remains quite rapid…

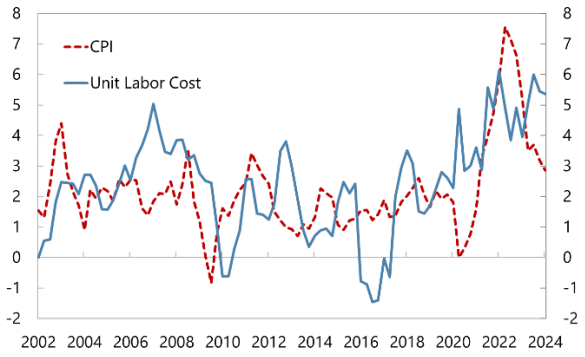
Canada: Average Hourly Wage
(Percent, Growth YoY)



Sources: StatCan, INSEE, DBB, INS, BLS and IMF staff calculations

…and far in excess of productivity growth, implying rising ULCs.

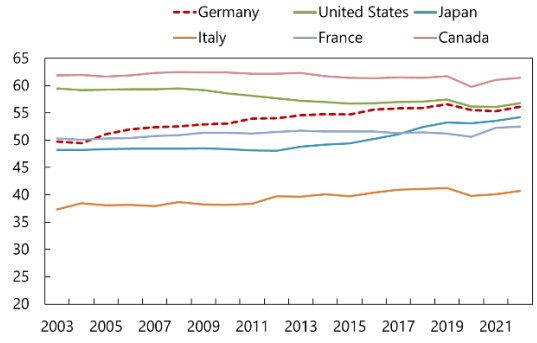
Canada: Unit Labor Cost
(Percent, Growth rate, YoY, Seasonally adjusted)



Sources: Statistics Canada and IMF staff calculations

Female labor force participation is strong in international comparison…

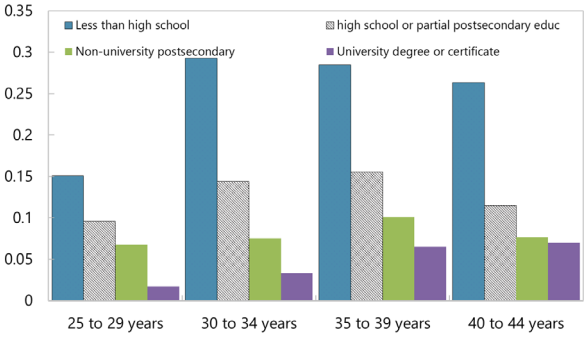
Canada: Labor Force Participation Rate, Female
(% of female population ages 15+) (national estimate))



Sources: World Development Indicators

…with a notable gap for workers in their 30s, hinting at a possible lack of access to childcare.

Canada: Gaps in Labor Force Participation
(Percentage points difference between males and females)

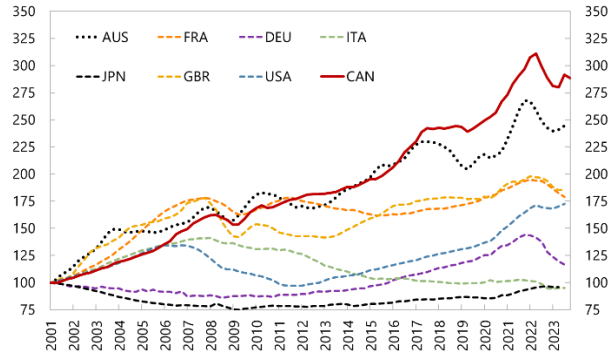


Sources: Statistics Canada Labor Force Survey Public Use Microdata

Figure 5. Canada: Housing

House prices skyrocketed during the pandemic and corrected only partially…

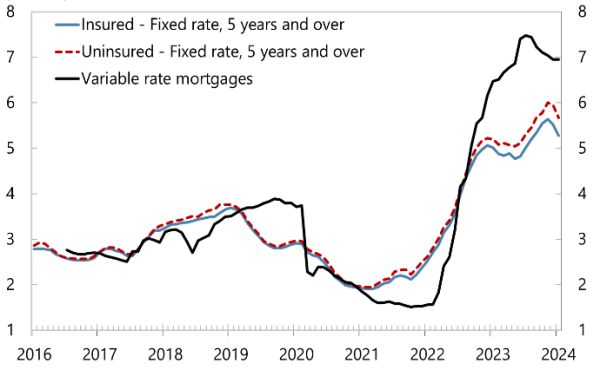
Canada: Real House Prices
(Index, 2001=100, Seasonally adjusted)



Sources: OECD and IMF Staff Calculations

…while mortgage rates, despite some slight easing, remain very high.

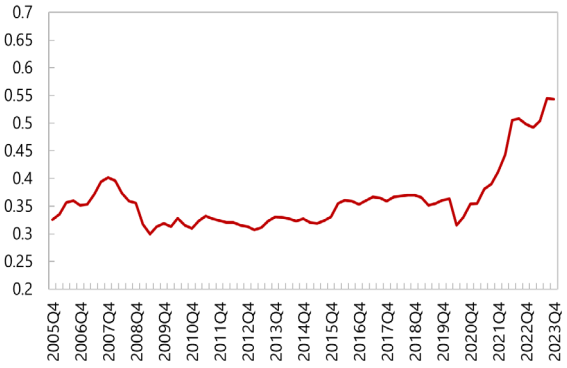
Canada: Interest Rates on New Mortgage Loans
(Percent)



Sources: Bank of Canada

As a result, housing affordability has reached its worst level since the early 1990s…

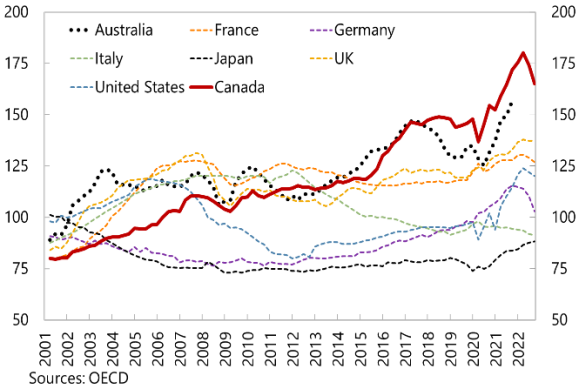
Canada: Housing Affordability Index



Sources: Bank of Canada and IMF staff calculations.

…with some easing recently.

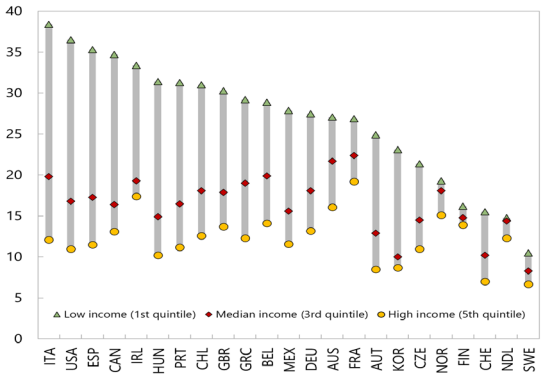
Canada: Standardized House Price-Income Ratio
(Percent of disposable income, 1980=100)



Sources: OECD

The affordability challenge is particularly acute for lower-income households.

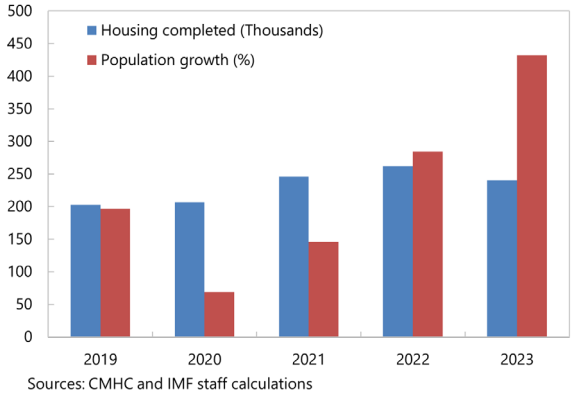
Canada: Mortgage Costs as Percent of Household Disposable Income
(Households with a mortgage, 2019 or latest available data)



Sources: OECD Affordable Housing Database

One major contributor to recent pressures was the extent to which household formation exceeded housing completions.

Canada: Housing Completed and Population Growth

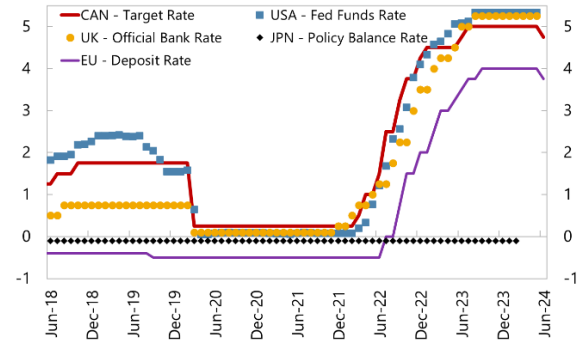


Sources: CMHC and IMF staff calculations

Figure 6. Canada: Monetary Policy

The BoC had tightened monetary policy decisively before its most recent easing…

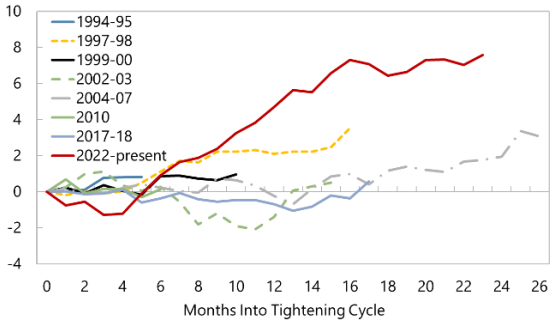
Canada: Nominal Policy Rates
(Percent, EoP)



Sources: Haver Analytics

…making this the most aggressive tightening cycle in decades.

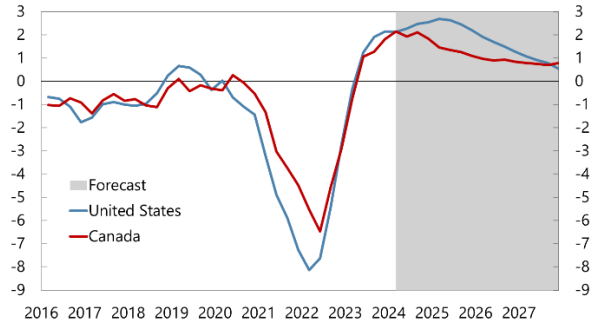
Canada: Ex-post Real Policy Rate During Tightening Cycles
(Percentage points, cumulative changes)



Sources: Haver Analytics and IMF staff calculations.
Note: Ex-post real policy rate equals nominal policy rate minus realized inflation.

While the ex post real rate is lower than in the US, given lower inflation…

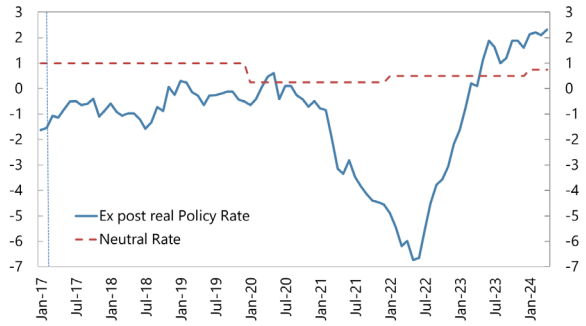
Canada: Real Interest Rates
(Percent, Year-over-year, Quarterly)



Note: Real interest rate is central bank policy rate minus CPI inflation rate
Sources: Statcan, BLS, BoC, FRB, and IMF staff calculations

…it is nonetheless well above neutral.

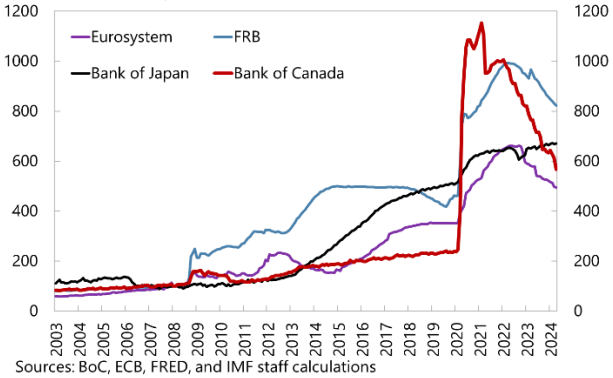
Canada: Ex-post Real Rate and Neutral Rate
(Percent)



Sources: Haver Analytics and IMF staff calculations.
Note: Ex-post real policy rate equals nominal policy rate minus realized inflation.

Meanwhile, quantitative tightening is proceeding in a passive manner.

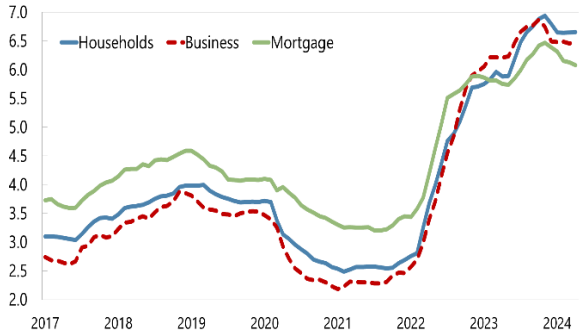
Canada: Central Bank Balance Sheets
(Index, Jan 2008= 100)



Sources: BoC, ECB, FRED, and IMF staff calculations

Borrowing costs are easing slightly.

Canada: Interest Rates
(Percent)

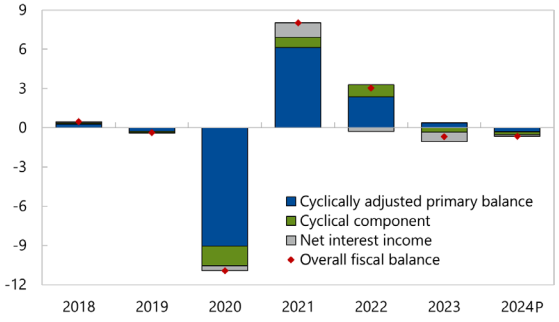


Sources: Bank of Canada, CMHC and IMF staff calculations.

Figure 7. Canada: Fiscal Policy

Fiscal policy has become slightly expansionary…

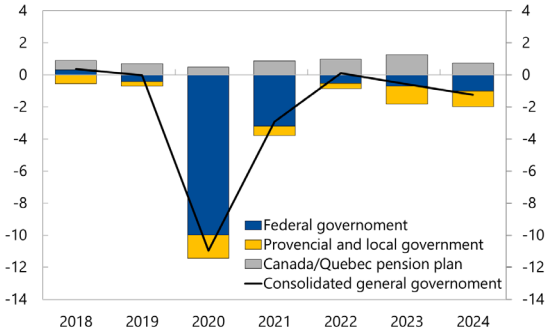
Canada: Decomposition of Changes in General Government Fiscal Balance (Percent of GDP, year-over-year change)



Sources: StatsCan, Department of Finance, and IMF staff calculations.

…driven by a loosening across components of the general government…

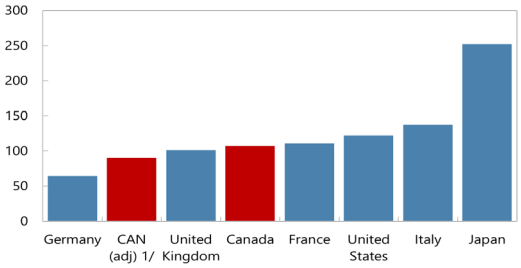
Canada: Budget Balance by Levels of Government
(Percent of GDP)



Sources: StatsCan, Department of Finance, and IMF staff calculations.

…but gross debt remains relatively low in international comparison.

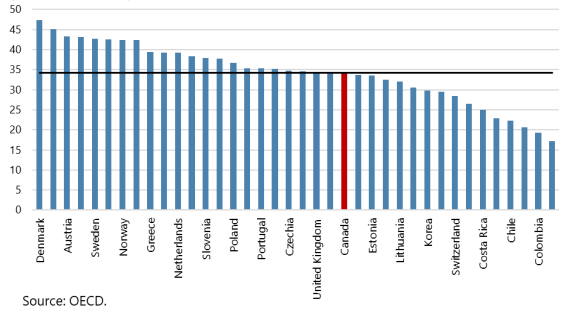
Canada: General Government Gross Debt
(Percent of GDP, 2023)



Sources: IMF World Economic Outlook
1/ Canada (adj) is general government debt adjusted for accounts payable.

While taxes are not low compared to other countries, there are several possibilities for revenue-raising measures.

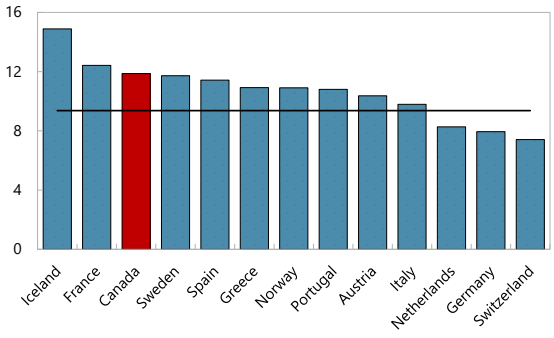
General Government Total Tax Revenue
(Percent of GDP)



Source: OECD.

The government wage bill is relatively high…

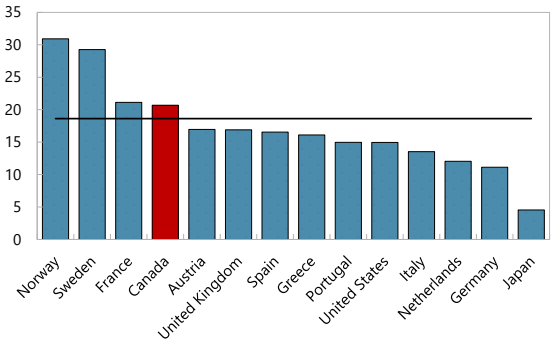
General Government Compensation of Employees, 2022
(Percent of GDP)



Sources: WEO and IMF staff calculations.

…and, to a lesser extent, so is the share of public employment.

General Government Public Employment, 2021
(Share of total employment)

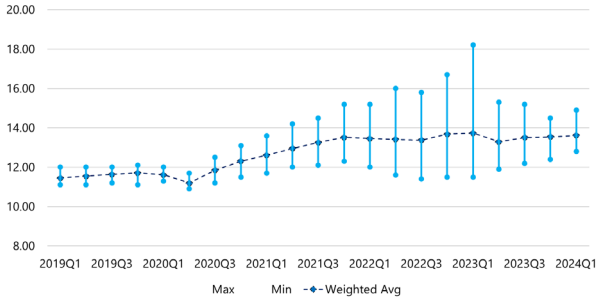


Sources: OECD

Figure 8. Canada: Financial Sector

The "Big 6" banks are well capitalized…

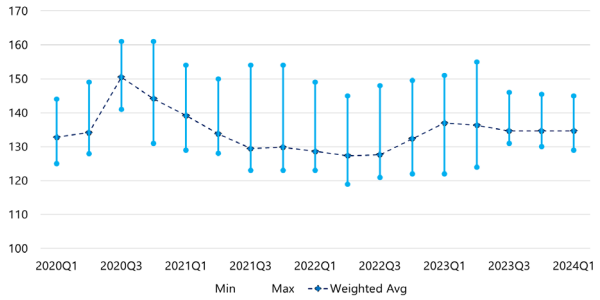
Canada: Largest 6 Banks - Common Equity Tier 1 Ratio
(Percent)



Source: S&P Capital IQ, covering firms that issue publicly traded securities, and IMF staff calculations.

…and highly liquid.

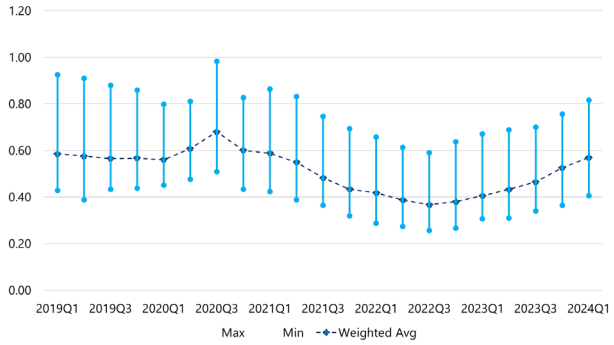
Canada: Largest 6 Banks - Liquidity Coverage Ratio
(Percent)



Source: S&P Capital IQ, covering firms that issue publicly traded securities, and IMF staff calculations.

Asset quality remains strong…

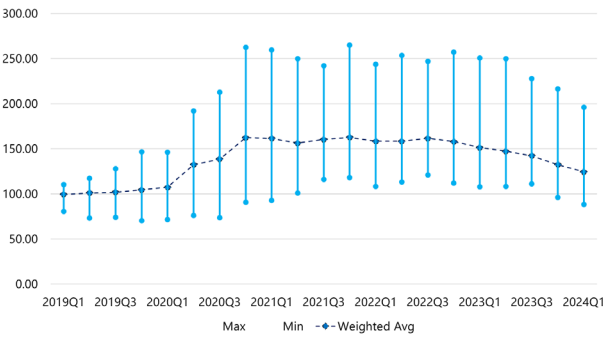
Canada: Largest 6 Banks - NPL Ratio
(Percent)



Source: S&P Capital IQ, covering firms that issue publicly traded securities, and IMF staff calculations.

…as does loan loss provisioning.

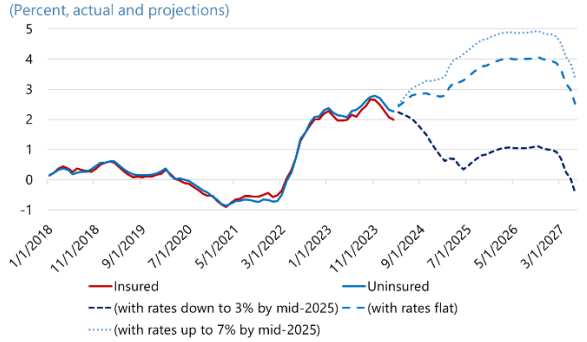
Canada: Largest 6 Banks - NPL Provisioning Ratio
(Percent)



Source: S&P Capital IQ, covering firms that issue publicly traded securities, and IMF staff calculations.

Many pandemic-era low-interest-rate mortgages are expected to reset in the near term.

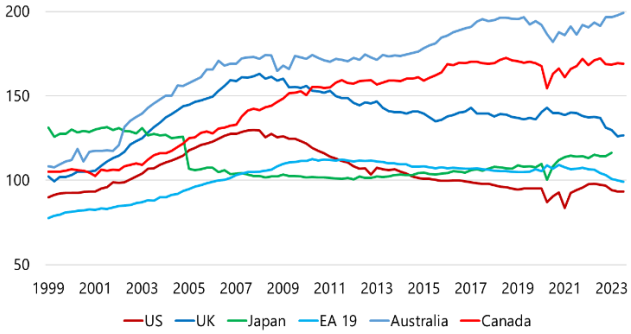
Canada: Potential Rate Change For 5-year Mortgage Loans Renewal Clause
(Percent, actual and projections)



Sources: BoC and IMF staff calculations.

Household indebtedness has risen.

Canada: Households & NPISHs Debt Outstanding
(Percent, Share of Disposable Income)



Sources: Haver Analytics and IMF staff calculations.

Table 2. Canada: Selected Economic Indicators, 2020–29 1/

(Percentage change, unless otherwise indicated)

Nominal GDP (2022): Can$ 2,785 billion (US$ 2,139 billion) Quota: SDR 11,023.9 million
GDP per capita (2022): US$ 54,015 Population (2022): 39.6 million
Main exports: Oil and gas, autos and auto parts, gold, lumber, copper.

					Est.				Proj.	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Output and Demand										
Real GDP	-5.0	5.3	3.8	1.2	1.3	2.4	2.0	1.8	1.8	1.6
Total domestic demand	-6.1	6.5	5.1	-0.3	1.4	2.9	2.3	2.1	2.1	1.9
Private consumption	-6.3	5.1	5.1	1.7	2.8	3.6	2.7	2.7	2.8	2.6
Total investment	-7.0	14.3	7.1	-6.0	-0.9	3.0	2.4	1.9	1.7	1.6
Net exports, contribution to growth	0.3	-1.8	-1.4	1.5	-0.2	-0.5	-0.3	-0.3	-0.3	-0.3
Output gap 1/	-3.4	-1.4	0.8	0.0	-0.6	-0.1	0.0	0.0	0.1	0.1
Unemployment and Inflation										
Unemployment rate (average) 2/	9.7	7.5	5.3	5.4	6.2	6.3	6.0	6.0	6.0	6.0
CPI inflation (average)	0.7	3.4	6.8	3.9	2.5	2.0	2.0	2.0	2.0	2.0
Saving and Investment 3/										
Gross national saving	20.7	24.3	25.0	23.3	23.4	23.4	23.1	22.8	22.5	22.2
General government	-6.8	0.7	3.4	2.6	1.8	1.9	1.9	1.8	1.9	1.9
Private	27.5	23.6	21.6	20.7	21.6	21.5	21.2	21.0	20.6	20.3
Personal	32.5	21.5	10.4	11.0	14.4	12.8	11.2	10.5	9.8	9.9
Business	-5.0	2.1	11.2	9.7	7.3	8.7	10.0	10.5	10.8	10.3
Gross domestic investment	22.7	24.3	25.4	24.0	23.5	23.5	23.5	23.5	23.5	23.4
General Government Fiscal Indicators 2/ (NA basis)										
Revenue	41.4	42.5	41.1	41.9	41.3	41.2	41.1	41.2	41.2	41.3
Expenditures	52.4	45.4	41.0	42.5	42.5	42.2	42.1	42.0	41.9	41.8
Overall balance	-10.9	-2.9	0.1	-0.6	-1.2	-1.0	-0.9	-0.8	-0.7	-0.5
Structural balance 1/	-8.2	-1.9	-0.4	-0.6	-0.9	-0.9	-0.9	-0.9	-0.7	-0.6
Gross Debt	118.2	113.5	107.4	107.0	104.9	102.1	100.1	98.4	96.8	95.2
Net debt	16.1	14.3	15.6	12.8	13.4	13.5	13.6	13.5	13.5	13.5
Money and Credit (Annual average)										
Household Credit Growth	5.2	10.8	9.9	5.0	3.6	3.5	3.5	3.5	3.5	3.4
Business Credit Growth	-0.9	-12.7	6.4	3.4	3.6	3.5	3.5	3.5	3.5	3.4
Balance of Payments										
Current account balance 3/	-2.0	0.0	-0.4	-0.7	0.0	-0.1	-0.4	-0.7	-0.9	-1.2
Merchandise Trade balance 3/	-1.8	0.1	0.7	-0.1	0.0	-0.1	-0.4	-0.7	-1.1	-1.4
Export volume (percent change)	-7.7	1.7	2.4	4.5	1.2	2.3	3.0	3.4	3.3	3.1
Import volume (percent change)	-7.0	8.8	5.8	-0.8	1.6	4.3	4.5	4.8	4.8	4.5
Terms of trade	-3.3	13.4	4.7	-6.0	0.5	0.8	0.0	0.0	0.0	0.0

Sources: Haver Analytics and Fund staff calculations.
1/ Percent of potential GDP.
2/ Percent.
3/ Percent of GDP.

Table 3. Canada: Balance of Payments, 2020–29

(Percent of GDP)

				Projections						
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Current Account										
Current account balance	-2.0	0.0	-0.4	-0.7	0.0	-0.1	-0.4	-0.7	-0.9	-0.7
Merchandise trade balance	-1.8	0.1	0.7	-0.1	0.0	-0.1	-0.4	-0.7	-1.1	-0.7
Exports, goods	23.5	25.3	27.7	26.6	26.2	25.9	25.7	25.6	25.5	25.6
Export volume growth (percentage change)	-7.7	1.7	2.4	4.5	1.2	2.3	3.0	3.4	3.3	3.4
Imports, goods	25.4	25.2	27.0	26.6	26.1	26.0	26.1	26.3	26.6	26.3
Import volume growth (percentage change)	-7.0	8.8	5.8	-0.8	1.6	4.3	4.5	4.8	4.8	4.8
Services balance	-0.4	-0.1	-0.6	-0.4	-0.5	-0.4	-0.3	-0.1	0.0	-0.1
Primary Income Balance	0.5	0.2	-0.4	0.0	0.6	0.6	0.4	0.4	0.3	0.4
Secondary Income Balance	-0.3	-0.2	-0.1	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Capital and Financial Accounts										
Financial account balance	2.1	-0.4	0.1	0.9	0.0	0.1	0.4	0.7	0.9	0.7
Direct investment, net	-1.1	-2.2	-1.7	-1.6	-0.8	-1.0	-0.7	-0.2	-0.6	-0.2
Portfolio investment, net	4.1	2.2	5.3	-0.7	1.7	2.6	1.8	0.7	1.9	0.7
Other investment, net 1/	-0.8	0.6	-3.0	3.2	-0.9	-1.4	-0.7	0.1	-0.3	0.1
Capital account balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
International reserves	-0.1	-1.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Statistical discrepancy	-0.1	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum Items										
Terms of trade (percent change)	-3.3	13.4	4.7	-6.0	0.5	0.8	0.0	0.0	0.0	0.0
Net international investment position 2/	51.2	56.1	38.9	57.6	55.7	52.9	50.2	47.5	44.7	47.5
Assets	314.5	317.6	281.2	309.9	305.3	297.8	292.8	287.8	283.6	287.8
FDI	133.8	135.2	122.1	136.5	.	.	.	.	.	.
Portfolio 2/	124.9	130.2	103.3	117.8	.	.	.	.	.	.
Other	50.7	46.8	50.6	52.7	.	.	.	.	.	.
Reserves	5.2	5.4	5.2	5.4	.	.	.	.	.	.
Liabilities	263.3	261.5	242.3	252.3	249.6	244.9	242.6	240.3	238.8	240.3
FDI	88.9	91.6	83.8	86.9	.	.	.	.	.	.
Portfolio 2/	115.2	113.9	100.6	101.9	.	.	.	.	.	.
Other	59.2	56.0	57.9	65.7	.	.	.	.	.	.
Gross external debt	149.1	143.2	134.9	143.2	140.0	137.9	137.4	137.0	137.4	137.0
Real effective exchange rate 3/	-1.1	4.8	-0.7	-3.6	.	.	.	.	.	.

Sources: Haver Analytics and Fund staff calculations.

1/ Includes bank, nonbank, and official transactions other than reserve transactions.

2/ Based on market valuation of portfolio stocks and official international reserves.

3/ Percentage change.

Table 4. Canada: General Government Fiscal Indicators, 2020–29 1/

(Percent of GDP, unless otherwise indicated)

				Projections						
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Federal Government										
Revenue	15.3	16.2	15.3	15.8	15.7	15.7	15.7	15.8	15.8	15.8
Income taxes	10.4	10.7	10.4	10.6	10.7	10.6	10.5	10.6	10.6	10.5
Expenditures	25.3	19.4	15.8	16.5	16.7	16.6	16.5	16.4	16.3	16.3
Program spending	24.3	18.4	14.8	15.1	15.2	15.1	15.1	15.0	14.8	14.6
Transfers	16.1	12.4	9.8	10.2	10.5	10.6	10.6	10.6	10.6	10.4
Capital spending	0.6	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Budgetary balance	-10.0	-3.2	-0.5	-0.7	-1.0	-0.8	-0.8	-0.6	-0.5	-0.5
Cyclically-adjusted balance 2/	-9.2	-2.9	-0.6	-0.7	-0.9	-0.8	-0.8	-0.6	-0.5	-0.5
Net federal debt	27.1	28.5	27.5	25.4	25.1	24.8	24.6	24.0	23.4	22.9
Gross federal debt	57.1	55.0	53.0	51.7	50.3	49.0	47.8	46.6	45.4	44.3
Provincial and Local Governments										
Revenue	28.4	27.5	26.7	26.7	26.7	26.6	26.6	26.5	26.4	26.4
Income taxes	6.8	7.0	6.8	6.9	6.9	6.9	6.9	6.9	6.9	7.0
Expenditures	29.8	28.1	27.1	27.9	27.6	27.5	27.4	27.4	27.3	27.1
Interest payments	1.9	1.7	1.6	1.7	1.7	1.6	1.5	1.5	1.3	1.1
Budgetary balance	-1.4	-0.6	-0.3	-1.1	-1.0	-0.9	-0.8	-0.9	-0.9	-0.7
Canada/Quebec Pension Plans										
Revenue	3.7	3.8	3.7	4.1	3.6	3.6	3.7	3.6	3.6	3.6
Total spending	3.2	2.9	2.8	2.9	2.9	2.9	3.0	3.0	3.0	3.0
Budgetary balance	0.5	0.9	1.0	1.2	0.7	0.7	0.7	0.7	0.6	0.6
Consolidated General Government 3/										
Revenue	41.4	42.5	41.1	41.9	41.3	41.2	41.1	41.2	41.2	41.3
Expenditure	52.4	45.4	41.0	42.5	42.5	42.2	42.1	42.0	41.9	41.8
Overall balance	-10.9	-2.9	0.1	-0.6	-1.2	-1.0	-0.9	-0.8	-0.7	-0.5
Primary balance	-10.5	-3.6	-0.3	-0.2	-0.7	-0.7	-0.6	-0.5	-0.3	-0.2
Cyclically-adjusted balance 2/	-9.3	-2.3	-0.2	-0.6	-1.0	-0.9	-0.9	-0.8	-0.7	-0.6
Fiscal impulse	9.1	-7.0	-2.1	0.4	0.4	-0.1	0.0	-0.1	-0.1	-0.1
Net public debt	16.1	14.3	15.6	12.8	13.4	13.5	13.6	13.5	13.5	13.5
Gross public debt	118.2	113.5	107.4	107.0	104.9	102.1	100.1	98.4	96.8	95.2
Memorandum Items										
Three-month treasury bill (percent)	0.5	0.1	2.3	4.8	3.8	3.0	2.8	2.6	2.5	2.4
Ten-year government bond (percent)	0.8	1.4	2.8	3.3	3.3	3.1	3.1	3.0	3.0	3.0

Sources: Statistics Canada; DoF Canada; provincial budget reports; Haver Analytics; and IMF staff estimates.
1/ National Accounts basis.
2/ Percent of potential GDP.
3/ Includes federal, provincial, territorial, and local governments; and Canada and Quebec pension plans.

Table 5. Canada: Statement of General Government Operations and Balance Sheet, 2014–23 1/

(Percent of GDP, unless otherwise indicated)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Government Operations										
Revenue	38.6	40.0	40.4	40.4	41.1	40.6	41.5	42.6	41.2	41.8
Taxes	26.8	28.2	28.5	28.6	29.0	28.6	29.8	30.2	29.3	29.8
Social contributions	4.6	4.8	4.8	4.6	4.6	4.6	4.8	4.7	4.7	5.1
Grants	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Other revenue	7.2	7.0	6.9	7.2	7.4	7.4	6.9	7.6	7.2	6.9
Total expenditure	38.4	40.0	40.8	40.5	40.7	40.6	52.4	45.4	41.0	42.4
Expense	38.2	39.6	40.3	39.8	40.0	40.3	51.9	45.3	40.5	41.8
Compensation of employees	11.9	12.1	12.2	12.0	12.0	12.0	12.9	12.2	11.6	12.1
Use of goods and services	8.2	8.5	8.6	8.6	8.6	8.5	9.3	8.8	8.7	8.8
Consumption of fixed capital	3.2	3.3	3.3	3.3	3.3	3.3	3.5	3.3	3.2	3.3
Interest	3.2	3.1	3.0	2.9	3.0	3.0	3.0	2.7	2.8	3.2
Subsidies	0.9	0.9	1.0	0.9	1.0	1.1	4.7	2.9	1.4	1.3
Grants	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3
Social benefits	9.0	9.7	10.0	10.0	9.9	10.0	15.6	12.6	10.2	10.3
Other expense	1.7	1.7	1.9	2.0	2.0	2.0	2.6	2.5	2.4	2.6
Net acquisition of nonfinancial assets	0.2	0.4	0.5	0.6	0.6	0.3	0.5	0.1	0.5	0.6
Gross operating balance	3.6	3.7	3.4	3.8	4.3	3.6	-6.9	0.5	3.9	3.3
Net operating balance	0.4	0.4	0.1	0.6	1.1	0.4	-10.4	-2.7	0.7	0.0
Net lending or borrowing	0.2	0.0	-0.4	-0.1	0.4	0.0	-10.9	-2.9	0.2	-0.5
Balance Sheet (Market Value)										
Net worth	1.6	1.4	4.9	13.2	16.2	14.8	8.6	27.2	35.7	34.4
Nonfinancial assets	46.6	42.4	46.8	47.3	47.5	46.1	52.8	60.4	57.4	54.3
Net financial worth	-45.0	-41.0	-41.8	-34.1	-31.3	-31.3	-44.2	-33.2	-21.7	-19.9
Financial assets	70.9	80.6	81.6	85.5	86.1	89.0	110.1	106.6	98.4	101.0
Currency and deposits	4.6	4.7	5.3	5.4	5.4	5.5	10.0	8.3	7.3	7.1
Securities other than shares	13.6	15.4	14.6	14.6	15.0	16.0	17.9	17.7	16.0	16.6
Loans	16.2	19.3	19.0	18.8	18.9	19.4	23.4	23.5	22.3	23.1
Shares and other equity	22.4	25.4	26.4	28.5	29.0	30.3	35.5	35.3	31.6	32.7
Insurance technical reserves	2.1	2.5	2.7	4.0	3.6	4.1	5.2	7.0	6.5	6.3
Other accounts receivable	12.1	13.3	13.5	14.3	14.1	13.6	18.1	14.8	14.8	15.3
Financial liabilities 2/	115.9	121.6	123.4	119.5	117.4	120.2	154.3	139.9	120.1	120.9
Currency and deposits	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
Securities other than shares	77.7	82.0	83.1	79.3	78.4	80.1	108.8	99.3	80.9	83.9
Loans	6.4	7.5	6.3	7.0	6.9	7.5	7.5	7.2	7.0	7.2
Shares and other equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Insurance technical reserves	16.3	15.5	17.4	16.8	15.7	16.7	18.1	14.0	11.9	11.3
Other accounts payable	14.6	15.7	15.7	15.6	15.6	15.2	19.1	17.9	19.0	17.2
Memorandum Items:										
Nominal GDP (in billions of Can$)	1,995	1,990	2,026	2,141	2,236	2,314	2,221	2,517	2,813	2,892

Sources: Statistics Canada; and Haver Analytics.

1/ Government Finance Statistics basis.

2/ Includes unfunded public sector pension liabilities.

Table 6. Canada: Monetary Statistics, 2020–23
(Billions CAD, End of Period, Market Value)

	2020	2021	2022	2023
Monetary Authority				
Net foreign assets	114	134	144	155
Foreign assets	115	135	145	156
Foreign liabilities	1	1	1	2
Deposit-taking corporations				
Net foreign assets	-251	-338	-384	-473
Foreign assets	1360	1415	1674	1885
Foreign liabilities	1611	1753	2058	2358
Chartered Banks				
Net foreign assets	-18	-42	-87	-88
Net domestic assets	4219	4014	4206	5050
Lending to private sector	3077	3354	3645	3822
Residential Mortgages	1324	1472	1565	1609
Business loans (residents and non-residents)	1151	1248	1403	1513
Broad Money M3	2939	3170	3425	3596
Currency outside banks	105	113	117	118
Personal deposits	1217	1272	1404	1503
Non-personal demand and notice deposits	838	958	900	893
Adjustments to M2	-22	-20	-17	-16
Non-personal term deposits	358	319	413	457
Foreign currency deposits of residents	476	549	624	659
Adjustments to M3	-33	-21	-16	-17
Memorandum items 1/	(percent)			
M3 growth	11.5	7.9	8.1	5.0
Chartered bank lending to the private sector growth	2.3	9.0	8.7	4.8
Chartered bank loan to deposit ratio	1.3	1.3	1.3	1.3

Source: Statistics Canada, Bank of Canada, and IMF staff calculations
1/ Computed as the ratio of the change in the stock divided by last period's stock and therefore includes valuation changes.

Table 7. Canada: Financial Soundness Indicators, 2020–23
(Percent, unless otherwise indicated)

	2020	2021	2022	2023
Total Assets				
Total assets 1/	6,971	7,267	8,097	8,536
Percent of GDP	314.0	288.7	287.8	295.1
Capital Adequacy				
Total capital ratio	16.1	17.1	17.3	17.1
Tier 1 ratio	13.9	15.1	15.3	15.2
Capital to assets	4.6	4.8	4.9	4.7
Credit Risk				
NPLs net of provisions to capital	4.2	2.9	2.6	3.8
NPLs to Gross Loans	0.5	0.4	0.3	0.5
Profitability				
Return on assets	0.8	1.1	1.2	0.8
Return on equity	13.2	17.3	18.2	12.0
Interest margin on gross income	56.4	54.0	54.2	56.6
Trading income to gross income	4.2	3.4	6.3	5.7
Non-interest expenses to gross income	56.1	56.6	53.6	62.2
Liquidity				
Liquid assets to total assets	15.4	15.1	13.4	12.1
Liquid assets to short-term liabilities	78.0	79.5	58.5	49.2
Customer deposits to loans	109.5	113.1	109.5	107.0
Real estate markets				
Residential real estate loans to total loans	34.5	36.4	35.0	35.0
Commercial real estate loans to total loans	3.4	3.4	3.2	3.2
FX and Derivative Risk				
FX Assets to Total Assets	43.9	50.6	52.5	0.0
FX loans to total loans	37.8	35.8	38.9	39.6
FX liabilities to total liabilities	52.9	42.9	58.8	65.9

Sources: IMF FSI database; and IMF staff calculations

1/ Billions of Canadian dollars.

Table 8. Canada: Selected Macro-critical Gender-related Indicators, 2020–22

	Advanced Economies 1 /				
	2020	2021	2022	Latest year available	Average
Composite Gender Indices					
Female Human Capital Index (HCI) 2/	0.81	...	...	2020	0.78
Gender Development Index (GDI)	0.99	0.99	0.99	2022	0.98
Gender Inequality Index (GII) 3/	0.08	0.07	0.07	2022	0.08
Global Gender Gap Index 2/	0.77	0.77	0.77	2022	0.76
Women Business and the Law Index (WBL) 4/	100.00	100.00	100.00	2022	94.65
Labor and Income					
Gender Gap (F-M) in Employment-to-Population Ratio, Modeled ILO Estimate (15-64 yrs)	-8.08	-8.09	-7.59	2022	-11.43
Gender Wage Gap 5/	...	...	...	...	...
Gender Gap (F-M) in Informal Employment Rate	...	...	...	...	...
Gender Gap (F-M) in Labor Force Participation Rate, Modeled ILO Estimate (15-64 yrs)	-9.13	-9.00	-8.20	2022	-11.82
Gender Gap (F-M) in Unemployment Rate, Modeled ILO Estimate (15-64 yrs)	-0.26	-0.35	-0.27	2022	0.21
Gender Gap in Gross Pension Replacement Rate (as share of average worker earnings)	...	...	0.00	2022	1.07
Leadership and Social					
Proportion of Seats Held By Women in National Parliaments	28.99	30.47	30.47	2022	33.62
Proportion of Women in Managerial Positions	35.80	35.60	...	2020	33.73
Prevalence of Intimate Partner Violence among Ever-partnered Women (in percent) 3/	...	...	...	2018	22.11
Access to Finance					
Gender Ratio: Number of Household Loan Accounts with Commercial Banks 8/	...	...	...	...	...
Gender Ratio: Number of Household Deposit Accounts with Commercial Banks 8/	...	...	...	...	...
Gender Gap in Adults Who Borrowed From a Financial Institution 9/	...	0.38	...	2021	-0.89
Gender Gap in Adults Who Own a Financial Institution Account 9/	...	-0.26	...	2021	1.08
Gender Gap in Adults with Mobile Money Account 9/	...	...	...	...	...
Gender Gap in Adults Who Made or Received Digital Payments in the Past Year 9/	...	0.02	...	2021	1.31
Education					
Gender Gap (F-M) in Adult Literacy Rate	...	...	...	...	...
Gender Gap (F-M) in Mean Years of Schooling	0.19	0.19	0.19	...	...
Gender Gap (F-M) in Primary Gross Enrollment Rate 6/	-0.96	-0.74	...	2021	-0.26
Gender Gap (F-M) in Secondary Gross Enrollment Rate 6/	0.10	-0.25	...	2021	0.52
Gender Gap (F-M) in Tertiary Gross Enrollment Rate 6/	22.98	25.46	...	2021	23.44
Health					
Gender Gap (F-M) in Adult Mortality Rate per 1,000 Adults 7/	-40.16	...	...	2020	-42.08
Gender Gap (F-M) in Life Expectancy at Birth	4.47	4.05	...	2021	5.22
Maternal Mortality Ratio per 100,000 Live Births, Modeled Estimate (15-49 yrs) /3	11.00	...	...	2020	9.00
Total Fertility Rate (Births Per Woman)	1.41	1.43	...	2021	1.53

Source: GenderDataHub /10

1/ Group aggregates are calculated where data are available for at least 50 percent of countries for a given indicator, and for weighted averages, where the relevant weights are also available. Data are reported for the latest year for which aggregates are available. Detailed metadata,

2/ This index is scored on a scale of 0-1, with a higher score corresponding to better outcomes for women.

3/ A higher value on this indicator corresponds to worse outcomes for women. For example, the Gender Inequality Index is scored on a scale of 0-1, where a higher score indicates higher inequality.

4/ The Women, Business, and the Law Index is reported on a scale of 0-100, with a higher score corresponding to better outcomes for women.

5/ The Gender Wage Gap is the difference between average earnings of men and average earnings of women expressed as a percentage of average earnings of men (as calculated by the International Labor Organization). The gap listed here is for Occupation = "Total" under the ICSO 08 Classification.

6/ Gross enrollment rates can exceed 100% due to the inclusion of over-aged and under-aged pupils/students because of early or late entrants, and grade repetition.

7/ The adult mortality rate refers to the probability that those who have reached age 15 will die before reaching age 60 (shown per 1,000 persons). In other words, a value of 150 means that out of 1,000 persons who have reached age 15, 150 are expected to die before reaching age 60, and 850 are expected to survive to age 60. This is based on a "synthetic cohort": current life-table mortality rates are applied to the

8/ Females' Accounts per 1,000 Female Adults/ Males' Accounts per 1,000 Male Adults.

9/ Share of Female - Share of Male, percentage points.

10/ See Gender Data Hub metadata for original data sources and definitions.

Annex I. The Economic Impact of Immigration

This annex discusses the economic impact of immigration as identified in the literature. Despite presenting significant short-term challenges, immigration is typically found to have a positive impact on economic growth in recipient countries.

Introduction

1. The stock of international migrants is growing and represents an important share of Canada's population. According to the latest UN estimates (2020), the stock of international migrants exceeded 280 million, or about 3.5 percent of the world population, and almost three-quarters of these were of working age. Most international migrants reside in Asia and Europe (31 percent each), followed by North America (21 percent). In Canada, according to the 2021 Census, the number of immigrants reached 8.4 million, about 23 percent of the population, and an additional 1.3 million people were born of an immigrant parent.

2. Immigration has the potential to have an impact, for better or for worse, on key drivers of growth. The April 2024 WEO Chapter 4 attributes the slowdown in global real GDP growth to declining total factor productivity (TFP) growth, weaker private capital formation, and slower working age population growth.[1] Immigration can address all three of these factors and support overall growth—although, under certain circumstances, it could instead exacerbate some of these problems. By bringing in new potential workers, immigration can boost a country's working-age population, but it can also change the composition of the workforce's human capital by either substituting for or complementing the skills of the native population. If this changed composition leads to a rise in the marginal product of capital, investment may rise in turn, but it may also be that the increased availability of labor may incentivize a shift toward more labor-intensive production and a concomitant decline in investment. The changing composition of human capital could also boost or reduce TFP growth. Increased diversity could expand the knowledge base and foster innovation and discovery, but such an effect could be lessened if immigration negatively affects social cohesion.

3. Beyond its impact on economic growth, immigration can significantly affect the welfare of native-born workers. On the one hand, immigrants may compete with native-born workers, reducing wages and job opportunities, but on the other hand, if immigrants complement rather than substitute for native-born workers, everyone may benefit. Immigration may also put a strain on housing, infrastructure, and the provision of public services, but at the same time, if immigrants bring skills that are in short supply, they may contribute more to the supply of those factors than to demand (e.g., in the case of skilled tradespeople immigrating to Canada and working in housing construction).

[1] Maestas, Mullen and Powell find that between 1980–2010 population aging in the US reduced the growth rate in GDP per capita by 0.3 percentage points. 1/3 of the effect is due to a slower employment growth while 2/3 are due to slower productivity growth.

In short, immigration has the potential to have wide-ranging effects on an economy, both positive and negative. But in practice, the literature has generally found positive impacts.

Immigration and Growth

4. The literature typically finds that immigration supports economic growth and higher productivity. For a group of OECD countries during 1980–2018, Chapter 4 of the April 2020 WEO finds that a 1 percentage point increase in the ratio of the immigrant flows to total employment can increase output by almost 1 percent by the fifth year. About two-thirds of the increase is attributed to an increase in labor productivity, with only one-third due to employment growth. TFP increases almost one-to-one with labor productivity because the capital stock responds immediately to the higher employment and TFP. Other empirical studies on immigration, including Peri (2011), Ortega and Peri (2014), Alesina, Harnoss, and Rapoport (2015), Jaumotte, Koloskova, and Saxena (2016), Chapter 4 of the October 2016 WEO, and Li (2021) also find a positive effect of immigration on TFP in recipient countries, even in the short-term (Beerli and others 2021). These studies attribute the positive impact of immigration on labor productivity to the complementarity between native and immigrant workers that allows native workers to move into new occupations and upgrade their skills as immigrants enter the labor market, leading to economy-wide gains from specialization. The positive growth effects of immigration may be less pronounced when unemployment in the recipient country is high (see Auslund and Rooth 2007). Furthermore, immigration resulting from persecution and conflict in the origin country may not yield obvious growth benefits.

5. A direct positive impact of immigration on TFP through innovation is also present. Burchardi and others (2021) find a causal link between migration and innovation, measured as patenting of local firms, as the large inflow of foreign migrants into the US since 1965 contributed an additional 8 percent growth in innovation and a 5 percent growth in wages. Similarly, Beerli and others (2021) discovered increased innovation by incumbent firms in Switzerland, particularly among those experiencing skill shortages before the immigration reform. Farlier and Lofstrom (2015) summarize the literature on immigration and entrepreneurship, noting positive net contributions by immigrant entrepreneurs to innovations, with immigrant business owners more likely to export.

6. Regarding the impact of immigration on capital accumulation, findings are mixed. While previously cited studies suggest rapid capital adjustment to immigration, Fourlanetto and Robstad (2019) found a negative impact of immigration on labor productivity in Norway, for the period Q1:2009–Q2:2014, attributed to a decline in capital intensity following an exogenous immigration shock. They also, however, observed lower unemployment, a small positive effect on prices and public finances, and no effect on house prices and household credit.

7. The literature on the economic impacts of immigration in Canada is also mixed. Dugan, Fang, and Gunderson (2013) identify a positive impact of immigration on GDP, GDP per capita, productivity and investment, as well as on net government balances, without an impact on unemployment. However, Blit, Skuterud, and Zhang (2020) find a limited impact of STEM-educated immigrants on innovation, possibly on account of their lower employment rate in STEM jobs (only one-third of those immigrants are employed in STEM jobs, compared to about 40 percent of

Canadian-born citizens). The authors conclude that under similar circumstances, skilled immigration might not have a large effect on innovation.

Immigration: Employment and Distribution Considerations

8. Most of the literature finds little impact of migration on the real wages of native workers (Kiguchi and Mountford 2013), even in the presence of large waves of immigration (Engler and others 2023):

- Many of the studies cited in Section II above, which emphasize the complementarity of immigrants' skills, tend not to find a negative impact of migration on average wages and employment of native workers. If, however, immigrants are perfect substitutes for, or less skilled than, native workers, then immigration can reduce per capita income since it results in diminishing marginal productivity of labor (see Borjas, 2019).

- Chapter 4 of the April 2020 WEO found no negative impact of immigration on employment growth among the native-born population.

- For France, between 1994–2008, D'Albis and Boubtane (2016) found that immigration flows increased GDP per capita and reduced the unemployment rate. A 1 percent shock in immigration increased per capita GDP by 0.4 percent within a year. The effect was particularly pronounced in the case of family-based immigration compared to purely labor-based immigration. Family-based immigrants, who were often less educated than the native labor force, fit well in the market for home services, allowing native women to increase their labor force participation. Family-based immigrants also contributed more to consumption in the host country, whereas labor migrants devote a substantial share to remittances.

- Another potential positive effect of family-based immigration on per capita GDP was suggested by Hunt (2012) who found that in the US, an increase in the share of immigrants aged 11–64 increases the probability of natives' completing 12 years of education, as the potential negative impact of immigration on the wages earned by those with lower education generates a higher return on completing high school.

9. Nevertheless, immigration might foster inequality as it might not equally benefit migrant and native populations. For Canada and the US between 1990–2006, using large-scale census data, and accounting for the changing composition of immigrants, Kaushal and Lu (2018) found that although Canada attracted more educated migrants than the US, those migrants experienced an entry-level wage disadvantage relative to the native workers and to immigrants in the US. Immigration has also been associated with higher housing prices, and rents (see Mussa, Nwaogu, and Pozo 2017), which might exacerbate affordability issues, undermining social support for immigration.

10. Difficult economic conditions can also influence social views on immigration, and these in turn may induce negative economic outcomes:

- For example, Ruist (2016) estimated that in 2012 the number of individuals in the average European country opposing immigration from poorer countries was 40 percent higher than it would have been if macroeconomic conditions in that year had been as good, as in 2006.

- Decreased social cohesion around immigration can reduce support for the provision of public goods, including education and infrastructure, (Alesina, Baqir, and Easterly 1999, and Speciale 2012) potentially leading to long-term effects on the economy's productive capabilities.

- Distributional concerns and fears of a deterioration in the provision of public goods may prompt a hostile attitude toward immigration. For example, in Austria in the early 1980s and late 1990s, Halla, Wagner and Zweimuller (2017) found an increased vote share for right-wing parties, and a negative effect of immigration on amenities, with communities experiencing a larger influx of immigrants having fewer daycare resources and longer school commutes.

- Facchini, Margalit, and Nakata (2022), however, in a large-scale randomized experiment in Japan found that exposure to information about social and economic problems that immigration could help address, such as population aging and labor shortages, increased support for a more open immigration policy. This suggests that information campaigns could lessen the opposition to immigration, reducing potential negative effects on growth stemming from social polarization based on political views about immigration.

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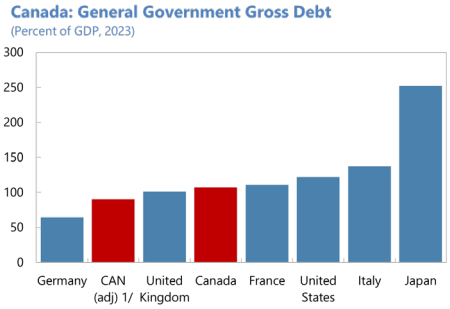
Annex II. External Sector Assessment

Overall Assessment: *The external position in 2023 was moderately weaker than the level implied by medium-term fundamentals and desirable policies.* The external current account deficit widened slightly in 2023, mainly reflecting worsened terms of trade as energy and commodity prices normalized following the start of Russia's war in Ukraine. The widening of the CA deficit occurred despite a *moderation* in domestic demand reflected in lower goods imports (-0.8 percent decrease), higher goods exports reflecting stronger US demand, and a weakening in the real exchange rate. **Potential Policy Responses:** Policies should aim to boost Canada's competitiveness in non-fuel goods exports and in services exports and to diversify Canada's export markets. These policies include: (i) introducing measures to improve labor productivity; (ii) removing nontariff trade barriers; (iii) investing in R&D and physical capital; (iv) investing in the green transformation; and (v) promoting FDI. Further, industrial policies should be pursued cautiously, remain narrowly targeted to specific objectives where externalities or market failures prevent effective market solutions, and aim to minimize trade and investment distortions. Tighter near-term fiscal policies as well as a medium-term fiscal consolidation plan would also help in stabilizing debt and supporting external rebalancing.	
Foreign Asset and Liability Position and Trajectory	**Background.** Canada's NIIP position rose sharply to 57.6 percent of GDP in 2023 from 38.9 percent of GDP in 2022 (and up also from the 5-year average of 40.7 percent of GDP), reflecting a rise in global equity prices (in the context of a somewhat weaker currency). Gross external debt increased to 143.2 percent of GDP (from 134.9 percent of GDP in 2022), of which around 41 percent is short term. **Assessment.** Canada's foreign assets have a higher foreign-currency component than its liabilities do, which provides a hedge against currency depreciation. The NIIP level and trajectory are sustainable.
2023 (% GDP)	NIIP: 57.6 | Gross Assets: 309.9 | Debt Assets: 84.0 | Gross Liab.: 252.3 | Debt Liab.: 143.2
Current Account	**Background.** The estimated CA deficit reached 0.7 percent of GDP in 2023, slightly higher than the 0.4 percent of GDP deficit in 2022, mainly on account of lower energy prices (with the terms of trade fell by 6 percent y/y). But with savings somewhat higher than—and investment broadly in line with—the 2019-22 average, the CA deficit in 2023 was somewhat smaller than the average CA deficit of 1.1 percent of GDP during 2019-22. The current account is expected to remain in slight deficit over the medium run. Export growth is projected to slow whereas import growth is projected to pick up on the back of recovering domestic demand, which is supported by a slightly expansionary near-term fiscal stance. **Assessment.** The cyclically adjusted CA was -1 percent of GDP in 2023, as against the EBA's CA norm for Canada of 2.3 percent of GDP, implying a gap of -3.3 percent of GDP for 2023. Part of this gap, however, is explained by biases in measuring inflation and retained earnings.[1] Taking these factors into account, IMF staff assess the CA gap to be in the range between -2.2 and -1.3 percent of GDP, with a midpoint of -1.8 percent of GDP.
2023 (% GDP)	CA: -0.7 | Cycl. Adj. CA: –1 | EBA Norm: 2.3 | EBA Gap: –3.3 | Other Adj.: 1.5
Real Exchange Rate	**Background.** The average REER for 2023 was 3.6 percent below the 2022 average, largely reflecting the strength of the US dollar. The REER in 2023 was around 2 percent weaker than the 2019-22 average. As of April 2024, the REER had depreciated by 1.3 percent relative to the 2023 average. **Assessment.** The EBA REER index model points to an overvaluation of 0.5 percent in 2023, while the REER level model suggests an undervaluation of 12.9- percent. Consistent with the staff CA gap, staff assess the REER to be overvalued by between 5.1 and 8.3 percent, with a midpoint of 6.7 percent (with a semi-elasticity of the CA with respect to the REER at 0.27).
Capital and Financial Accounts: Flows and Policy Measures	**Background.** The financial account recorded net inflows due to other investments, moderated by outflows in FDI and portfolio investments. Specifically, FDI saw net outflows of 1.6 percent of GDP in 2023 (comparable with levels in 2022 and 2021) as did net portfolio flows of around 0.7 of GDP, moving from inflows of around 5.3 percent of GDP in 2022. This was offset by other investments which recorded inflows of around 3.2 percent of GDP as opposed to net outflows in 2022 of around 3 percent of GDP. Errors and omissions were small at 0.2 percent of GDP. **Assessment.** Canada has an open capital account. Vulnerabilities are limited by a credible commitment to a floating exchange rate.
FX Intervention and Reserves Level	**Background.** Canada has a free-floating exchange rate regime and has not intervened in the FX market since September 1998 (except for participating in joint interventions with other central banks). Canada has limited reserves, but its central bank has standing swap arrangements with the US Federal Reserve and four other major central banks. (The Bank of Canada has not drawn on these swap lines.) **Assessment.** Policies in this area are appropriate to the circumstances of Canada. The authorities are strongly committed to a floating regime which, together with the swap arrangements, reduces the need for reserve holdings.
Notes	1/ Inflation compensation is not recorded in the income balance, which is recorded in nominal terms. This yields an estimated downward bias of 0.9 percent of GDP. Further, retained earnings on portfolio equity are not recorded, but can be estimated from stock positions, financial market data, and the national accounts. The downward bias from this is estimated to amount to 0.6 percent of GDP, yielding a total estimated downward bias on the income balance of 1.5 percent of GDP.

Annex III. Sovereign Risk and Debt Sustainability Assessment

Staff's assessment is that the overall risk of sovereign stress in Canada is low and the country has some fiscal space. After two consecutive years of successful consolidation, the reduction of public debt stalled in 2023 with gross debt remaining broadly unchanged from 2022, at about 107 percent of GDP. Under the baseline scenario, the gross debt-to-GDP ratio is projected to resume its declining path from 2024 onward, on account of strong economic growth, reaching 95¼ percent over the medium term. The medium-term risk assessment indicates moderate debt stress and liquidity risk, but the government's holdings of large financial assets (about 94¼ percent of GDP at end-2023) would provide a comfortable buffer.

1. Background. General government consolidated gross debt stood at about 107 percent of GDP at end-2023, nearly 17 percentage points above the pre-pandemic level.[1] Excluding accounts payable (in line with common international practice), gross debt was about 90 percent of GDP in 2023, among the lowest in the G7. It is also important to note that Canada's general government holds sizable financial assets (about 94¼ percent of GDP at market value at end-2023), including currency and deposits, debt securities, loans, and equity holdings.[2] Around one-quarter of these assets are highly liquid (currency, deposits, and bonds) and about 30 percent are invested in equity and investment shares, of which more than half relate to pension fund investments. The net debt-to-GDP ratio—calculated as the difference between total liabilities and total financial assets—fell to 12¾ percent in 2023 from its peak of 16 percent in 2020.[3]



2. Market perceptions. Confidence in Canada's sovereign debt remains high. Canada had AAA ratings from all 3 major ratings agencies from 2002 until June 2020, when Fitch downgraded it to AA+. As of end May 2024, Canada's benchmark ten-year bond yields were around 3¾ percent, about 76 basis points below U.S. ten-year Treasury yields.

3. Baseline. The fiscal stance is expected to ease in 2024 followed by a moderate tightening over the medium term. The primary balance at the consolidated general government level is projected to worsen in the near term before declining gradually to –¼ percent of GDP in 2029.

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[1] Gross debt at the general government consolidated level includes debt held by the federal government, provincial and territorial governments, local governments, and social security funds.

[2] General government holdings of financial assets rose sharply during the pandemic, from 81½ percent of GDP in 2019 to about 102 percent in 2020 before falling modestly to 94¼ percent of GDP in 2023. Part of the increase was driven by implementation of COVID-19 emergency support measures—such as loans to business and tax deferrals (account receivables)—and frontloading government borrowing, which are expected to wind down over the medium term.

[3] Canada's net debt corresponds to net financial liabilities as reported by Statistics Canada and includes sizable equity and investment fund shares (about 30 percent of total financial assets). Statistics Canada introduced a methodological change in December 2022 to value assets at market value instead of book value, which substantially revised down net debt from 1990 to 2022. For further details, see "An overview of revisions to the Financial and Wealth Accounts, 1990 to 2022."

- Gross debt dynamics. The gross debt-to-GDP ratio is projected to decline from its peak of 118 percent in 2020 to about 95¼ percent by 2029, reflecting fiscal consolidation, particularly over the past two years, and favorable growth-interest rate differentials.
- Net debt dynamics. The general government has sizable financial assets, with around one quarter being highly liquid. The net debt ratio is expected to decline to about 13½ percent by 2029 from its peak of 16 percent in 2020.
- Gross financing needs. Gross financing needs were 16¼ percent of GDP in 2023. Government borrowing costs are expected to increase as monetary policy remains restrictive, but nevertheless, gross financing needs are expected to remain within the range of 20-22½ percent of GDP through the projection horizon—higher than the recent historical average but similar to levels in 2009–13.

4. Realism. Projection errors in recent years for real GDP growth, the primary balance, and inflation were moderate and broadly in line with those in other economies.[4] There is no evidence of a systematic projection bias in the baseline assumptions that could undermine the SRDSA. Projected fiscal adjustment in the near term is realistic, close to the median range of adjustment in historical and cross-country experience.

5. Accounting issues for international comparisons:

- Canada 's general government gross debt includes sizable accounts payable (17.2 percent of GDP at end-2023), which many advanced economies do not report.
- Canada reports general government net debt as total liabilities less total financial assets, which includes sizable equity and investment fund shares. Most other advanced economies remove both accounts payable and receivable as well as equity holdings.
- Unfunded pension liabilities are included in Statistics Canada's reporting of general government gross debt, but are excluded as reported here, so as to maintain comparability with other countries.

[4] That said, there were large errors in forecasting the primary balance in 2020 and inflation in 2021, when uncertainty was particularly large.

Annex III. Figure 1. Risk of Sovereign Stress

Horizon	Mechanical signal	Final assessment	Comments
Overall	...	**Low**	Staff's assessment of the overall risk of sovereign stress is low, as risks in the near and medium terms are mitigated by the government's sizeable holdings of financial assets and the strength of institutions.
Near term 1/			
Medium term	**Low**	**Low**	Medium-term risks are assessed as low, aligned with the aggregate mechanical signal. While the debt fanchart and the GFN modules point to mechanical moderate risk signals, risks are mitigated by the government's large liquid asset holdings.
Fanchart	**Moderate**	...	
GFN	**Moderate**	...	
Stress test	...	...	
Long term	...	**Low**	Staff assess the long-term risk of sovereign stress is low. While debt amortization is expected to remain high in the long run relative to the historical levels, the expected fiscal consolidation and the government's large holdings of financial assets are expected to mitigate the risk.
Sustainability assessment 2/	Not required for surveillance countries	Not required for surveillance countries	
Debt stabilization in the baseline			Yes

DSA Summary Assessment

Commentary: The overall risk of sovereign stress in Canada is low. Following a sharp increase due to sizable COVID-19 emergency support, public debt has come down off its peak in 2020. Under the baseline scenario, the gross debt-to-GDP ratio is projected to continue declining over the medium term, reflecting fiscal consolidation and favorable growth-interest rate differentials. While the debt fanchart module indicates a moderate risk signal, the government's sizable financial assets would provide a comforable buffer. Medium-term liquidity risks as analyzed by the GFN Financeability Module are moderate. Long-term risk of sovereign stress remains low, as the risks associated with large potential debt amortization are mitigated by the government's large asset buffers.

Source: Fund staff.

Note: The risk of sovereign stress is a broader concept than debt sustainability. Unsustainable debt can only be resolved through exceptional measures (such as debt restructuring). In contrast, a sovereign can face stress without its debt necessarily being unsustainable, and there can be various measures—that do not involve a debt restructuring—to remedy such a situation, such as fiscal adjustment and new financing.

1/ The near-term assessment is not applicable in cases where there is a disbursing IMF arrangement. In surveillance-only cases or in cases with precautionary IMF arrangements, the near-term assessment is performed but not published.

2/ A debt sustainability assessment is optional for surveillance-only cases and mandatory in cases where there is a Fund arrangement. The mechanical signal of the debt sustainability assessment is deleted before publication. In surveillance-only cases or cases with IMF arrangements with normal access, the qualifier indicating probability of sustainable debt ("with high probability" or "but not with high probability") is deleted before publication.

Annex III. Figure 2. Debt Coverage and Disclosures

						Comments
1. Debt coverage in the DSA: 1/	CG	GG	NFPS	CPS	Other	
1a. If central government, are non-central government entities insignificant?					n.a.	
2. Subsectors included in the chosen coverage in (1) above:						

			Subsectors captured in the baseline	Inclusion	
CPS / NFPS / GG: expected / CG	1	Budgetary central government	Yes	
	2	Extra budgetary funds (EBFs)	No	Not applicable
	3	Social security funds (SSFs)	Yes	
	4	State governments	Yes	
	5	Local governments	Yes	
	6	Public nonfinancial corporations	No	
	7	Central bank	No	
	8	Other public financial corporations	No	

3. Instrument coverage:	Currency & deposits	Loans	Debt securities	Oth acct. payable 2/	IPSGSs 3/

4. Accounting principles:	Basis of recording		Valuation of debt stock		
	Non-cash basis 4/	Cash basis	Nominal value 5/	Face value 6/	Market value 7/

5. Debt consolidation across sectors:	Consolidated	Non-consolidated

Color code: chosen coverage; Missing from recommended coverage; Not applicable

Reporting On Intra-government Debt Holdings

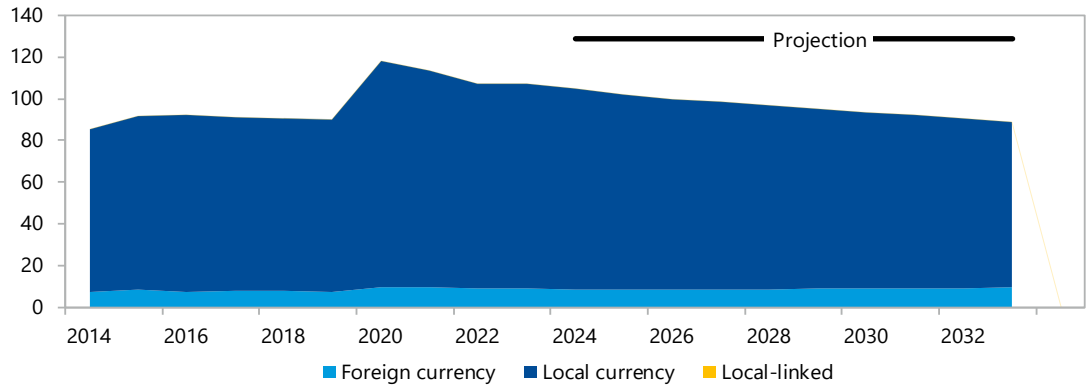
Issuer \ Holder				1 Budget. central govt	2 Extra-budget. funds	3 Social security funds	4 State govt.	5 Local govt.	6 Nonfin. pub. corp.	7 Central bank	8 Oth. pub. fin corp	Total
CPS / NFPS / GG: expected / CG	1	Budget. central govt										
	2	Extra-budget. funds										
	3	Social security funds										
	4	State govt.										
	5	Local govt.										
	6	Nonfin pub. corp.										
	7	Central bank										
	8	Oth. pub. fin. corp										
		Total										

1/ CG=Central government; GG=General government; NFPS=Nonfinancial public sector; PS=Public sector.
2/ Stock of arrears could be used as a proxy in the absence of accrual data on other accounts payable.
3/ Insurance, Pension, and Standardized Guarantee Schemes, typically including government employee pension liabilities.
4/ Includes accrual recording, commitment basis, due for payment, etc.
5/ Nominal value at any moment in time is the amount the debtor owes to the creditor. It reflects the value of the instrument at creation and subsequent economic flows (such as transactions, exchange rate, and other valuation changes other than market price changes, and other volume changes).
6/ The face value of a debt instrument is the undiscounted amount of principal to be paid at (or before) maturity.
7/ Market value of debt instruments is the value as if they were acquired in market transactions on the balance sheet reporting date (reference date). Only traded debt securities have observed market values.

Commentary: The coverage in this SRDSA is at the general government consolidated level, which includes the federal government, provincial and territorial governments, local governments, and social security funds.

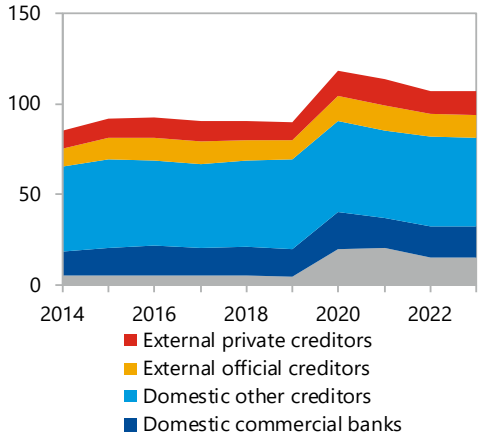
Annex III. Figure 3. Public Debt Structure Indicators

Debt By Currency (Percent of GDP)



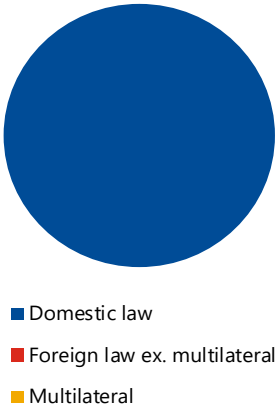
Note: The perimeter shown is general government.

Public Debt By Holder (Percent of GDP)



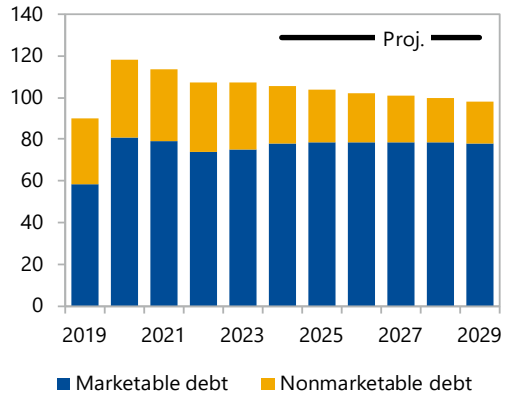
Note: The perimeter shown is general government.

Public Debt By Governing Law, 2023 (Percent)



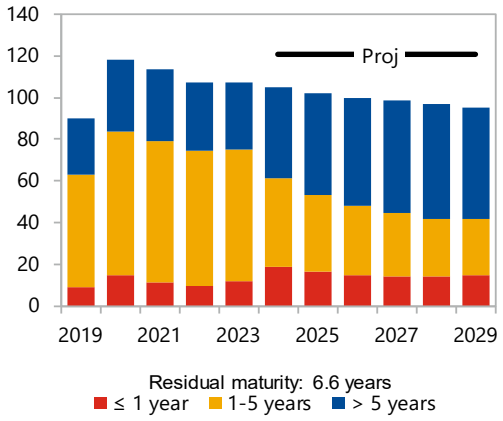
Note: The perimeter shown is general government.

Debt By Instruments (Percent of GDP)



Note: The perimeter shown is general government.

Public Debt By Maturity (Percent of GDP)



Note: The perimeter shown is general government.

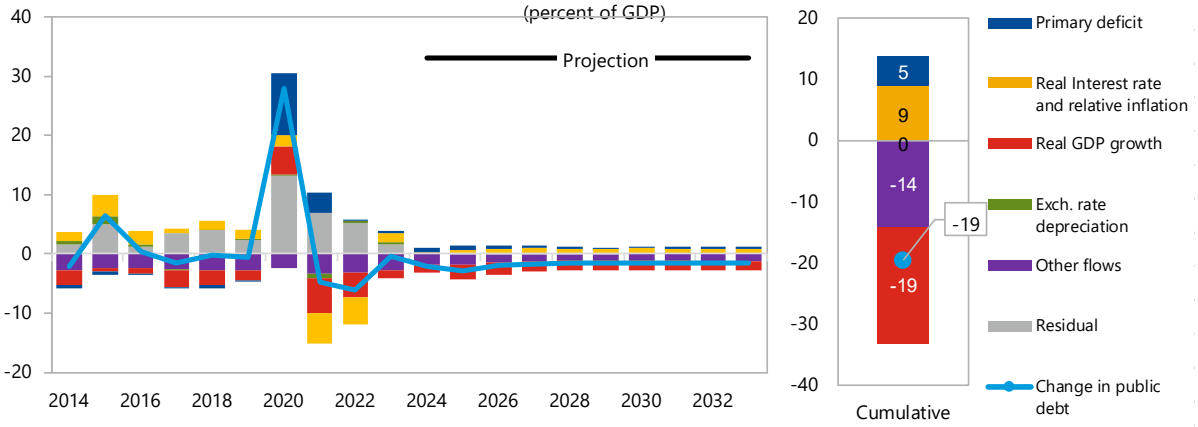
Commentary: Gross public debt includes sizable accounts payable (about 17½ percent of GDP at end-2023), and dominated by local-currency instruments. Average debt maturity is assumed to be gradually lengthened over the medium term.

Annex III. Figure 4. Baseline Scenario

(Percent of GDP unless indicated otherwise)

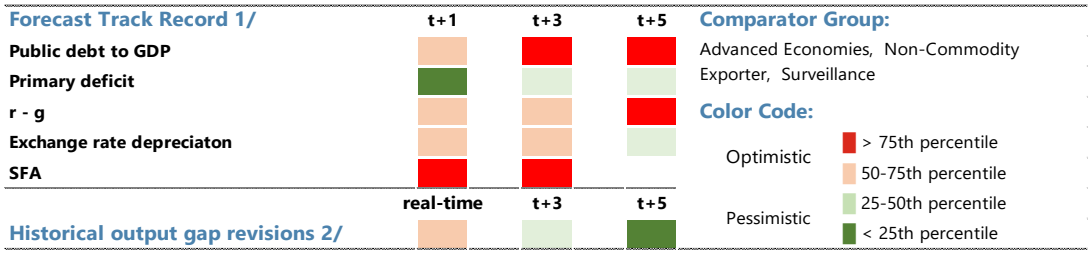
	Actual	Medium-term projection						Extended projection			
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Public debt	107.0	104.9	102.1	100.1	98.4	96.8	95.2	93.7	92.1	90.6	89.1
Change in public debt	-0.4	-2.1	-2.9	-2.0	-1.6	-1.6	-1.6	-1.5	-1.6	-1.5	-1.5
Contribution of identified flows	-1.9	-2.1	-2.8	-1.9	-1.6	-1.5	-1.5	-1.6	-1.6	-1.6	-1.6
Primary deficit	0.2	0.7	0.7	0.6	0.5	0.3	0.2	0.3	0.3	0.4	0.4
Noninterest revenues	39.1	38.5	38.5	38.5	38.7	38.8	38.9	38.9	38.9	38.9	38.9
Noninterest expenditures	39.3	39.2	39.2	39.1	39.1	39.1	39.1	39.1	39.2	39.2	39.3
Automatic debt dynamics	0.7	-1.1	-1.8	-1.1	-0.8	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7
Real interest rate and relative inflatio	1.5	0.2	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Real interest rate	1.6	0.2	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Relative inflation	-0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Real growth rate	-1.3	-1.3	-2.5	-2.0	-1.8	-1.7	-1.6	-1.7	-1.6	-1.6	-1.6
Real exchange rate	0.5	...	...	...	...	...	...	...	...	...	...
Other identified flows	-2.8	-1.8	-1.6	-1.4	-1.2	-1.0	-1.1	-1.1	-1.2	-1.2	-1.2
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(minus) Interest Revenues	-2.8	-2.8	-2.8	-2.6	-2.5	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4
Other transactions	0.0	1.0	1.1	1.2	1.3	1.4	1.4	1.3	1.3	1.2	1.2
Contribution of residual	1.6	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	0.0	0.0	0.0
Gross financing needs	16.2	20.1	22.1	21.4	20.7	20.7	21.0	22.4	22.3	22.0	21.3
of which: debt service	18.9	22.1	24.2	23.4	22.7	22.9	23.2	24.6	24.4	24.0	23.3
Local currency	n.a.	21.0	23.0	22.6	22.1	22.3	22.6	23.8	23.7	23.5	22.9
Foreign currency	n.a.	1.2	1.1	0.8	0.6	0.6	0.6	0.7	0.6	0.6	0.5
Memo:											
Real GDP growth (percent)	1.2	1.3	2.4	2.0	1.8	1.8	1.6	1.8	1.8	1.8	1.8
Inflation (GDP deflator; percent)	1.5	3.0	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Nominal GDP growth (percent)	2.8	4.3	4.9	4.2	3.9	3.8	3.7	3.8	3.8	3.8	3.8
Effective interest rate (percent)	3.1	3.2	3.0	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.0

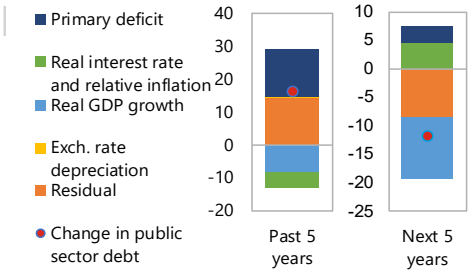
Contribution To Change In Public Debt

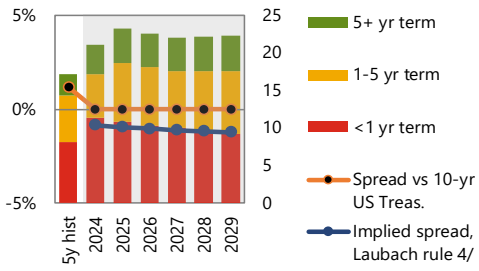


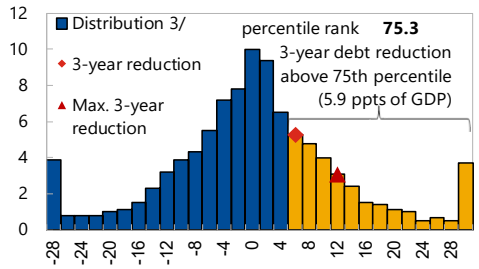
Commentary: Taking into account the large holdings of financial assets, which also includes equity and investment fund shares, the net debt-to-GDP ratio stood at 12.8 percent of GDP at end-2023, and is projected to rise in 2024 before falling again over the medium term. The decline in debt-to-GDP ratio is largley driven by real GDP growth and interest revenue.

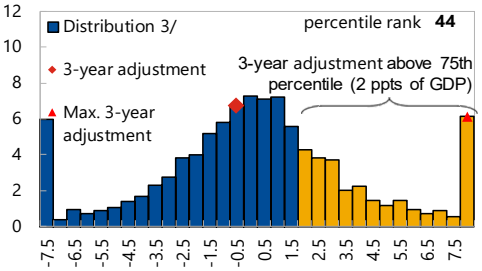
Annex III. Figure 5. Realism of Baseline Assumptions

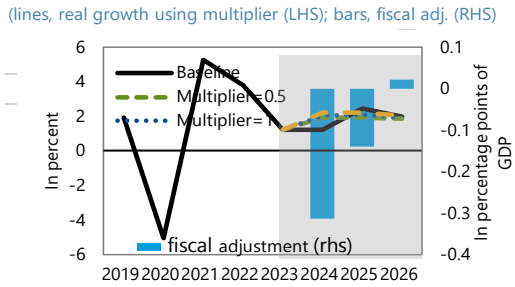


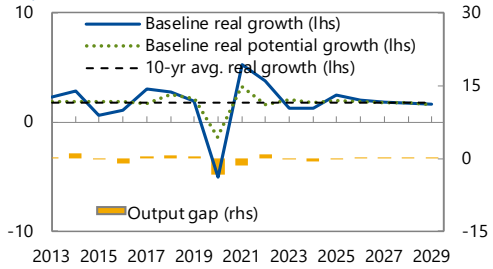












Commentary: The recovery from COVID-19 imparted complicated effects on the growth path. However, realism analysis does not point to major concerns: past forecast errors were moderate and broadly in line with those in other economies. The projected deficit reduction is close to the median of the distribution, whereas the slightly ambitious debt reduction reflects largely the withdrawal of sizable COVID-19 fiscal support. The large contribution of the residual to debt accumulation in the past five years was driven mostly by unprecedented liquidity support measures implemented in 2020, such as funding for emergency loans, tax deferral, and purchase of assets, notably mortgages. These loans and deferrals are expected to be paid off in the next few years, resulting in large negative contribution of the residual to debt accumulation.

Source : IMF Staff.

1/ Projections made in the October and April WEO vintage.

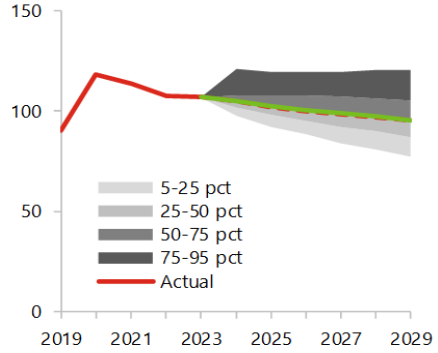
2/ Calculated as the percentile rank of the country's output gap revisions (defined as the difference between real time/period ahead estimates and final estimates in the latest October WEO) in the total distribution of revisions across the data sample.

3/ Data cover annual obervations from 1990 to 2019 for MAC advanced and emerging economies. Percent of sample on vertical axis.

4/ The Laubach (2009) rule is a linear rule assuming bond spreads increase by about 4 bps in response to a 1 ppt increase in the projected debt-to-GDP ratio.

Annex III. Figure 6. Medium-Term Risk Analysis

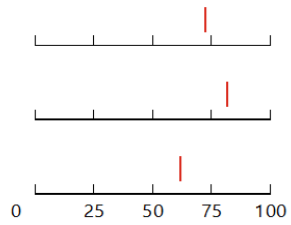
Final Fanchart (Pct of GDP)



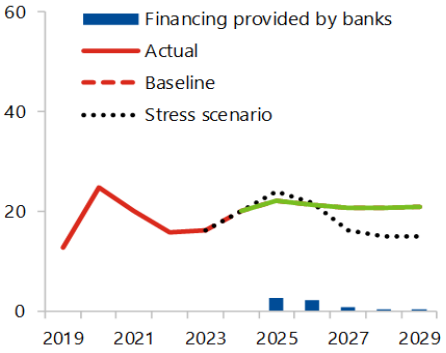
Debt fanchart module

	Value	Contrib [1/]
Fanchart width *(percent of GDP)*	43.2	0.6
Probability of debt non-stabilizaiton *(percent)*	38.6	0.3
Terminal debt-to-GDP x institutions index	16.1	0.3
Debt fanchart index (DFI)		1.3
Risk signal: [3/]		**Moderate**

Percentile in peer group [2/]

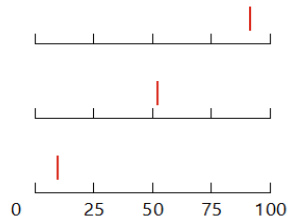


Gross Financing Needs (Pct of GDP)



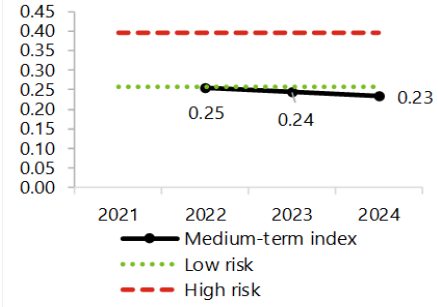
Gross financing needs (GFN) module

	Value	Contrib
Average baseline GFN *(percent of GDP)*	21.0	7.2
Banks' claims on the gen govt *(pct bank assets)*	6.1	2.0
Chg. In banks' claims in stress *(pct banks' assets)*	0.4	0.1
GFN financeability index (GFI)		9.3
Risk signal: [4/]		**Moderate**



Banking crisis | Commodity prices | Exchange rate | Contingent liab. | Natural disaster

Medium-Term Index (Index Number)



Medium-term risk analysis

	Value	Norm. Value	Weight	Contribution
Debt fanchart index	1.30	0.29	0.50	0.14
GFN finaceability index	9.28	0.18	0.50	0.09
Medium-term index		0.23		
Risk signal: 5/		**Low**		
Final assessment:		**Low**		

Prob. of missed crisis, 2024-2029, if stress not predicted: 9.1 pct.

Prob. of false alarms, 2024-2029, if stress predicted: 45.5 pct.

Commentary: Both the debt fanchart and the GFN Modules point to moderate level of risk. The overall risk, however, is mitigated by the government's large financial asset holdings. A large exchange rate shock is expected to have very limited impacts on debt and GFN given the small share of foreign-currency denominated debt.

Source: IMF staff estimates and projections.

1/ See Annex IV of IMF, 2022, Staff Guidance Note on the Sovereign Risk and Debt Sustainability Framework for details on index calculation.

2/ The comparison group is advanced economies, non-commodity exporter, surveillance.

3/ The signal is low risk if the DFI is below 1.13; high risk if the DFI is above 2.08; and otherwise, it is moderate risk.

4/ The signal is low risk if the GFI is below 7.6; high risk if the DFI is above 17.9; and otherwise, it is moderate risk.

5/ The signal is low risk if the GFI is below 0.26; high risk if the DFI is above 0.40; and otherwise, it is moderate risk.

Annex III. Figure 7. Long-Term Risk Analysis

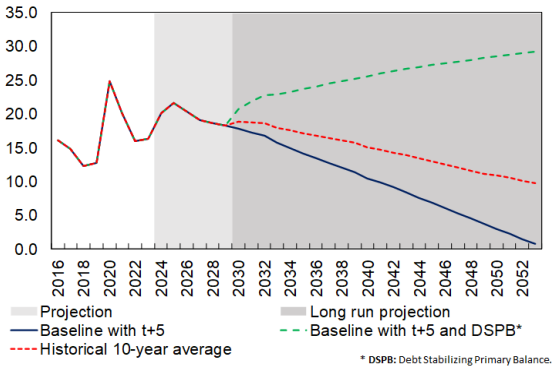
Large Amortization Trigger

Projection	Variable	Risk Indication
Medium-term extrapolation	GFN-to-GDP ratio Amortization-to-GDP ratio Amortization	
Medium-term extrapolation with debt stabilizing primary balance	GFN-to-GDP ratio Amortization-to-GDP ratio Amortization	
Historical average assumptions	GFN-to-GDP ratio Amortization-to-GDP ratio Amortization	
Overall Risk Indication		

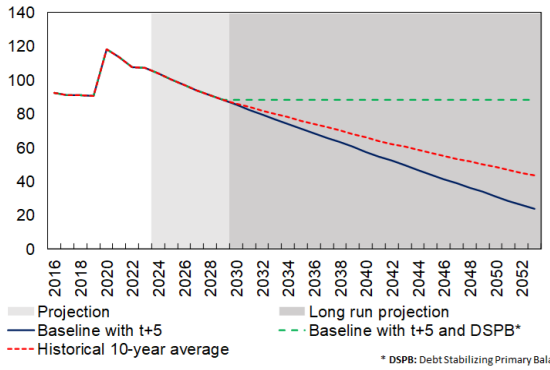
Commentary: the large amortization module is triggered given the larger-than-historical amortizations projected in the long term.

Alternative Baseline Long-term Projections

GFN-to-GDP ratio



Total public debt-to-GDP ratio



Annex IV. Risk Assessment Matrix[1]

(Scale—Low, Medium, and High)			
Source of Risks	**Relative Likelihood**	**Impact**	**Policy Response**
Globally-Sourced Risks			
Abrupt global slowdown. Global and idiosyncratic risk factors cause a synchronized sharp growth downturn, with recessions in some countries and adverse spillovers through trade and financial channels, and market fragmentation triggering sudden stops in EMDEs.	**Medium**	**High** Slower growth among trading partners dampens the external demand for Canadian exports. Negative financial spillovers and weaker consumer confidence exert downward pressure on domestic activity.	Both monetary and fiscal policy would need to respond to a global recession. The strength of the reaction would depend on developments in inflation and commodity prices.
Intensification of regional conflicts. Escalation or spread of the conflict in Gaza and Israel, Russia's war in Ukraine, and/or other regional conflicts or terrorism disrupt trade (e.g., energy, food, tourism, supply chains), remittances, FDI and financial flows, and payment systems, and increase refugee flows.	**High**	**Medium** Trade and financial disruptions and commodity price volatility weigh on growth, increase risks of financial instability, and add to inflationary pressures.	As a major commodity producer, Canada has been hit less hard than others by the war in Ukraine. Policies should focus on further increasing the resilience of the economy to conflicts and to trade disruptions in the affected regions.
Deepening geoeconomic fragmentation. Broader conflicts, inward-oriented policies, and weakened international cooperation result in a less efficient configuration of trade and FDI, supply disruptions, protectionism, policy uncertainty, technological and payments systems fragmentation, rising shipping and input costs, financial instability, a fracturing of international monetary system, and lower growth.	**High**	**Medium** Trading partners reduce demand for Canadian exports. Domestic producers constrain supply chains and production networks, increasing inflationary pressures. Investment distortions associated with trade protectionism reduce potential growth.	Work actively to strengthen the rules-based multilateral trading system, pursue international economic cooperation, and promote cooperative approaches to climate change mitigation.
Commodity price volatility. A succession of supply disruptions (e.g., due to conflicts, export restrictions, and OPEC+ decisions) and demand	**High**	**High** For Canada as a major commodity exporter, volatile commodity prices not only directly affect growth, but also affect the government's use of commodity-	Continue to increase competitiveness and strengthen the policy framework to manage Canada' exposure to commodity price volatility. Continue structural adjustment to address the

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path. The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline "low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. The conjunctural shocks and scenarios highlight risks that may materialize over a shorter horizon (between 12 to 18 months) given the current baseline. Structural risks are those that are likely to remain salient over a longer horizon.

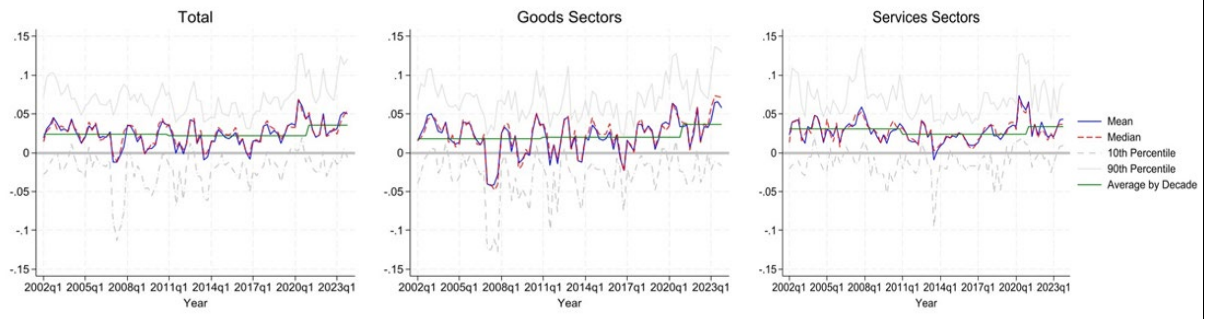
(Scale—Low, Medium, and High)			
Source of Risks	**Relative Likelihood**	**Impact**	**Policy Response**
Globally-Sourced Risks			
fluctuations causes recurrent commodity price volatility, external and fiscal pressures in EMDEs, cross-border spillovers, and social and economic instability.	**High**	related revenues, such as royalties and income tax.	problem of lagging productivity growth.
Monetary policy miscalibration. Amid high economic uncertainty, major central banks loosen policy stance prematurely, hindering disinflation, or keep it tight for longer than warranted, causing abrupt adjustments in financial markets and weakening the credibility of central banks.	**Medium**	**High** Loosening monetary policy prematurely leads to persistent inflation, sustained mismatch in supply and demand, and a de-anchoring of inflation expectations. Keeping monetary policy tight for too long weakens market confidences and lowers demand.	The BoC should remain data-dependent and continue communicating a strong commitment to the inflation target.
Cyberthreats. Cyberattacks on physical or digital infrastructure and service providers (including digital currency and crypto assets) or misuse of AI technologies triggers financial and economic instability.	**Medium**	**High** Disruption is widespread, given the strong reliance of Canada's public sector, financial sector, and businesses on cybernetworks and digital infrastructure.	Strengthen defenses (in the financial sector and elsewhere in the economy) to prevent cyberattacks and take steps to build resilience to ensure continuity of operations when attacks occur.
Disorderly energy transition. A disorderly shift to net-zero emissions (e.g., owing to shortages in critical metals) and climate policy uncertainty lead to supply disruptions, stranded assets, market volatility, and subdued investment and growth.	**Medium**	**Medium** Uncertainty surrounding climate policy and a resulting disorderly energy transition impede corporate investment, diminish potential growth, and heighten market volatility.	Canada should remain committed to its climate-change mitigation policies, while avoiding further policy exemptions, to achieve its 2030 emissions objective. Canada may also need to move away faster from its fossil fuel exports on account of climate mitigation policies implemented by other countries.
Domestically-Sourced Risks			
House price correction. A significant decrease or correction in housing prices across the real estate market, triggered possibly by elevated interest rates, a slowing economy, and reduced demand.	**Medium**	**Medium** High mortgage rates will weigh on house prices. Prices have already started coming down, and further declines are likely. Some households will see their mortgage payments increase. House price corrections could, via a wealth effect, imply weaker household consumption, and if unemployment also were to rise materially, delinquencies on household loans could increase, resulting in credit losses and reduced capital for banks.	On account of prudent mortgage underwriting and the nature of prevailing mortgage products, the financial sector should remain resilient in the baseline, but households and lenders may face strains if monetary easing is delayed. Policies should focus on macro-prudential measures to address housing market imbalances.
Political uncertainty. Impact of upcoming elections, with a possible change in the government.	**Medium**	**Medium** A change in the political landscape could affect the continuity of policies on the fiscal consolidation path, climate change mitigation (especially the carbon tax), and many other areas, thus affecting market sentiment and business confidence.	Enhance the transparency of policy communication, to reduce policy uncertainty and build trust.

Annex V. Passthrough of Wage Growth to Price Inflation[1]

Inflation is coming down sharply in Canada, but wage growth and shelter inflation remain high. To what extent will these factors complicate the last mile of disinflation? This annex tries to answer this for wages by estimating the pass-through from wage growth to price inflation in Canada. It does so by examining the one-directional impulse responses of final goods/services prices to wage increases at the sector level without estimating the feedback from prices to wages.

1. Following Chin and Lin (2023), a quarterly panel of 85 output sectors covering 2001–23 was constructed by combining the consumer price index (CPI) in each output sector with the effective labor cost (wage) in the same sector.[2] The matching between wage data, which are recorded at the industry level, and CPI, defined at the sector level, is conducted using the Input and Output correspondence tables provided by Statistics Canada. Impulse responses are estimated using local projection methods, with controls including sectoral labor productivity growth, non-wage input price changes (goods sector only), changes in average hours worked by sector, as well as sector and time fixed effects.[3] Regressions are weighted by a sector's share in the total consumer expenditure.

Canada: Growth of Average weekly Earnings Across Sectors
(Year-over-year change, percent)



Source: Statistics Canada: Survey of Employment, Payrolls and Hours and IMF staff calculations.

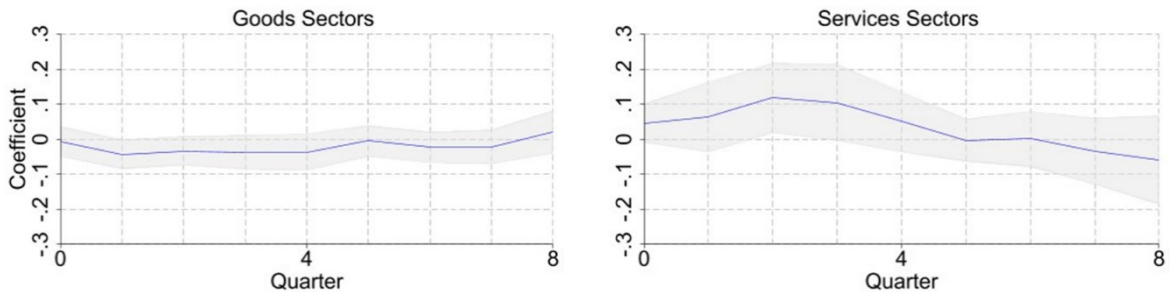
Sectoral data analysis suggests that variation of wage growth at the sector level has been stronger than that at the aggregate level, which saw stable growth over the past two decades, in line with low and steady CPI inflation. As inflation surged in the past two years, average wage growth accelerated across sectors.

[1] Prepared by Chiara Ferrero, Lucy Q. Liu and Ignacio Gallardo.

[2] Chin, M., & Lin, L. (2023). The Pass-through of Wages to Consumer Prices in the COVID-19 Pandemic: Evidence from Sectoral Data in the US. IMF Working Paper 23/233 (Washington: International Monetary Fund).

[3] The final regression sample covers Q1:2010–Q4:2023, given limited data availability of control variables. Non-wage input price data is only available for goods sectors.

Canada: Impulse Responses of Changes in CPI from 1 Percent Increase in Wage Growth
(Percent)



2. Impulse responses of changes in CPI to wage growth show that passthrough from wages to prices is generally statistically indistinguishable from zero in the goods sector, while in the service sector it peaks in the second quarter at around 12 percent. These results are broadly in line with the US evidence documented in Chin and Lin (2023) who, in the baseline, also find no significant passthrough in the goods sector. However, in the case of the US, they find significant pass-through for services peaking in the third quarter at 27.9 percent. The cross-sectoral differences likely reflect the higher labor intensity in service sectors, which makes output prices more sensitive to changes in the cost of labor.

3. Heise et al (2022) also show evidence of a decrease in passthrough in the US, finding that at an aggregate level, wage passthrough to inflation was indistinguishable from zero between 2000 and 2020.[4] They posit that rising import competition and increasing market concentration may have played a role in this decrease in the United States. In the case of Canada, prices could also be affected by changes in the exchange rate (in particular, with respect to the US dollar), which may also have an indirect effect on wages. Moreover, while wages are more slow-moving than inflation, there is potential endogeneity, as current inflation could also feed into wage growth. Therefore, our estimates cannot necessarily be interpreted causally. Our results so far, however, suggest that the wage-to-price channel is not substantial.[5]

4. In order to test how this relationship has changed over time, we use rolling window estimations of impulse responses and find that passthrough in the goods sector decreased in the years prior to the COVID-19 pandemic but rebounded in the last two years when wage growth was higher. The coefficient estimates remained close to zero, however, only reaching a passthrough of around 5 percent in 2023. Passthrough in the service sector was relatively stable, with a decrease between 2019 and 2021 and a rebound mostly in 2022 and 2023. These findings contrast with those of Chin and Lin (2023), who observed increased passthrough during the pandemic recovery in the US for both goods and service sectors.

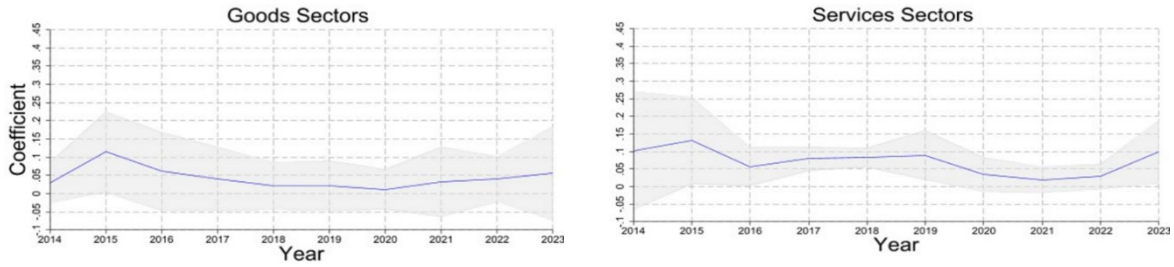
[4] See Heise, Sebastian, Fatih Karahan, and Ayşegül Şahin. "The Missing Inflation Puzzle: The Role of the Wage-Price Pass-Through." Journal of Money, Credit and Banking 54.S1 (2022): 7–51.

[5] See Exchange Rate Pass-Through to Consumer Prices: Theory and Recent Evidence (publications.gc.ca)

In sum, wage passthrough to prices is stronger in the services sector than in the goods sector but still relatively low, and this analysis suggests that high wage growth is not likely to be a major risk factor for Canada's remaining stretch of disinflation.

Canada: Five-year Rolling Window Impulse Responses of Changes in CPI from 1 Percent Increase in Wage Growth

(Percent)



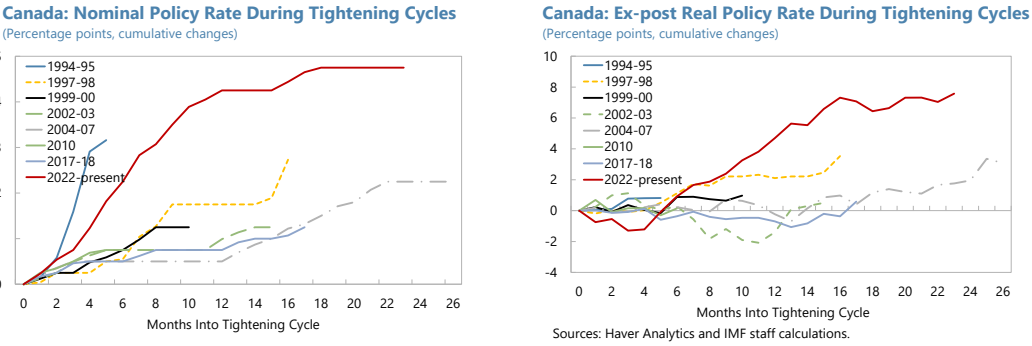
Note: showing the largest pass-through over a 2 year-horizon.

Annex VI. Monetary Policy Transmission in the Post-pandemic Tightening Cycle[1]

This annex assesses the effectiveness of monetary policy transmission in Canada and how transmission in the latest tightening cycle differs from historical cycles. Simulations based on a structural model indicate that increased household savings and net worth have counteracted the impact of the shift toward variable-rate mortgages and higher household indebtedness, likely leaving monetary policy transmission weaker. This may have helped the economy achieve a soft landing despite the very substantial monetary tightening seen since March 2022.

A. Stylized Facts

1. The Bank of Canada has undertaken substantial monetary tightening since March 2022, in response to post-pandemic inflation. The speed and scale of the rate hikes are unprecedented. In real terms, however, the tightening is relatively more backloaded than in previous cycles, with the ex post real policy rate staying negative for five months after the beginning of rate increases.



As discussed in the 2023 Article IV Consultation, a number of developments since the pandemic—including an increase in household savings, a shift toward variable mortgages, wealth gains from surging house prices, the synchronized nature of the current global tightening cycle, a somewhat looser fiscal stance, and a potential increase in firms' market power—make it unclear whether rate hikes will be more or less effective than in the past.

B. A Structural Model with Heterogeneous Agents

2. To identify potential channels whereby monetary policy transmission might have changed, we estimate a Heterogeneous Agent New Keynesian (HANK) model for the period 2000–23. HANK models are useful for examining how differences in income and asset distribution across agents affect household consumption responses to interest rates changes. The model's rich

[1] Prepared by Ignacio Gallardo, Lucy Q. Liu, and Sandra Valentina Lizarazo Ruiz.

heterogeneity allows us to take into account the relative importance of different households' responses to monetary policy shocks. For instance, an unexpected interest rate increase impacts borrowers differently from savers. Households that are neither (i.e., without much access to financing) are affected only indirectly, through changes in labor income as firms reduce labor demand on account of lower demand for goods and services.

3. The model pays particular attention to housing assets and liabilities. Earlier staff analysis (Box 3 in the 2023 Article IV Consultation) suggested that rising household leverage and the shift toward variable and shorter-tenor fixed rate mortgages could have resulted in strengthened transmission of monetary policy. As a first approach to look into the role of these factors, the model distinguishes two types of assets—low-return liquid assets, and high-return illiquid assets subject to transaction costs. Illiquid asset holdings include housing assets and liabilities. We use data from National Balance Sheet Accounts to make these classifications.

4. Households' responses to shocks and their perception of risks in the economy also affect their demand decisions following monetary policy changes. The introduction of idiosyncratic risks in HANK models allows us to capture the importance of perceived uncertainty on monetary policy transmission. We characterize households' earning process using the estimates from Karibzhanov (2018), which show that Canadian households, like those in the United States, face infrequent but large earning shocks.

5. To assess potential changes in monetary policy transmission after the pandemic, we compare model-generated impulse response functions for the full period of analysis (2000–23) with those considering changes observed in recent years (2019–23). Changes include variations in net asset holdings, firms' market power, and fiscal policy responses to monetary policy, involving less adjustment in expenses and transfers in response to increased government interest expenses due to higher rates.

6. Model results suggest that the effects on transmission of rising leverage and an increasing share of shorter-duration mortgages were offset by higher household net worth. Alongside a sharp rise in mortgage debt (from an average of 69 percent of GDP during 2000–23 to 88 percent during 2019–23) and the share of variable rate residential mortgages (about 8 percentage points higher—30 versus 22 percent), the net worth of the private sector also increased significantly. In particular, the average net worth of households and firms is about 25 percent higher, with net housing assets increasing by more than 40 percent of GDP. As

Canada: Summary of Taxonomy of Assets as share of GDP

Liquid	2000-2023	2019-2023	Illiquid	2000-2023	2019-2023
Revolving Consumer Debt	-7.52	-4.40	Net housing	156.56	224.45
Deposits	28.81	44.77	Net durables	30.14	31.31
Corporate Bonds	-3.27	10.52	Corporate equity	80.31	71.06
Government Bonds	8.56	8.31	Private equity	107.78	121.38
Total	26.58	59.20	**Total**	374.80	448.19
			Grand Total	401.38	507.39

Source: Statistics Canada National Balance Sheets Accounts

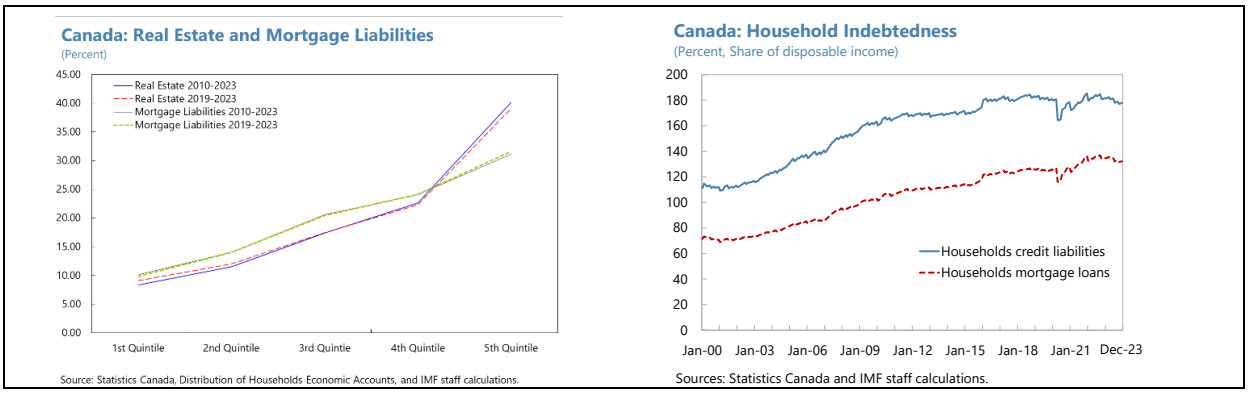
discussed before, for saving households, changes in interest rates have a positive income impact, plus since households with high net worth have a relatively small marginal propensity to consume, reductions in disposable income resulting from higher rates are less of an issue in terms of demand compression. Furthermore, high net worth households can maintain high levels of consumption by shifting their portfolios as needed.

7. The results of the model provide some evidence that monetary policy transmission may have become weaker. Despite higher average net worth for 2019–23, rising policy rates could have depressed consumption among vulnerable homeowners with adjustable-rate mortgages who cannot borrow easily (the cash flow channel of monetary policy transmission). However, for this channel to be more prominent than in the past, vulnerable households would need to hold a larger share of mortgage liabilities. As shown in Figure A6.1, the distribution of housing assets and liabilities has not changed significantly across the two periods. Thus, the strength of the cash flow channel has likely not increased recently.

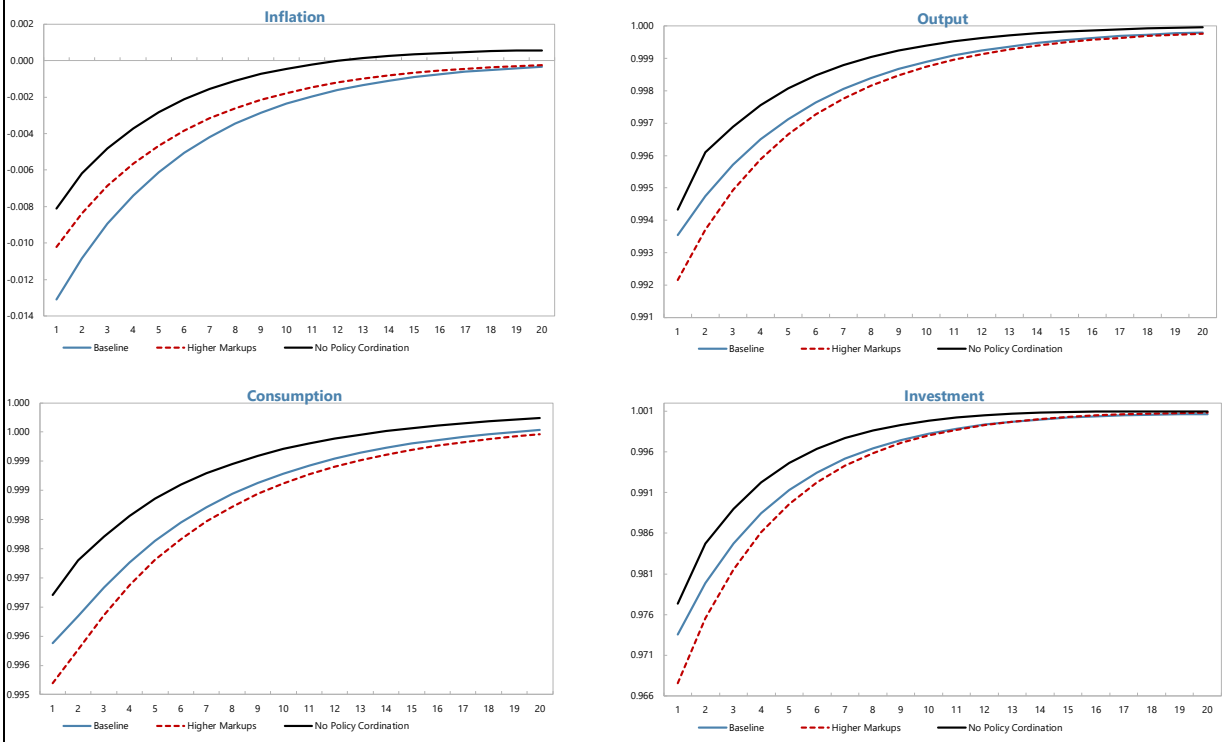
8. Renters' rising share in the population is another reason why higher levels of variable-rate mortgage debt might not strengthen monetary policy transmission. These households are not directly affected by mortgage rate changes. Their aggregate demand is indirectly impacted through changes on firms' wages, which are not directly influenced by mortgage related debt.

9. The model identifies two factors that might have weakened monetary policy transmission. First, a looser fiscal stance in response to higher interest rates could reduce transmission: for each 1 percentage point of GDP extra in government debt on account of higher interest costs, inflation reduction may be lower by up to 40 basis points. Second, firms' increased market power, allowing them to more effectively pass on cost increases, as noted by Bilyk, Grieder, and Khan (2023) could also reduce transmission (by about 1.8 basis points less inflation reduction for each 1 percent increase in markups).

10. The results need to be interpreted with some caution. For one, the model captures neither the impact of higher rates on the evolution of housing prices nor the impact of synchronized monetary policy tightening across advanced economies. Additionally, the model does not consider the role of housing as financing collateral. Further model extensions incorporating these elements might clarify the impact of these factors on monetary policy transmission in the recent period.



Annex VI. Figure 1. Impulse Response Functions to a Monetary Policy Shock



Source: Staff calculations.

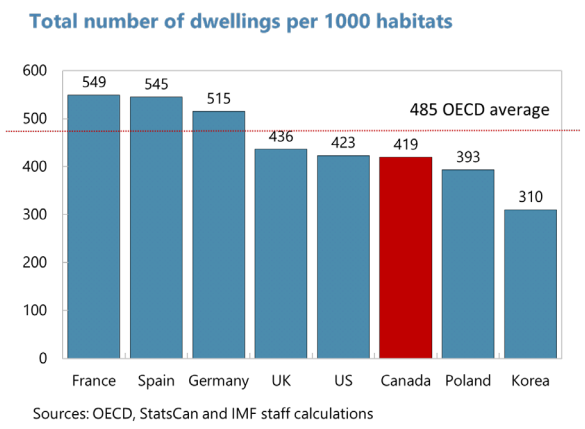
Annex VII. Canada's Housing Supply Shortage: Lessons from International Experience[1]

This annex explores housing supply shortages in Canada and identifies factors contributing to these shortages. The study also draws comparisons with global experiences and presents policy recommendations geared toward efficiently addressing the housing supply gap and alleviating the current housing affordability crisis.

A. Trends in Housing Supply in Canada

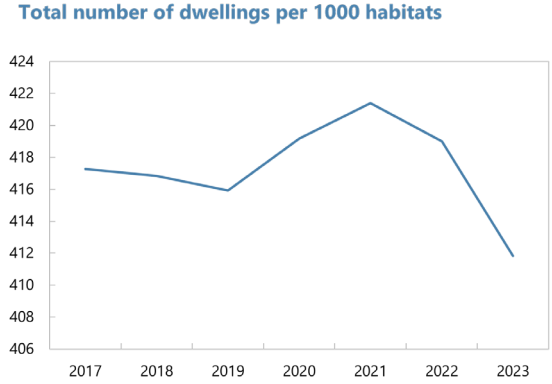
1. Canada's per capita housing stock is lower than the OECD average and has seen a sharp decline in recent years. On average, OECD countries had 485 dwellings per 1000 inhabitants, while Canada had just 419 in 2020 (Figure 1) and even less in more recent years (Figure 2).

Annex VII. Figure 1. Per Capita Housing Stock by Country



Sources: OECD, StatsCan and IMF staff calculations

Annex VII. Figure 2. Per Capita Housing Stock in Canada



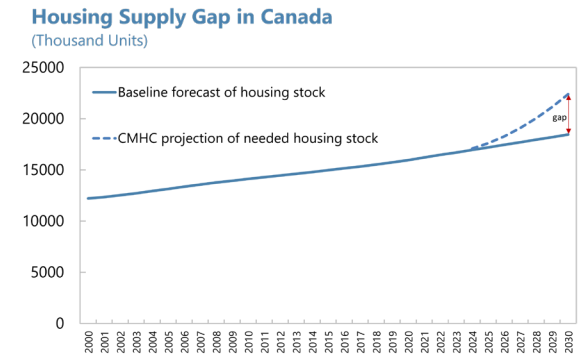
Sources: StatsCan, CEIC and IMF staff calculations

2. Housing supply in Canada has failed to keep up with demand. According to CMHC official estimates, Canada's housing gap—defined as the number of extra dwellings that would be needed to return affordability to 2004 levels—is estimated at more than 3.5 million units (Figure 3).[2] And with household formation averaging about 250,000 per year, Canada would need to build 500,000 units annually to meet this new demand and address the pre-existing housing gap even by 2040. By contrast, house completions have ranged from 150,000 to 250,000 over the past 20 years. According to the OECD affordable housing database, Canada has a particular shortage in social housing, as compared to other OECD countries (Figure 4).

[1] Prepared by Josefine Quast and Yuanchen Yang.

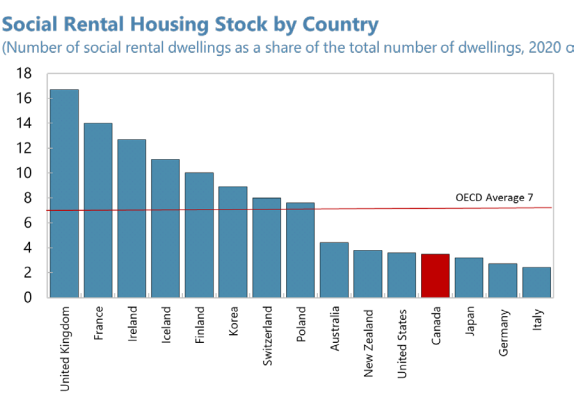
[2] According to CMHC, affordability is defined as the proportion of a household's income required to purchase a house. The report is available at Estimating how much housing we'll need by 2030 | CMHC (cmhc-schl.gc.ca).

Annex VII. Figure 3. Housing Supply Gap in Canada



Sources: StatsCan, CEIC, CMHC, and IMF staff calculations
Note: The dashed line indicates the CMHC projection of housing stock needed to restore affordability to the level seen in 2004

Annex VII. Figure 4. Social Housing Supply in Canada

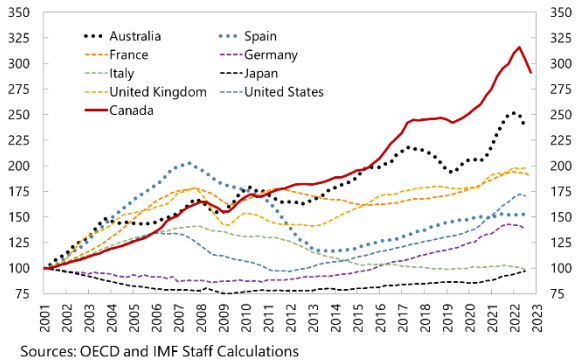


Sources: OECD

B. Consequences of Low Housing Supply in Canada

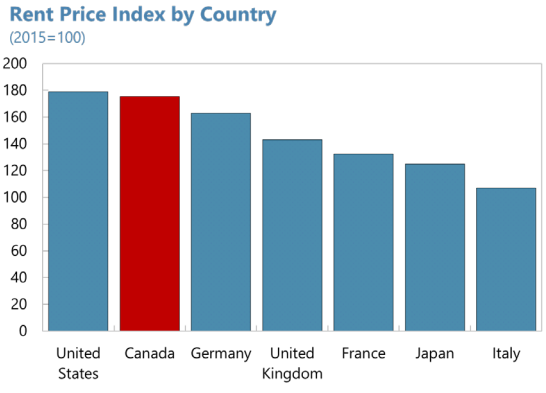
3. The gap between housing supply and demand has led to increasingly serious affordability issues. Canada's house price appreciation since 2001 is the highest among major OECD countries (Figure 5). Additionally, the country's rental price increase ranks among the highest globally, second only to the United States among G7 countries (Figure 6). These trends underscore the pressing need to address the housing affordability crisis, which continues to escalate due to the widening gap between supply and demand.

Annex VII. Figure 5. Housing Price by Country



Sources: OECD and IMF Staff Calculations

Annex VII. Figure 6. Rent Price by Country

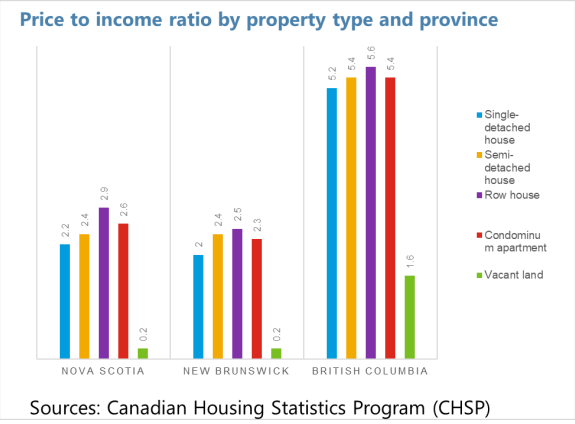


Sources: OECD

4. The affordability issue is particularly pronounced in specific provinces and among low-income households. According to survey findings from the Canadian Housing Statistics Program, the home price to income ratio is notably elevated in large provinces like British Columbia that include metropolises like Vancouver, and among immigrant households (Figures 7-8). Furthermore,

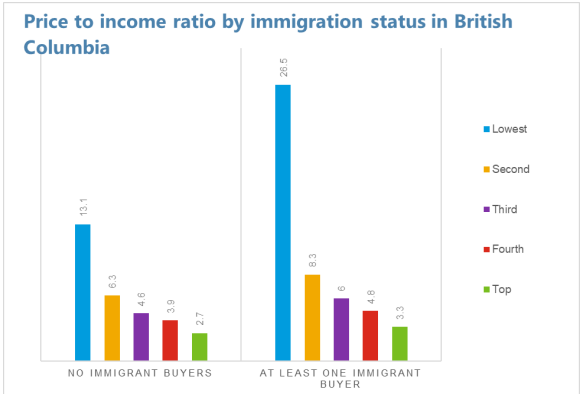
affordability, gauged by both home price to income ratio and the percentage of household income allocated to mortgage costs, is particularly strained among low-income households (Figures 9-10).

Annex VII. Figure 7. Price to Income Ratio by Property Type and Province



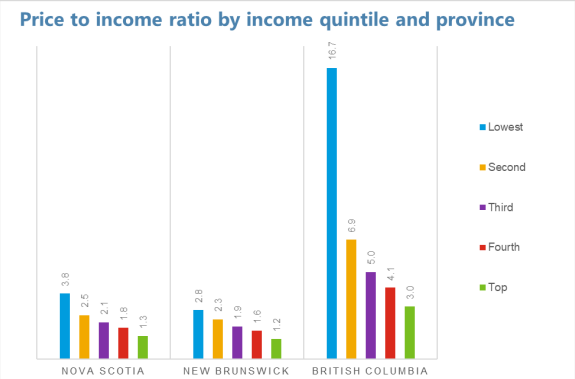
Sources: Canadian Housing Statistics Program (CHSP)

Annex VII. Figure 8. Price to Income Ratio by Immigration Status and Province



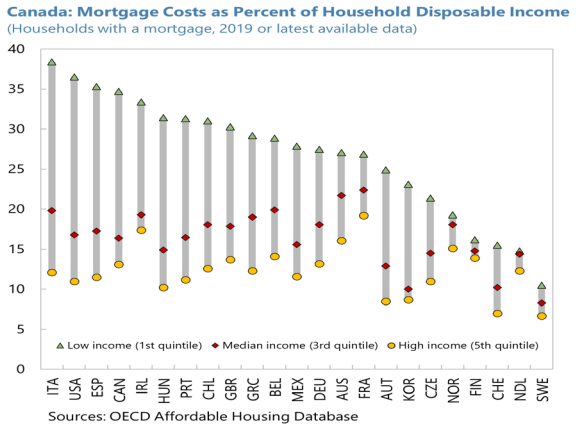
Sources: Canadian Housing Statistics Program (CHSP)

Annex VII. Figure 9. Price to Income Ratio by Income Quintile and Province



Sources: Canadian Housing Statistics Program (CHSP)

Annex VII. Figure 10. Mortgage Cost of Percent of Household Income

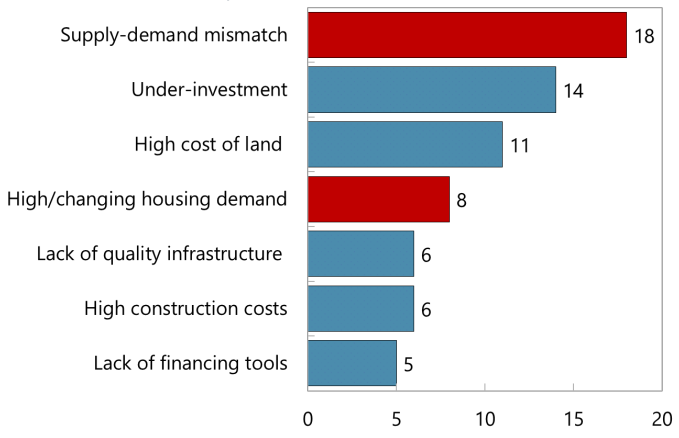


Sources: OECD Affordable Housing Database

C. Causes of Low Housing Supply in Canada

5. Drivers of a country's housing supply gap, according to national authorities, include under-investment, high land costs, a lack of infrastructure, and high construction costs. Figure 11 illustrates the supply-side bottlenecks reported by OECD countries, with the red color highlighting challenges faced by Canada, as of 2021. In Canada, a supply-demand mismatch, such as the limited supply of certain housing segments like affordable rental housing, as well as regional mismatches, are cited as major obstacles to achieving housing affordability.

Annex VII. Figure 11. Causes of Housing Supply Gap



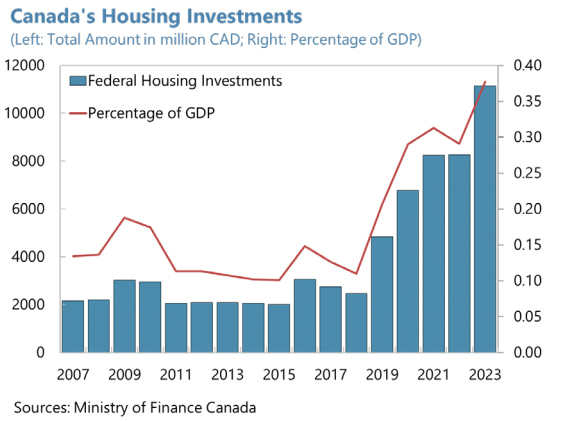
Sources: OECD

D. Cross-Country Experiences on Policies to Increase Housing Affordability

6. Countries have implemented both supply- and demand- side measures to increase housing affordability. The policy toolkit for home buyers encompasses issuing housing allowances, providing financial support for housing regeneration, offering subsidized mortgages and guarantees, implementing tax incentives, providing subsidies for home ownership, and extending mortgage relief for over-indebted households. For renters, reported policies include housing allowances, social rental housing, minimum quality standards for rental dwellings, rent controls, short-term holiday rental regulations, tax incentives, rent guarantees, and deposits (Figure 12). Canada has adopted most major policies targeted at both homebuyers and renters, with the exception of mortgage relief for over-indebted households. Canada has also banned nonresident purchases of real estate, which the IMF sees as a capital flow management measure.

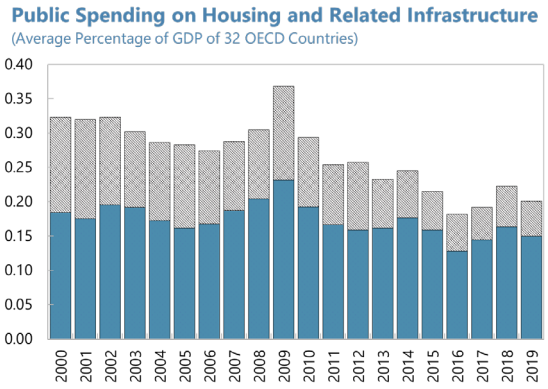
7. On the supply side, Canada has significantly bolstered its housing investment. Based on data provided by the Department of Finance, Canada, federal investment in housing development has surged from an average of Can$2.3 billion annually during the 2007–15 period to an average of Can$5.5 billion annually from 2015 to 2024 (Figures 12 and 13). This financial backing is complemented by resources such as technical assistance, tools for capacity building, initiatives to address institutional barriers, relaxation of land restrictions, and efforts to attract construction workers. The 2024 federal budget and Canada's Housing Plan lay out a broad range of measures to promote additional housing construction, including by incentivizing actions at the municipal level to unlock more supply.

Annex VII. Figure 12. Housing Investment in Canada



Sources: Ministry of Finance Canada

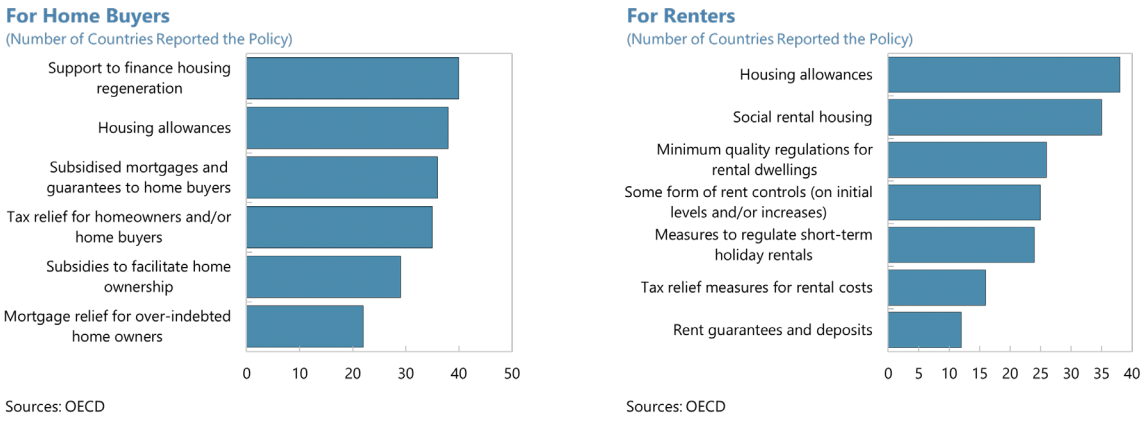
Annex VII. Figure 13. Housing Investment in OECD Countries



Sources: OECD

8. Aside from aggressive supply-side interventions, which take time to materialize, targeted finetuning of the demand side can also relieve exuberant rent and price pressures. Short-term rentals can put additional pressure on rents and house prices (see, e.g., Barron et al. (2021), Bibler et al. (2022), Calder-Wang (2021)). While short-term lets are banned in some boroughs of Montreal, Quebec and Vancouver restrict the lengths of short term stays to 31 days. Toronto allows for 180 days of hosting per year.[3] Comparing internationally, caps on hosting per year outside of Montreal are stricter in some other cities, ranging from, e.g., 31 days/year (Amsterdam), to 8 weeks/year (Munich), to 90 days/year (Vienna, London) (Figure 14 and Table 1). Bibler et al. (2022) further show that enforcing registration requirements decreased house prices in the most Airbnb-dense areas in Chicago and San Francisco by 4 percent.[4]

Annex VII. Figure 14. Overview of Housing Supply Measures Across Countries



Sources: OECD

Sources: OECD

[3] Palm Springs, San Francisco, Tokyo, and Sydney have similar caps in place as Toronto (Symons, 2023).

[4] It is worth noting, however, that some studies show that short-term rental controls can deter investment in private housing.

Annex VII. Table 1. Housing Affordability Measures by Selected Economies

Economy	Housing Affordability Measures
Australia	The objective of the National Affordable Housing Agreement (NAHA) is that all Australians have access to affordable, safe, and sustainable housing that contributes to social and economic participation. To reach that objective, the NAHA commits the Commonwealth Government jointly with the state and territory governments to the achievement of the affordability outcomes. The commonwealth is responsible for • leadership for national housing and homelessness policy including indigenous housing policy; • income support and rental subsidies; • immigration and settlement policy and programs; • financial sector regulations and Commonwealth taxation settings that influence housing affordability; • competition policy relating to housing and buildings; • provision of national infrastructure; • housing-related data collection by the Australian Bureau of Statistics and Centrelink; and • coordination of homelessness data collection from States and Territories.
Hong Kong SAR	In People's Republic of China - Hong Kong Special Administrative Region, the aim is to increase housing supply using a mixture of measures, among them, ramping up public housing production, enhancing public-private partnerships, providing public land for the development of private housing supply, and cutting red tape by streamlining statutory and administrative procedures and expediting approvals, and standardizing rates for charging land premium (The Chief Executive's 2022 Policy Address[1]).
Singapore	Singapore addresses increasing private supply mainly through its GLS Programme, which is a long-term statutory plan through which public land is released for development, guided by inclusive and sustainable development principles.[2]

[1] https://www.policyaddress.gov.hk/2022/public/pdf/policy/policy-full_en.pdf.

[2] Urban Redevelopment Authority (2024). https://www.ura.gov.sg/corporate.

Annex VII. Table 1. Housing Affordability Measures by Selected Economies (concluded)

Economy	Housing Affordability Measures
The Netherlands	The Dutch case provides an example of how a long-term strategic element can successfully contribute to approaching a country's affordable housing strategy. The Dutch strategy is centered around self-funded housing associations that manage about 75 percent of rental homes and about 35% of the total housing stock. Funds from rental revenues and proceeds from selling a fraction of the housing stock are rechanneled into maintaining the existing stock and used to add new affordable housing units (Saiz, 2023). Compared to purely budgetary efforts to address structurally lacking housing supply, one advantage is that such a scheme is less susceptible to changing budgetary priorities and trade-offs. Similar Funds are set up in other OECD countries like Austria, Denmark, Latvia, Slovakia, and Slovenia (OECD, 2023).
United Kingdom	The United Kingdom's dedicated housing ministry—Ministry of Housing, Communities & Local Government—which was created in 2008, supported the delivery of a million homes by the end of 2020, half a million more by the end of 2022, and putting the UK on track to deliver 300,000 net additional homes a year on average by the mid-2020s, to help increase affordability.

E. Policy Recommendations

9. Canada should continue its investment in housing to increase supply. Despite significant increases in housing investment in recent years, there remains a substantial deficit in housing supply in Canada that needs to be addressed urgently. Aggressive federal policies are essential. Measures such as the Housing Accelerator Fund with its conditioning of fiscal transfers on subnational efforts to expand housing are welcome and could be scaled up.

10. Effective policy coordination among different administrative levels and institutions is crucial for achieving the goals of the National Housing Strategy. While the Canada Mortgage and Housing Corporation acts as the lead agency for the National Housing Strategy, coordination is imperative due to Canada's federal structure. Establishing a housing forum that convenes all stakeholders and further ensuring clarity in strategies regarding land use and housing policies are essential for aligning objectives across all levels of governance.

11. Housing policies should support vulnerable groups. New development projects should include units that are sold below market prices (Saiz, 2023), to help alleviate the affordability challenges faced by vulnerable populations such as low-income households and youth.

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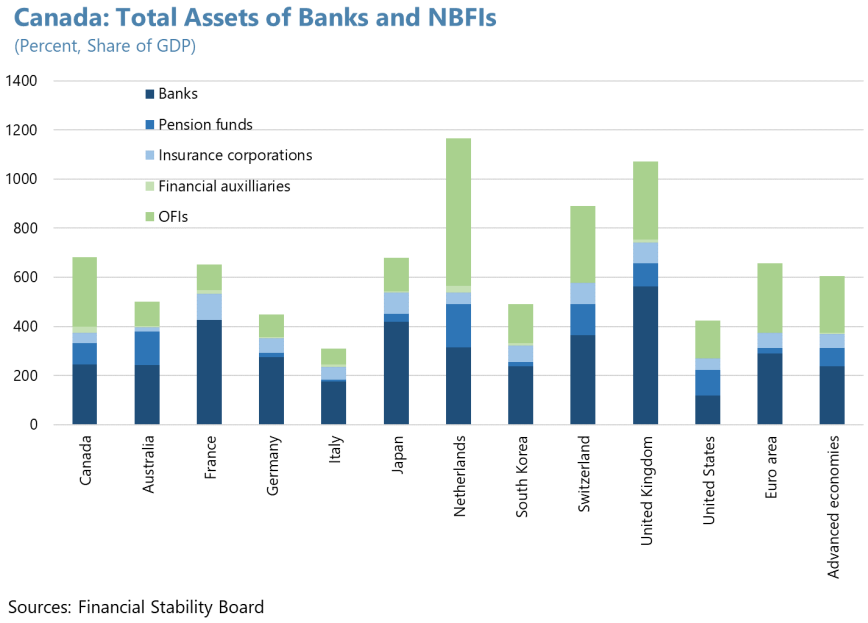
Annex VIII. Bank-NBFI Linkages[1]

This annex discusses the evolution of banks and non-bank financial intermediaries and explores their linkages through the information content of stock prices.

1. Canada has one of the largest and most developed financial systems in the world. As of end-2022, total assets of banks and non-bank financial institutions (NBFIs)[2] reached $14 trillion or 681 percent of GDP, one of the largest financial-sector footprints in the world (Figure 1). Stock market capitalization amounted to $2.7 trillion at end-2022, equivalent to 127 percent of GDP. In comparison with other advanced economies, the subsectors of pension funds and other financial institutions (OFIs)[3] in Canada stand out as particularly relevant.

Annex VIII. Figure 1. Banks and NBFIs: Total Assets/GDP

Canada's financial system is relatively large, in the international comparison, and NBFIs play an important role



Sources: Financial Stability Board

2. Unlike in other large and financially developed countries, the market shares of different subsectors have not changed significantly through time (Figure 2). In the past two decades, other advanced economies have experienced a slow but continuous decline in the market share of banks (from 48 to 39 percent between 2002 and 2022), compensated by an expansion of OFIs (from almost 26 to 38 percent in the same period). In Canada the NBFI sector has also

[1] Prepared by Pierpaolo Grippa.

[2] This annex follows the nomenclature introduced by the Financial Stability Board (FSB) for NBFIs. In particular, NBFIs are defined as all those financial institutions that are not central banks, banks, or public financial institutions. They are broken down into pension funds, insurance corporations, financial auxiliaries, and other financial intermediaries (OFIs). See FSB, Global monitoring report on non-bank financial intermediation 2023.

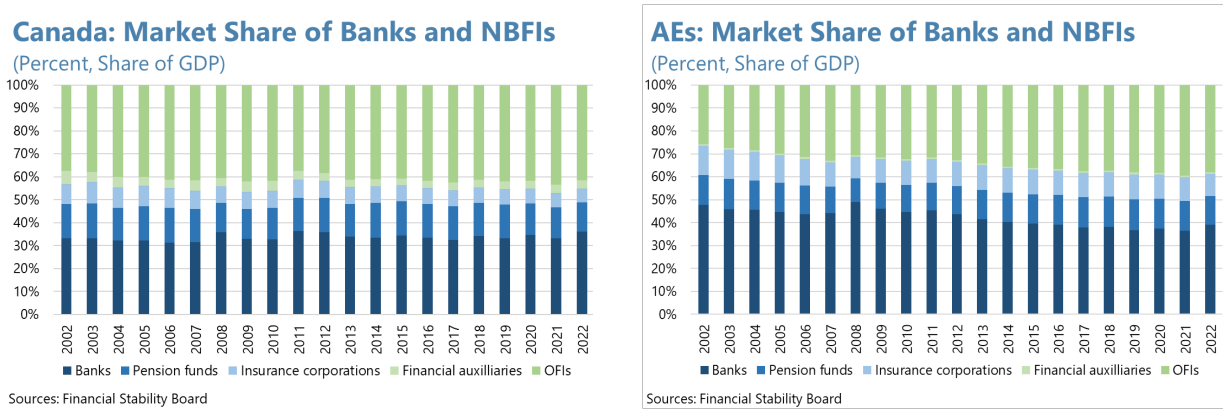
[3] According to the FSB definition, OFIs include money market funds, hedge funds, other investment funds, captive financial institutions and money lenders, central counterparties, broker-dealers, finance companies, trust companies, and structured finance vehicles.

expanded in the last twenty years, but largely in parallel with banks' growth: the market share of Canadian banks was slightly larger in 2022 than 2002 (36 vs 33 percent); and OFIs, while expanding, did so at a more moderate pace (from 37 to 42 percent in the past twenty years).

Annex VIII. Figure 2. Banks and NBFIs: Market Shares

The market share of banks in the financial system has not changed considerably for Canada in the past 20 years …

… unlike for other advanced economies

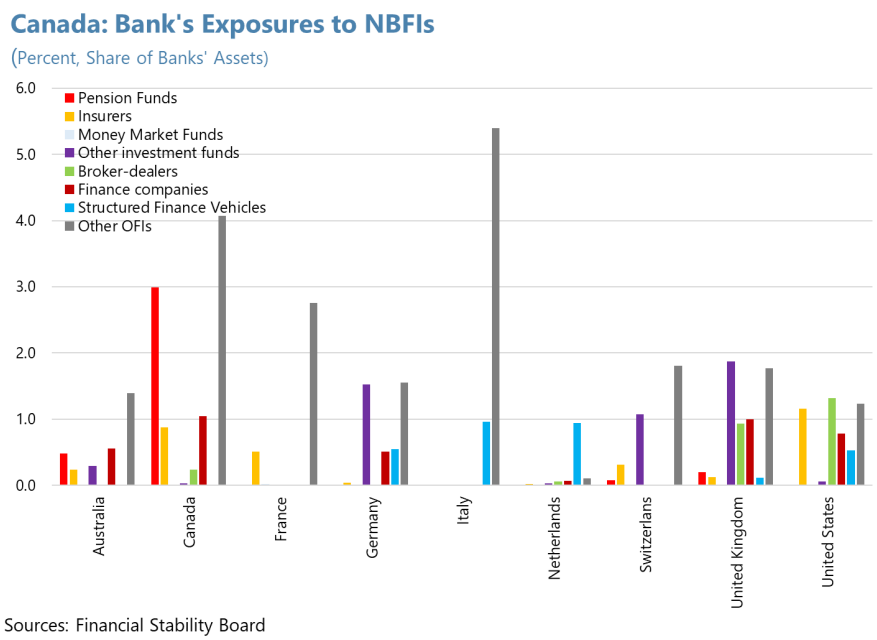


3. Banks and NBFIs have generally become more interconnected since the global financial crisis. This is, at least in part, a result of the tightening of banking regulation, not matched by an analogous tightening for NBFIs (many of which remain subject to considerably lighter rules or are completely outside the regulatory perimeter). As a result, some NBFIs have complemented banks, for example, in the provision of credit to client segments that became less profitable as a consequence of higher capital requirements or other regulatory constraints. Quite often banks remain involved anyway by providing short-term funding to NBFIs that expand into these new business areas. In the case of Canada, banks' exposure to pension funds and 'other OFIs'[4] (which include hedge funds) stands out as material in international comparison: at 3 and 4 percent of banks' assets, respectively, it represents the largest bank exposure to NBFIs across advanced economies (Figure 3).

[4] Defined as hedge funds, captive financial institutions and money lenders, central counterparties, and trust companies.

Annex VIII. Figure 3. Banks' Exposures to NBFIs

Banks' exposure to NBFIs is the largest across advanced economies



Sources: Financial Stability Board

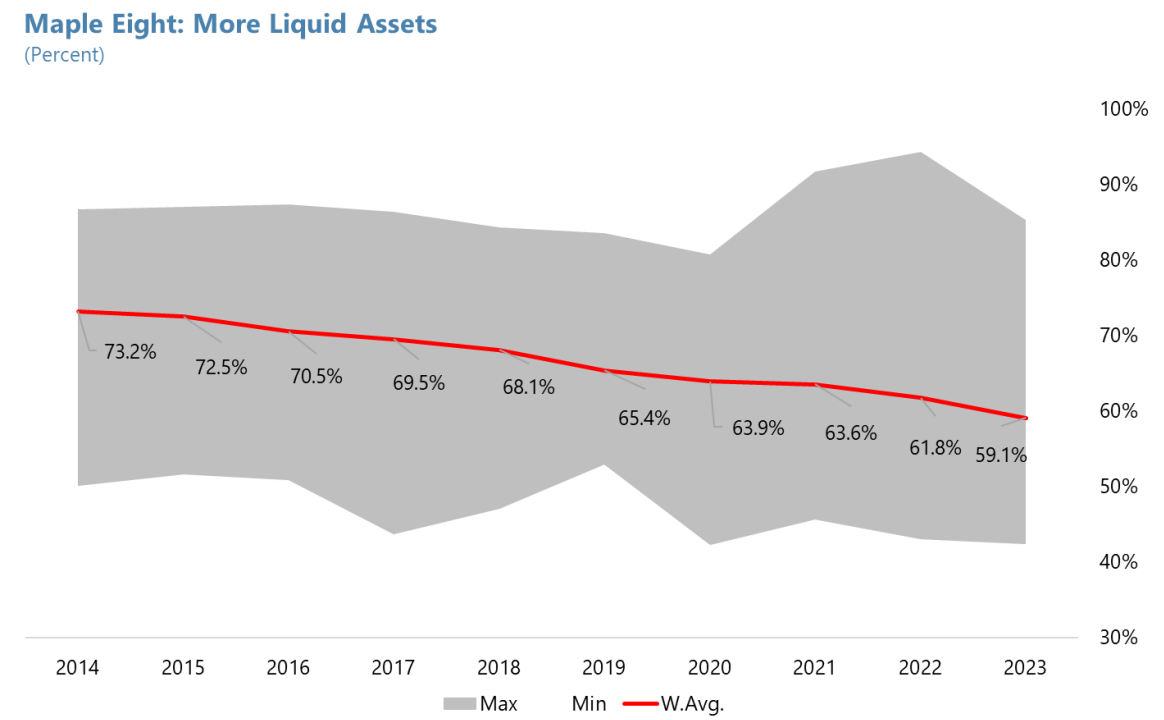
4. The particular asset mix of certain institutional investors (like pension funds and insurers) can represent a source of instability. As highlighted by the FSAP assessment of the Canadian financial system back in 2019,[5] pension funds had increased their exposure to illiquid asset classes such as private equity and have continued to expand in that direction in recent years (Figure 4). In episodes of elevated and persistent volatility, such a strategy, coupled with an intense recourse to repo financing and derivative hedging, could expose some institutions to liquidity squeezes driven by margin calls and spiking liquidity demand. Given the size of some of these players and their potential connections with banks, the impact on the financial system could be destabilizing. Some NBFIs, like hedge funds, also rely on significant leverage, for example to make certain arbitraging strategies profitable, like the cash-futures basis trade on Canadian government bonds, as pointed out by the Bank of Canada.[6]

[5] https://www.imf.org/en/Publications/CR/Issues/2019/06/24/Canada-Financial-System-Stability-Assessment-47024.

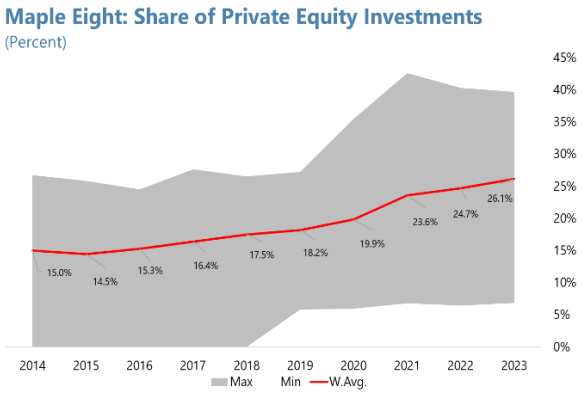
[6] Bank of Canada, Financial Stability Report—2024.

Annex VIII. Figure 4. Maple Eight: Share of More Liquid Assets, Private Equity, Real Estate 1/ 2/

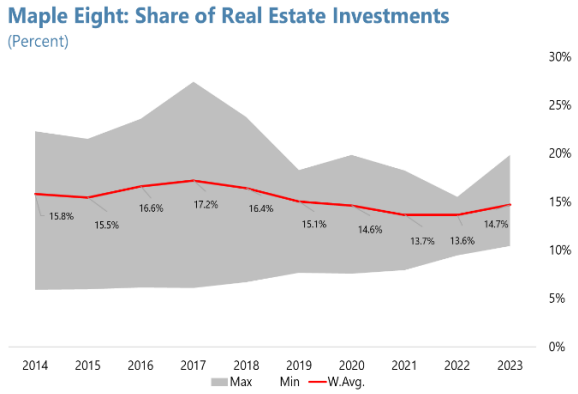
The share of more liquid asset has constantly decreased in the past ten years, on average, for the largest pension funds …



… while investments in private equity have increased …



…and those in real estate have hovered around 15 percent.



1/ 'Maple Eight' is how the eight largest Canadian public pension funds are usually referred to; they are Canada Pension Plan Investment Board (CPPIB) , Public Sector Pension Investment Board (PSPIB) , Caisse de depot et placement du Quebec (CDPQ) , Alberta Investment Management Corporation (AIMCO) , British Columbia Investment Management Corporation (BCIM) , Ontario Teachers' Pension Plan (OTTP) , Healthcare of Ontario Pension Plan (HOPP) , Ontario Municipal Employees Retirement System (OMERS).

2/ 'More Liquid Assets': Cash and Cash Equivalents, Receivables, Equity Investments, Fixed Income Investments.

5. Persistent data gaps regarding NBFIs and their links with banks hinder a more detailed analysis of the potential risks that may be building up. Notwithstanding a wide range of regulatory initiatives in place to bridge these data gaps, the availability of relevant data for system-

wide liquidity analysis remains limited in most jurisdictions; in Canada it is further complicated by the fragmentation of competencies and roles across federal and provincial agencies, only partially compensated by existing coordination mechanisms. In order to understand whether the reciprocal influence between banks and NBFIs has changed – beyond what changes in volumes suggest – we analyze stock price dynamics in the two sub-sectors.

6. Following the approach of Acharya et al. (2024),[7] we first calculate the daily returns of the stock market index and of bank and NBFI stock sub-indices. We use the S&P TSX (Toronto Stock Exchange) index as general market benchmark and calculate its daily returns, from 2005 to 2024. Similarly, we calculate the equally weighted average of daily returns of TSX's bank and NBFI constituents, respectively. We then calculate the daily excess returns of TSX and the two sub-indices by subtracting the short-term risk-free rate (1-month Canadian Treasury bill yield). We regress each sub-index daily excess return on the daily excess return of TSX to estimate daily market betas for both sub-indices during rolling 90-day windows. Finally, we calculate the abnormal returns of the two sub-indices as deviations of the actual daily excess return from the theoretical return based on the estimated market betas.[8]

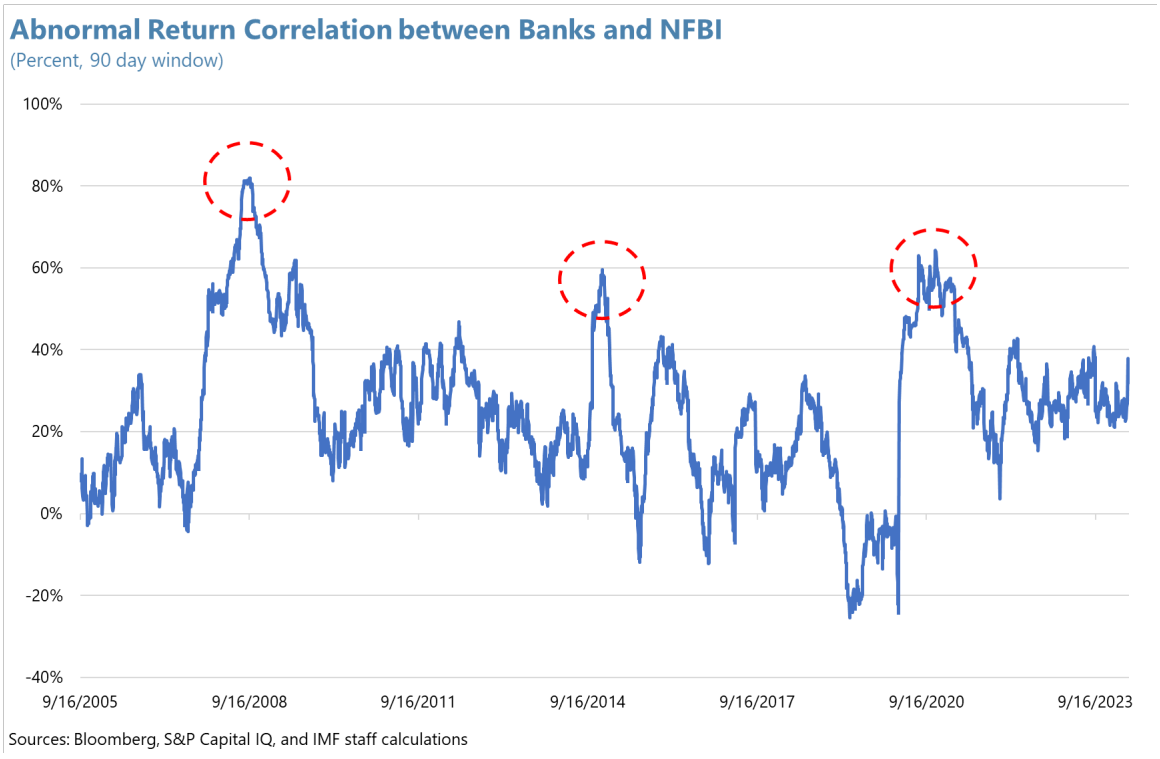
7. The series of abnormal returns of the two sub-indices show a significant increase in correlation between banks and NBFIs around stress episodes (Figure 5). While their correlation typically hovers around 20 percent and rarely surpasses 40 percent in ordinary market conditions (even dipping into negative territory over most of 2019 and until the outbreak of COVID), during stress episodes it tends to spike as high as 60 percent (oil price shock and COVID outbreak) or even 80 percent (GFC).

[7] Acharya, V., N. Cetorelli, B. Tuckman, 'Where Do Banks End and NBFIs Begin?', National Bureau of Economic Research, 2024.

[8] Abnormal return = $(R_{idx,t} - Rf_t) - \beta_{idx,t}*(R_{TSX,t} - Rf_t)$, where $R_{TSX,t}$ is the daily return of TSX, $R_{idx,t}$ is the daily return of a sub-index, Rf_t is the risk-free rate, and $\beta_{idx,t}$ is the estimated market beta of the sub-index.

Annex VIII. Figure 5. Bank/NBFI Abnormal Return Correlation (90-day window)

Correlation between banks and NBFI's abnormal returns spikes around stress episodes

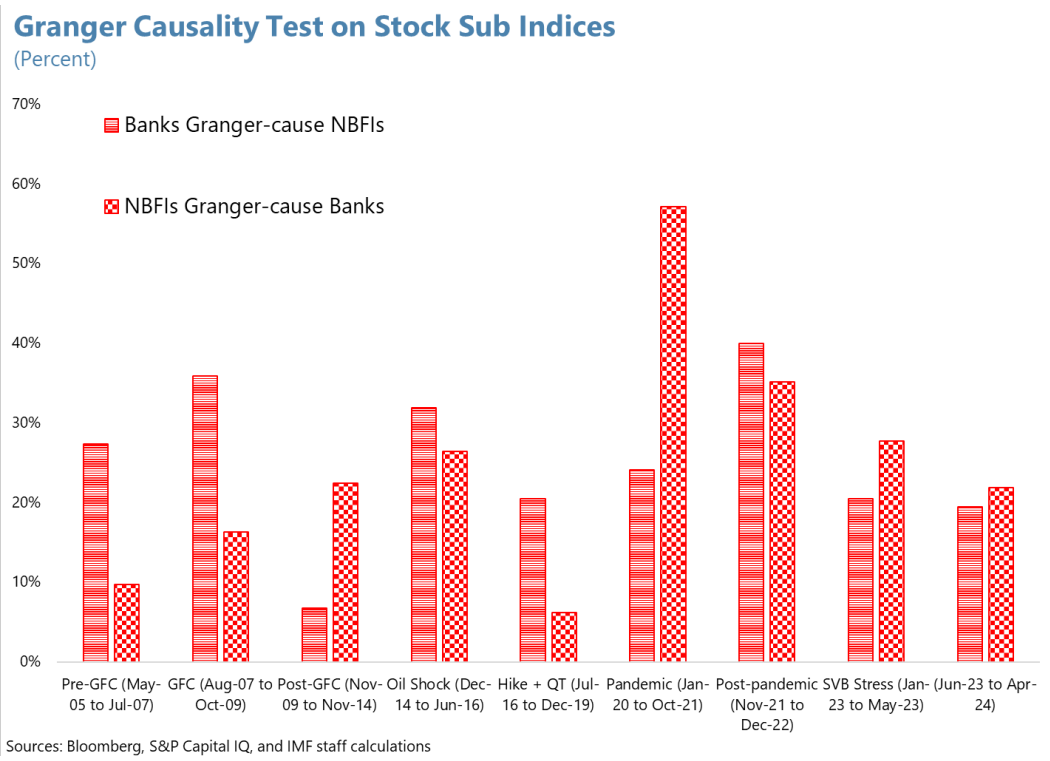


Sources: Bloomberg, S&P Capital IQ, and IMF staff calculations

8. We then run Granger-causality tests between the abnormal returns of banks and NBFIs, in both directions, to investigate the size and sign of their reciprocal influence. The analysis of correlation between banks and NBFIs points to the usual pattern, in financial markets, of increasing co-movement between assets during turmoil. However, given that correlation is not causation, it remains unclear if one of the two sub-sectors tends to have a prevalent influence on the other one; and, in such a case, which of the two. While not a test of causality *strictu sensu*, the Granger causality test can still provide a sense of the prevalent direction of spillovers between the two subsectors. We test if the bank sub-index return Granger-causes the NBFI sub-index (and vice versa), and then calculate the percentage of days in which the null hypothesis of no Granger-causality (in either direction) can be rejected (at 90 percent confidence level), as in Acharya et al.; we also use the same categorization of sub-periods as in their approach.[9]

[9] The sub-periods are: Pre-GFC (May-05 to Jul-07), GFC (Aug-07 to Oct-09), Post-GFC (Nov-09 to Nov-14), Oil Shock (Dec-14 to Jun-16), Hike + QT (Jul-16 to Dec-19), Pandemic (Jan-20 to Oct-21), Post-pandemic (Nov-21 to Dec-22), SVB Stress (Jan-23 to May-23), (Jun-23 to Apr-24).

Annex VIII. Figure 6. Granger-Causality Test Between Bank and NBFI Stock Sub-Indices



Sources: Bloomberg, S&P Capital IQ, and IMF staff calculations

9. The results of the test point to a potential increasing influence of NBFIs on banks (Figure 6). The results of the Granger-causality test confirm the increase in reciprocal influence between the two sub-sectors during stress episodes. They also point to a larger influence of NBFIs on banks in recent years, with respect to previous periods, in particular during the pandemic – although the sample of more recent returns is too limited to reach definitive conclusions on whether we are facing a persistent pattern change. Also, the reciprocal influence between sub-sectors appears more balanced than in the US, when compared with the results of Acharya et al.

10. While the interaction between banks and NBFIs in Canada requires further investigation, the available evidence suggests that it could act as a shock amplifier in stressed market conditions, and more so now than in the past. Neither the evolution of volumes nor the analysis of stock prices points to a potential 'take over' of NBFIs over banks in Canada, unlike for other AE jurisdictions. However, the tests run on the abnormal returns of the bank and NBFI sub-indices do suggest that the influence of NBFIs on banks might be increasing, and even more so under stress. Whether this is the result of an increasing exposure of Canadian banks to NBFIs or the reflection of some more indirect type of linkage, remains to be investigated, data permitting. In any case, given the size of NBFIs in Canada and the increasing illiquid and leveraged investments strategies that some of them pursue, heightened scrutiny of the larger nonbank players is necessary.

Annex IX. Transnational Aspects of Corruption[1]

1. In Canada's Phase 4 evaluation in 2023, the OECD WGB welcomed the authorities' efforts to adopt legal reforms to strengthen the framework in combating foreign bribery. Since 2011, Canada has taken important legislative reforms, including increasing the sanctions available, repealing the facilitation payment exemption, introducing nationality jurisdiction, and broadening the foreign bribery offense under the Corruption of Foreign Public Officials Act (CFPOA), which entered into force in 1999. Adoption of the Extractive Sector Transparency Measures Act promotes the disclosure of payments made by the extractive companies to all governments, while amendments of the Income Tax Act allowed tax-sharing in CFPOA investigations. To bolster enforcement against companies and encourage their cooperation with law enforcement authorities, the Remediation Agreement (RA) framework, a non-conviction-based resolution mechanism, was introduced in 2018. In addition, Canada updated prosecutorial guidelines requiring the prosecution of foreign bribery cases or the invitation of companies to enter into an RA not to consider factors prohibited by the OECD Anti-Bribery Convention, such as national economic interest, the potential effect upon relations with another State, or the identity of the accused. Other positive achievements noted by the WGB include the timely responses of the law enforcement authorities to their foreign counterparts in enforcement and international cooperation, provision of extensive and specialized training to relevant authorities and private sector on the detection of foreign bribery as well as specific legislative reforms, and the high level of engagement with the civil society.

2. Canada should continue taking steps to fight foreign bribery, specifically, enhancing enforcement, maintaining comprehensive statistics, and ensuring liability of legal persons and whistleblower protection. The exceedingly low level of foreign bribery enforcement (only two convictions against individuals and four sanctioned companies in the last 25 years) remains a serious concern of the WGB, given the size of Canada's economy and the industrial sectors in which its companies operate. Law enforcement authorities were encouraged to promptly and proactively enforce foreign bribery legislation against both natural and legal persons and develop an action plan to address challenges impeding enforcement. Such low enforcement is compounded by a general lack of detailed statistics on foreign bribery detection sources, mutual legal assistance, and enforcement. To address the data gap, comprehensive statistics should be maintained, including on investigation, prosecution, termination of cases involving foreign bribery and related offences, and measures taken to increase public accessibility of concluded foreign bribery cases. Furthermore, the WGB recommended alignment of the regimes for liability of legal persons and whistleblower protection with the standards under the Anti-Bribery Recommendation. In particular, these include ensuring liability of legal persons without requiring knowledge of the highest level of managerial authority; enhancing the Integrity Regime to provide greater flexibility and discretion for automatic debarments of companies; and enacting effective whistleblower frameworks with remedies against retaliatory actions.

[1] Information relating to supply-side corruption in this annex draws on the WGB's Phase 4 Report on Canada (October 2023). IMF staff and the Canadian authorities have provided additional views and information whose accuracy have not been verified by the WGB or the OECD Secretariat, and which do not prejudice the WGB's monitoring of the implementation of the OECD Anti-Bribery Convention.

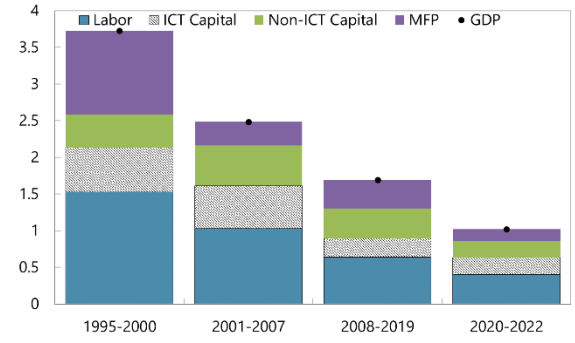
Annex X. Productivity in Canada: Challenges and Opportunities[1]

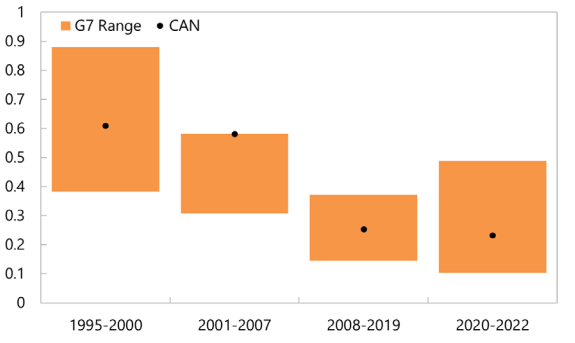
Like most advanced economies, Canada has seen growth declining since the early 2000s and has been losing ground compared to peers, especially the US. This annex explores Canada's productivity challenges by: (i) highlighting aggregate trends across G7 countries and Canadian provinces; (ii) using firm-level data to explore firm investment and firm value; and (iii) linking Canada's aggregate investment challenges to its ability to benefit from broad-based implementation of artificial intelligence (AI). Our findings indicate investment challenges outside of mining and oil and gas extraction and provide firm-level evidence that more investment could increase firm value and stimulate growth. AI could be transformative, but it may also bring substantial risks and may not close widening productivity gaps on its own.

A. Trends in Growth, Labor, Capital, and Productivity

1. Canada's growth slowdown has been driven by decreasing growth contributions from labor, capital, and productivity. Based on the OECD's breakdown of average growth rates for the past three decades, labor has been the main contributor to Canadian growth in the past and above the levels observed in other G7 countries. Investment in ICT has weakened relative to G7 peers, particularly since 2008 and is now below the G7 average while the contribution of non-ICT capital slightly strengthened relative to peers. Finally, multifactor productivity decreased the most since the turn of the century compared to pre-2000 contributions but remained slightly above the G7 average. This is in line with the findings reported in chapter 3 in the April 2024 WEO which documents that the broad-based slowdown in global growth prospects is mainly due to a slowdown in productivity.

Annex X. Figure 1. Contributions to Canadian Growth Rates



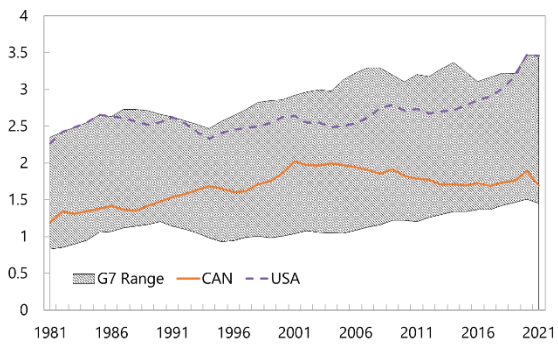


2. Canada's R&D spending has been falling behind that of peers. While R&D spending as a share of GDP has been increasing in recent years for all other G7 countries, Canada's share peaked around the turn of the millennium and has been decreasing ever since. Slight increases in higher

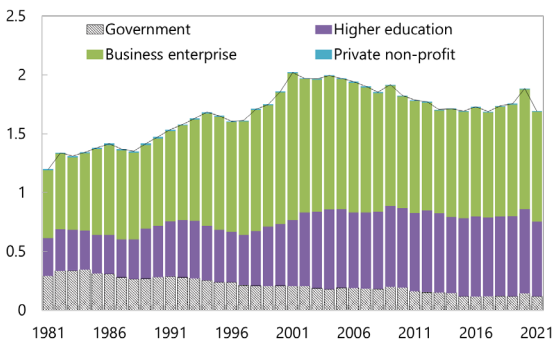
[1] Prepared by Manuk Ghazanchyan, Flora Lutz, Josefine Quast, and Yuanchen Yang.

education R&D spending did not compensate for decreases in public and business R&D expenditures. Since public research is associated with large fiscal multipliers through the creation and diffusion of fundamental knowledge, a pro-innovation policy mix that evolves around public investment in fundamental research, R&D tax incentives, and research grants for start-ups and young companies, and that also encourages strengthened R&D-related linkages between research and education institutions and businesses can lift productivity, boost GDP, and reduce debt-to-GDP in the long run (IMF Fiscal Monitor Apr 2024, Ch. 2). Moreover, realizing potential benefits from broad-based AI will depend on the availability of the appropriate infrastructure and knowledge diffusion that require upfront investment in R&D (Dion, 2007; Sharpe, 2008; Comunale and Manera, 2024). Catching up in these areas, therefore, seems crucial going forward.

Annex X. Figure 2. R&D Spending Across G7 Economies and Canadian Sectors



Sources: OECD and IMF staff computations.



Sources: OECD and IMF staff calculations.

3. Canadian labor productivity has been declining. Canada has the highest share of working-age population (15-64 years) compared to G7 peers, which can be attributed to its progressive immigration policies, since fertility and mortality rates are comparable to peers. But like most advanced economies, Canada sees this share decreasing with accelerating pace. Like its European peers and in contrast to the US, labor force participation increased marginally because female labor force participation rose between 2008 and 2021 (IMF, WEO, April 2024). Yet, especially compared to the US, Canadian labor productivity declined in GDP-per-capita terms in recent years, subduing overall growth. Moreover, OECD data suggests that Canadian workers do not produce as much output per hour worked as US or European peers (see also, e.g., Cross, 2023; Robson and Bafale (2023)).

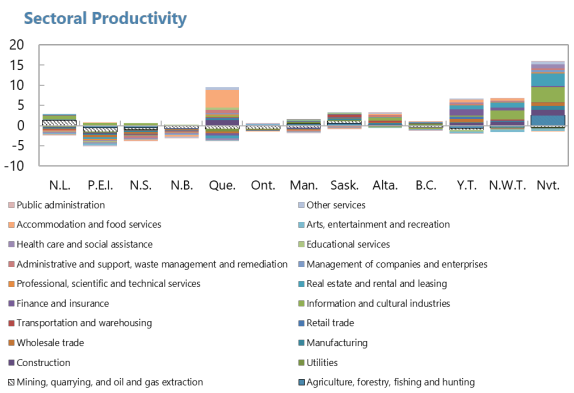
4. Labor productivity differs significantly across provinces, largely because of productivity differences within sectors. Northwest Territories displays the highest labor productivity, almost 50 percent above the Canadian average followed by Nunavut and Alberta. Other provinces, including Prince Edward Islands, Nova Scotia and New Brunswick report labor productivity levels significantly below the Canadian average.[2] Different sectoral compositions across provinces are part of the story, especially in provinces with a large mining and oil/gas extraction

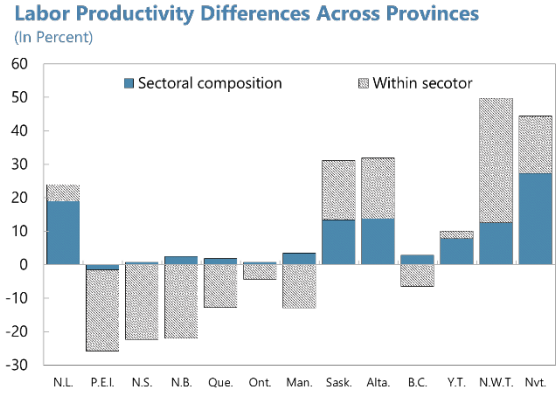
[2] Labor productivity is defined as the ratio between real value added and hours worked (Stat Can).

sector (Newfoundland and Labrador, Saskatchewan, Alberta, Nunavut and Northwest Territories) in which investment and capital intensity are comparatively high (see Figure 3) -- the sector with the highest labor productivity in Canada in 2022.[3] In most provinces, however, productivity differences are mostly explained by within-sector differences (see Figure 3), potentially highlighting the role of persistent interprovincial trade barriers.

5. A large share of Canadian investment is bound in mining and oil/gas extraction. After highlighting potential implications from R&D underinvestment above, Figure 4 illustrates aggregate investment patterns among G7 economies. The left column of Figure 4 shows investment in mining, oil and gas extraction in percentage of total investment, alongside the corresponding capital-to-labor ratio. On the right, combined investment and capital-to-labor ratios for ICT, professional, scientific, technical, and educational activities are shown. While Canada leads the G7 in mining, oil/gas extraction, and transport, it faces investment challenges in almost all other sectors.[4] Compared to Australia, another resource-rich advanced economy, investment allocation is less diversified in Canada. This finding is also in line with Robson and Bafale (2023) who report that investment per available worker is weak in machinery and equipment and especially in intellectual property products (IPP), which constrains labor productivity.

Annex X. Figure 3. Productivity Differences across Provinces





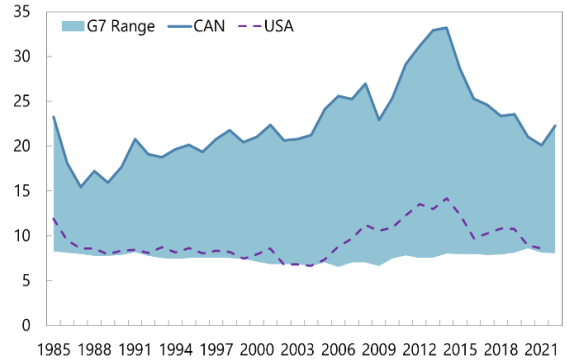
Sources: StatCan and IMF Staff Calculations

[3] For the decomposition we calculate the sectorial component as follows: $\sum_{i \in I} (rGDP_{ij} / rGDP_{j}) / (rGDP_{i\,CAN} / rGDP_{CAN}) * LP_i / LP_{CAN}$), where $rGDP_{ij}$ denotes real GDP of sector i, and province j and LP denotes labor productivity. The sectorial component is then defined as the residual component.

[4] This continues to hold if the investment shares of the G7 peers are normalized with respect to Canadian sector sizes to account for their relative importance. Absolute investment shares are continued to be shown in figure 3 because of limited availability of OECD records on sector sizes ('6A. Value added and its components by activity'), especially for Canada.

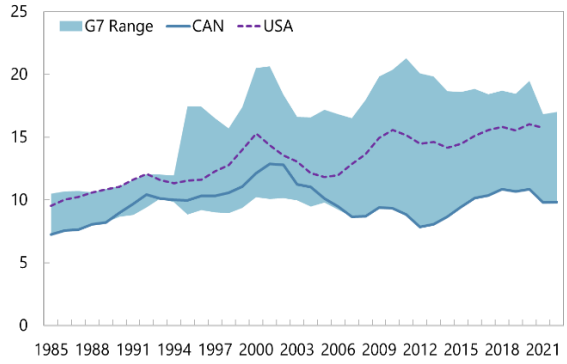
Annex X. Figure 4. Investment, Capital Formation, and Capital Intensity

Investment in Mining, Electricity, and Transportation
(in percent of total investment)



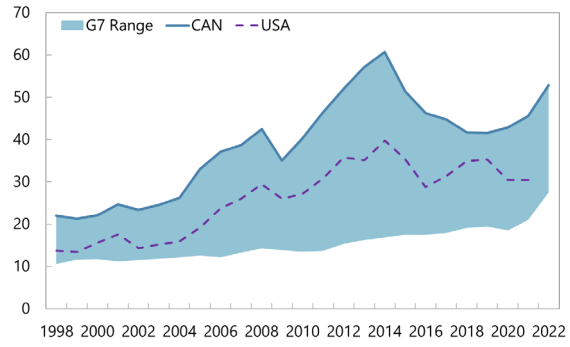
Sources: OECD and IMF staff calculations.

Investment in ICT, R&D and Education-Related Activities
(in percent of total investment)



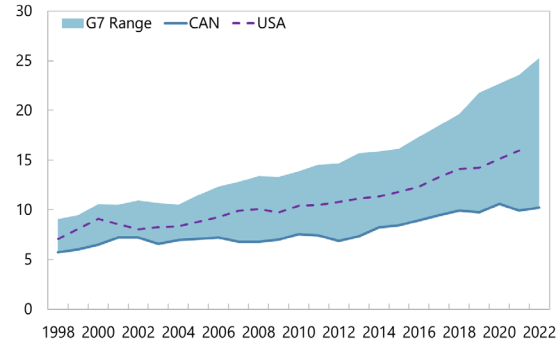
Sources: OECD and IMF staff calculations.

Capital Intensity: Mining, Electricity, and Transportation
(in capital units per hour worked)



Sources: OECD and IMF staff calculations.

Capital Intensity: ICT, R&D and Education-Related Activities
(in capital units per hour worked)



Sources: OECD and IMF staff calculations.

B. Firm-Level Evidence

6. Evidence at the firm level indicates that higher corporate investment is associated with higher productivity growth in Canada. Our analysis investigates Canadian firms' investment and productivity over the past two decades. In a sample of 30,000 firm-year observations covering the period from 2000 to 2024, we find that Canadian firms' productivity growth is strongly correlated with their investment levels, even after controlling for firm size, firm age, leverage ratio, and other idiosyncratic characteristics as well as year fixed effects.[5] Exogenous tightening and loosening of financial conditions are used as instruments to mitigate endogeneity concerns and the results are robust to various definitions of productivity.

[5] The analysis is based on Standard & Poor's Compustat data, which covers publicly traded Canadian firms. Private, non-traded firms are not covered.

Annex X. Table 1. Canada: Corporate Investment, Productivity, and Valuation

Variable	Labor productivity	TFP	Tobin's q
Investment ratio	0.095**	0.031***	0.161*
	(0.037)	(0.006)	(0.091)
Controls	YES	YES	YES
Firm FE	YES	YES	YES
Year FE	YES	YES	YES
No. of Obs.	15,293	11,079	20,078

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

7. In Canada, higher investment is also correlated with higher corporate valuation, measured by Tobin's Q. When replacing productivity growth with Tobin's Q, a measure of firms' market value relative to the replacement value of their assets, we observed a positive and statistically significant coefficient on investment. This finding implies that increasing investment can potentially enhance firms' valuation and prospects for future growth.

8. Underinvestment in Canada could be attributable to financial constraints, decreased competition, and shifts in investment trends. The existing literature has identified various factors that affect firms' investment decisions, most notably financial constraints (Rajan and Zingales, 1998), the rise of intangibles (Peters and Taylor, 2016), high-tech intensiveness (Hsu et al., 2014), corporate governance (Schmidt and Fahlenbrach, 2017), competition (Aghion et al., 2013), etc. The results based on the Canadian firm sample indicate that heightened financial constraints will likely depress firms' investment, whereas firms operating in more competitive environments tend to increase their investment.

Annex X. Table 2. Canada: Factors Influencing Corporate Investment Decisions

Potential explanation		Relevant indicator	Significance	Sign
Financial constraints	1	External finance dependence	√	–
	2	Liquidity	√	–
Changing nature of investment	3	Intangibles	√	–
	4	High-tech intensiveness	√	+
Competition	5	Industry concentration	√	+
Governance	6	Payout ratio	×	
Firm characteristics	7	Firm size	×	
	8	Firm age	×	
	9	Leverage	×	

C. Artificial Intelligence

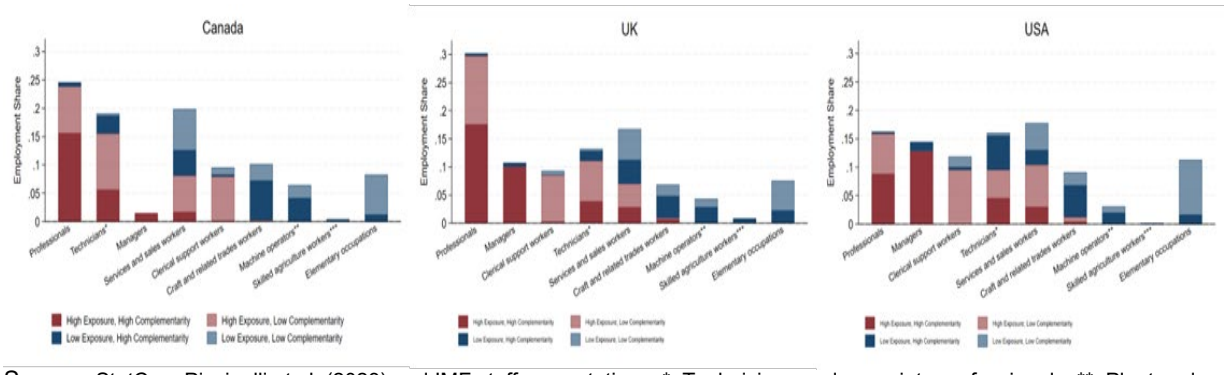
9. This section examines Canadian labor markets' potential to be affected by artificial intelligence. There is by now an extensive literature (starting with Autor, Acemoglu, and others) on the impact of automation on labor markets. Recently, economists have focused on AI in particular, as it seems to have the potential to affect a far wider range of jobs. The earliest studies on AI (e.g., by Felten (2021)) analyzed the extent to which different occupations are "exposed" to AI, meaning that AI could have an impact on how (or whether) the job is performed and how productive workers are. Recent work at the IMF (Pizzinelli et al., 2023) goes one step further and also analyzes whether AI is "complementary" to each occupation—in other words, it differentiates those occupations that are likely to benefit from AI (since workers will be able to harness the potential of the new technology) from those that may be adversely affected (in that AI may substitute for workers altogether).

10. We replicate calculations of a "complementarity-adjusted AI occupational exposure index" to assess whether AI's impact is likely to be different in Canada than it is elsewhere. Data are based on the Occupational Information Network (O*NET) repository. It is important to note

that our study suggests *potential* impacts of AI, but realizing these impacts will require adoption of AI, which in turn will depend on the availability of infrastructure to engage with the technology needed to implement AI (Comunale and Manera, 2024), as well as an appropriate regulatory framework to contain risks.[6] In this context, increasing spending on R&D and promoting its diffusion will be critical going forward (Dion, 2007; Sharpe, 2008). Canada also lags behind in the commercialization and adoption of AI and trails the global average in IBM's Global AI Adoption Index, ranking behind, for example, India, China, Germany, and France.[7,8]

11. The impact of AI adoption will likely differ across occupations. In Canada, professionals and technicians display the highest share of high exposure and high complementarity workers, i.e., workers who are likely to benefit from AI adoption and are thus associated with potentially larger productivity gains. Other professions, including clerical support workers, face a higher risk of substitution given their high exposure but low complementarity with respect to AI. Finally, low-exposure professions such as machine operators are less likely to be significantly affected by AI. In the UK and the US, the share of likely-to-benefit managers is larger compared to Canada, whereas a large share of Canadian technicians faces relatively high substitution risks.

Annex X. Figure 5. AI and the Labor Market



Sources: StatCan, Pizzinelli et al. (2023) and IMF staff computations. *: Technicians and associate professionals. **: Plant and machine operators and assemblers. ***: Skilled agricultural, forestry and fishery workers.

12. AI could potentially boost Canadian firms' productivity. Our empirical work indicates that high AI exposure is associated with higher total factor productivity (TFP) and corporate valuation in Canada, while it appears to have no relation to labor productivity. This suggests the potential of harnessing AI tools in enhancing firm productivity going forward.

[6] Canada currently has no regulatory framework in place that is specific to AI, however the government introduced the Artificial Intelligence and Data Act (AIDA) as part of Bill C-27 in November of 2021. The bill has passed second reading in the House of Commons and is currently being studied by the industry and technology committee. Until AIDA comes into effect, the Voluntary Code of Conduct on the Responsible Development and Management of Advanced Generative AI Systems designed to temporarily provide Canadian companies with common standards was also introduced in 2023.

[7] According to CGI 2023 report, 65 percent of Canadian organizations are investing or conducting proofs of concept using AI but only 4 percent have implemented AI.

[8] https://internetsociety.ca/press-release-ai-event-march-29/.

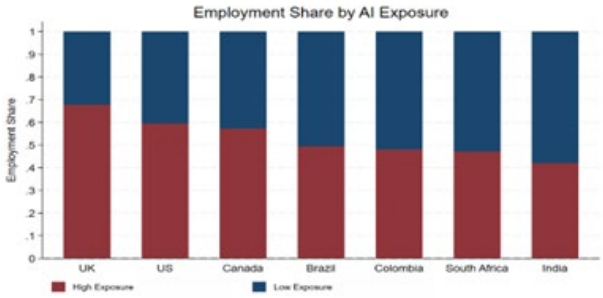
Annex X. Table 3. Canada: AI and Productivity

Variable	Labor productivity	TFP	Tobin's q
AI exposure	-0.002	0.037**	4.857***
	(0.002)	(0.019)	(1.853)
Controls	YES	YES	YES
No. of Obs.	307	528	528
Adjusted R2	0.156	0.162	0.248

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

13. AI adoption may, however, boost productivity by less than in other countries, suggesting that Canada's productivity gaps will persist. First, as shown in the chart, a smaller share of the Canadian labor force is in highly exposed occupations compared to the US and UK. Thus, while AI may boost productivity in these occupations in all countries, the aggregate effect may be smaller in Canada than elsewhere, and Canada will remain behind in comparison, suggesting persistent instead of narrowing productivity gaps.[9]

Annex X. Figure 6. AI and the Labor Market: Cross-country Comparison

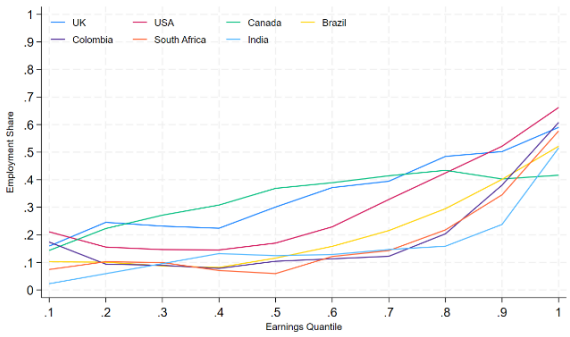


Source: Stat Can; IMF staff calculations.

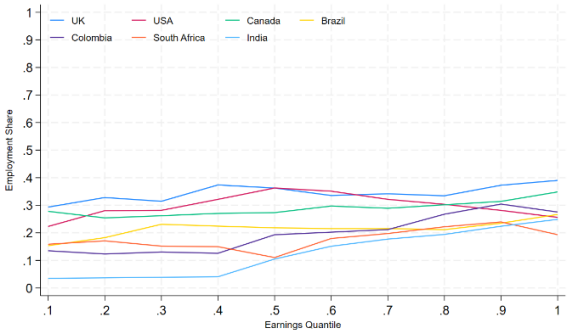
14. AI seems less likely to worsen income inequality in Canada than in other countries. In several comparators, employment in high-exposure / high-complementarity occupations is concentrated in the upper deciles of the income distribution. This suggests that AI—which could benefit those occupations—could worsen income disparities. But in Canada, occupations that will benefit from AI are distributed more evenly across the income distribution. That said, in Canada as elsewhere, more highly educated workers are more likely to benefit from AI adoption, suggesting that even in Canada, AI could worsen inequality, which is one of the adverse risks of AI about which the government needs to be mindful. Moreover, as in other countries, males are more heavily represented in high-exposure / high-complementarity occupations than females are, suggesting that AI could worsen gender gaps. It also appears that middle-aged workers may benefit more than the young and the old. All these observations call for a mindful broad-based AI adoption and appropriate risk mitigation strategies, particularly for the most vulnerable groups.

[9] This, at least, would be the initial impact. Labor markets evolve over time, and our work, based on the current distribution of occupations, will likely not be able to accurately capture the longer-term implications of AI.

Annex X. Figure 7. AI and the Income Distribution: Cross-country Comparison



Note: Share of Employment in high exposure occupations by earnings decile, high exposure / high complementarity. Source: Pizzinelli et al. (2023), Stat Can; IMF staff calculations.



Note: Share of Employment in high exposure occupations by earnings decile, high exposure / low complementarity. Source: Pizzinelli et al. (2023), Stat Can; IMF staff calculations.

D. Conclusions

15. Canada's long-standing investment challenges outside of mining and oil/gas extraction increasingly reflect in strained labor and multifactor productivity. Addressing these investment challenges through improving the overall business environment as well as increasing and incentivizing total R&D spending should be areas of policy priority to stimulate growth prospects. On top of these investment challenges, capital misallocation concerns reflected, for example, in a higher share of zombie firms compared to peers (Albuquerque and Iyer, 2023) put further downward pressure on productivity. These issues emerge increasingly also in mining, quarrying, and oil/gas extraction (Amundsen et al., 2023) and are likely to become more severe as the green transition progresses.

16. Firm-level analysis indicates that there is potential to increase productivity in Canada by increasing firm investment. Canadian firms' investment levels appear relatively subdued compared to their valuation, possibly due to factors such as financial constraints, lack of competition, etc. Given the strong and positive correlation between investment and productivity, there is potential to further bolster investment, particularly in high-tech areas such as AI, thereby stimulating productivity growth.

17. AI has the potential to boost productivity, but it will likely not close Canada's productivity gaps relative to peers. Indeed, other countries' occupational structure is such that they may initially benefit more from AI than Canada, implying that productivity gaps could widen, underscoring the need to reprioritize investment into ICT- and R&D-focused sectors. Promoting a pro-innovation policy mix evolving around public investment for fundamental research, grants for innovative start-ups and young firms, and R&D tax incentives could uplift productivity and GDP, while reducing credit-to-GDP in the long run (IMF Fiscal Monitor Apr 2024, Ch. 2).

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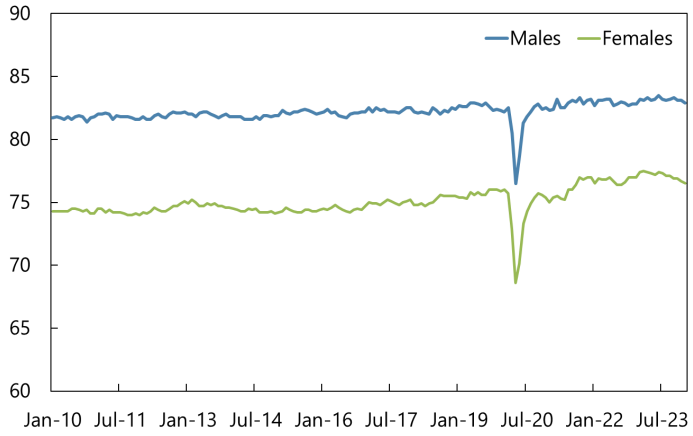
Annex XI. Gender Equality and Affordable Childcare: The Case of Canada

While female labor force participation (LFP) is high in Canada relative to other advanced economies, it varies significantly across different groups and is consistently below male LFP. Gender gaps in LFP are a common feature across countries, with women's disproportionate responsibility for childcare duties often being cited as one of the factors behind their lower participation. In this context, the federal government announced a Canada-wide early learning and childcare plan in the 2021 Budget with the goal of bringing fees for regulated childcare down to CAD10 per day on average by 2026. This annex uses an overlapping generations model (OLG) to estimate the potential macroeconomic impact of this program.

1. Although female labor force participation (LFP) is relatively high in Canada, substantial gender gaps remain, particularly for less educated Canadians. Female LFP in Canada was 76.5 percent as of January 2024 (calculated using the 15–64 age group and Statistics Canada data), above the average for advanced economies (68.4 percent – calculated using ILOStat data) but lower than that of Canadian males (82.9 percent). As shown in Figure 2, gaps in labor force participation were particularly high for the age groups between 30 and 39 years of age, and more evident in groups with lower education levels.[1] In terms of weekly hours worked, women across the majority of age – education groups worked fewer hours than men (on average 4.7 hours less), with a larger gap for women in their 30s and without a high school diploma (see Figure 3).

Canada: Labor Force Participation For Age Group 15-64
(Percent, monthly, seasonally adjusted)



Source: Statistics Canada

2. Gendered care work reduces time available for women to perform paid work. The unequal distribution of unpaid household responsibilities can create limitations for women's labor force participation. In particular, in the case of childcare, lack of childcare availability may reduce labor force participation for mothers not only when they have young children but also later in life, as prolonged periods out of the workforce can lead to the depreciation of their human capital. This gap in employment can result in lost skills, diminished work experience, and reduced opportunities for career advancement, further decreasing mothers' ability to re-enter the labor market or secure higher-paying positions in the future. On a macroeconomic level, it can have the effect of negatively affecting the human capital of mothers. In this context, the federal government announced a

[1] Calculated using Public Use Microdata from the Labor Force Survey.

Canada-wide early learning and childcare plan in the 2021 Budget with the goal of bringing fees for regulated childcare down to Can$10 per day on average by 2026.

3. Making childcare more affordable in all provinces and territories is one of the main objectives of the Canada-wide Early Learning and Child Care program. The program target of bringing fees down to Can$10 a day applies throughout Canada, except for Quebec, which already has an established affordable child-care system introduced in 1997.[2] The Quebec experience suggests that, in the long run, the policy had the effect of increasing take-up of out-of-home childcare services, as well as working hours for mothers and female labor force participation overall. In the short run, however, several studies found that the effects on children were negative on several outcomes because of the deterioration in the quality of services during the initial major expansion of the program, highlighting the importance of investing to ensure that increases in capacity are accompanied by a continued focus on the quality of education.[3]

4. Modelling this policy using an Overlapping Generations Model (OLG) allows us to estimate its long-run economic effects. The recency of the rollout of the childcare program, and its overlap with the recovery from the pandemic and the increase in flexible work arrangements, present challenges to evaluating the effects of this policy empirically. However, it is possible to calibrate a model to the case of Canada to analyze the effects this policy may have on female labor force participation in the long run. The overlapping generations gender model considers the impediments that childcare responsibilities pose on women in terms of labor force participation (LFP) and hours worked, as well as the losses in marketable skills due to not being in the labor market when affordable childcare options are not available. The model was calibrated to Canada, to analyze the potential aggregate long-term macroeconomic impacts of the affordable childcare plan on LFP, hours worked, wages, GDP and fiscal outcomes.

5. The OLG model includes several types of agents, to mimic heterogeneities in Canada's households. Individuals differ exogenously by gender (male and female), age group, educational attainment, and immigrant status. The model also distinguishes between two types of households: couples who will have children at some stage in their lives, and single households without children. Couples share a single utility function, maximizing consumption and facing a work disutility that varies by gender and age group, to match Canada's micro-data on labor force participation. When couples have children, an additional disutility is incurred if the female works. This cost is associated with the challenge of managing multiple household activities, such as home production and child-rearing. In the budget constraint, a childcare cost is included if the mother is employed. Conversely, single households maximize the individual's utility alone. Consequently, different types of

[2] In 2021, around 72 percent of preschool age children in Quebec attended a childcare setting regularly (see Accessibility and use of childcare services in Québec in 2021 (quebec.ca))

[3] See Baker, M., Gruber, J., & Milligan, K. (2008). Universal childcare, maternal labor supply, and family well-being. Journal of political Economy, 116(4), 709-745. and Baker, M., Gruber, J., & Milligan, K. (2019). The long-run impacts of a universal childcare program. American Economic Journal: Economic Policy, 11(3), 1-26.

households will have varied labor supply decisions, human capital accumulation, incomes, and consumption levels.

6. The model is calibrated using Canada's micro and macro data. The OLG model captures key aspects of the Canadian economy, such as demographics (age cohorts, education, immigration, and household type), returns from experience, human capital accumulation, and gender differences in hours worked and labor force participation. A representative firm hires both male and female effective labor hours and rents capital at rate r* to produce the consumption good. The production function is calibrated to reflect the capital share, depreciation rate, TFP growth, and unexplained gender pay gaps in the Canadian economy. The government collects taxes on labor income (labor income tax and social security contributions), consumption (VAT), and firms' revenues, and spends on goods, childcare, and pension benefits. The model is similar to the model described in Malta and others (2024).[4]

7. The model assumes that childcare fees paid by households decrease from an average of Can$43/day to Can$10/day. The initial cost of Can$43/day is a country-average calculated by IMF staff using *Statistics Canada* estimates of how much households pay for full-time childcare.[5] This calculation, however, abstracts away from the costs required to ensure that childcare facilities can operate as needed (i.e., the costs of providing the appropriate infrastructure and trained staff). In other words, supply is assumed to expand to meet demand, whereas in the real world this may not happen. Indeed, without efforts to expand supply, fee reductions may merely deliver a windfall to families that already have access. Therefore, the total costs from the policy in the short to medium term might be underestimated in the model.

8. The results of the model suggest that the program could yield significant benefits in terms of female LFP, potentially increasing it by at least 5.5 percentage points in the long term. These labor force changes would result in a permanent 1.8 percent increase in GDP compared to a scenario without the program. These estimates are broadly comparable to previous results from the Quebec experience, where it was calculated that investment in childcare would boost GDP by about 1.7 percent. In the Quebec case, the program was estimated to have boosted the employment rate of mothers with young children by around 7-8 percentage points.[6] The model estimates show comparable results for women with young children, with an increase in female LFP of 6.7 percentage points. The increase in labor force participation would be across all age groups (notably for women from 25 to 59 years of age), and higher for women without university degrees. The increase in LFP for older women in the new equilibrium of the model is due to women not dropping out of the labor force in child-rearing years, allowing them to accumulate more experience and increase their human capital. The larger effect on less educated women is in line with estimates from Quebec,

[4] See IMF Country Report No. 24/108 Austria: Selected Issues (imf.org)

[5] See Anne Guèvremont and Leanne Findlay 'Estimates of parental child care expenses in January to February 2022' (link). This estimate is very close to Canada's *Employment and Social Development Canada* department estimate, which is CAD44 per day.

[6] See Fortin, P., Godbout, L., & St-Cerny, S. (2012). Impact of Quebec's universal low fee childcare program on female labor force participation, domestic income, and government budgets. 607-615.

where increases in labor force participation were greater for females with lower education (see Lefebvre et al (2009)).[7]

9. Aggregate consumption would also grow. The model suggests that aggregate consumption would increase, driven by higher disposable income for families in which women enter the labor market. Women entering the labor force generate a virtuous cycle of economic growth in both the supply side and the demand side of the economy. The model also estimates that 100,200 children could be added to the childcare system, boosting the care economy.[8] Hours worked by males would slightly decrease (by 0.3 percent) due to higher household income, as well as average female wages (by 1.3 percent), as less-educated women would join the workforce.

10. The economic impacts of the policy could be amplified if further reductions in gender biases materialize. The economic gains directly due to increased labor force participation represent a lower bound to the overall positive economic and fiscal impact that the expansion of childcare in Canada could generate. As families normalize having children in the childcare system and women participate more in the labor market, gender biases in the labor market are expected to reduce even further. Therefore, we would expect that the parameters related to gender gaps used to calibrate the model (including the unexplained gender pay gap) change over time. An additional decrease in gender gaps could further increase the impact of the policy, as explored in the next paragraph.

11. A scenario in which a decrease childcare costs to Can$10/day is accompanied by a decrease in the gender pay gap shows massive potential economic gains. In order to quantify the potential economic gains associated with a reduction in gender bias, as proxied by the unexplained gender wage gap, we analyze a scenario in which, in addition to childcare costs decreasing to Can$10/day, the unexplained gender pay gap goes from around 10 percent[9] to zero. In this scenario, female LFP would increase by 8.4 percent (instead of 5.5 percent), and GDP gains would amount to 8.3 percent (instead of 1.8 percent).

12. The model's estimates suggest that policies addressing childcare affordability and gender wage gaps may result in large economic gains. The model calculates long-term results, and while in practice the effects of the expansion of the childcare policy might take some time to fully materialize, the potential economic benefits are quite large, suggesting that the associated long-term multiplier of the policy could be in line with the long-term multipliers found for public investment. However, the positive impact of the policy will depend on investment directed to

[7] Lefebvre, Pierre, Philip Merrigan, and Matthieu Verstraete. "Dynamic labour supply effects of childcare subsidies: Evidence from a Canadian natural experiment on low-fee universal childcare." Labour Economics 16.5 (2009): 490-502.

[8] This estimate reflects only the children that would need childcare because mothers re-entered the labor force. There could be however, children already in other types of childcare, that would transfer to the new Can$10/day childcare system.

[9] We estimated the unexplained gender pay gap using Public Use Microdata from the Labor Force Survey and a Blinder-Oaxaca decomposition analysis.

increasing capacity to satisfy additional demand, in particular to train and retain more early childhood educators, and to build more centers.

Annex XI. Table 1. Canada: Labor Force Participation Difference (male–female)
(Percentage points)

	Non-immigrant				Immigrant		
Education level	1	2	3	4	1/2	3	4
Age group							
20 to 24 years	14.02	0.48	-3.66	1.30	10.37	3.09	-10.93
25 to 29 years	10.22	7.06	6.90	-1.02	26.34	6.25	8.79
30 to 34 years	27.69	11.91	6.82	1.88	28.79	10.61	6.13
35 to 39 years	25.74	11.07	8.65	2.55	33.59	14.70	11.87
40 to 44 years	14.55	7.92	5.56	4.55	26.16	12.90	10.27
45 to 49 years	13.32	6.57	3.22	2.60	27.69	10.27	10.98
50 to 54 years	15.49	8.44	5.24	4.03	19.86	1.10	5.46
55 to 59 years	8.88	12.16	5.37	10.15	15.01	1.08	9.07
60 to 64 years	9.54	12.61	15.07	11.86	22.96	20.42	15.17

Source: Labor Force Survey Public Use Microdata
Note: education level 1 corresponds to less than high school graduation, 2 corresponds to having graduated from high school or having partial postsecondary education, 3 corresponds to having a non-university postsecondary certificate or diploma, 4 to having a university degree or certificate.

Annex XI. Table 2. Canada: Weekly Hours Worked (male–female)
(Hours worked)

	Non-immigrant				Immigrant		
Education level	1	2	3	4	1/2	3	4
Age group							
20 to 24 years	5.56	6.26	4.40	0.89	5.59	3.25	5.79
25 to 29 years	11.10	6.25	6.85	2.97	-0.64	0.32	4.50
30 to 34 years	9.38	3.57	8.23	7.35	4.11	7.67	2.95
35 to 39 years	3.56	7.23	6.22	5.56	4.64	9.02	7.76
40 to 44 years	5.82	4.39	6.29	4.31	6.82	5.76	5.09
45 to 49 years	8.57	4.19	5.91	3.43	1.61	3.33	5.01
50 to 54 years	8.92	4.92	5.42	3.77	2.58	5.03	3.65
55 to 59 years	1.55	4.23	3.47	5.38	2.10	6.65	4.68
60 to 64 years	3.94	3.13	5.62	2.29	4.74	4.18	4.84

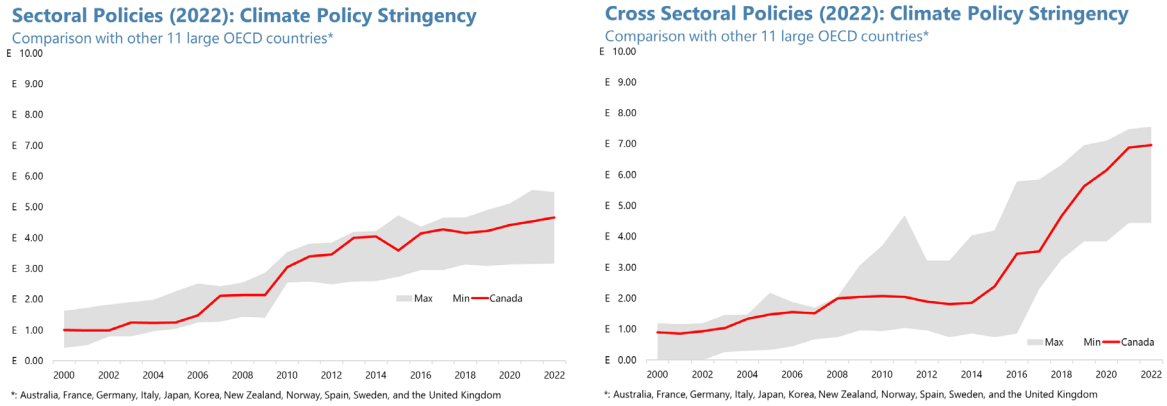
Source: Labor Force Survey Public Use Microdata
Note: education level 1 corresponds to less than high school graduation, 2 corresponds to having graduated from high school or having partial postsecondary education, 3 corresponds to having a non-university postsecondary certificate or diploma, 4 to having a university degree or certificate.

Annex XII. Canada's Climate Mitigation Policies[1]

How do carbon emissions differ across firms within the same industry? Through which channels do climate policies impact emissions? This box adds to previous IMF work on this topic by using a more granular approach and highlights how taking this heterogeneity into account matters when evaluating emission-reducing policies. This analysis is informed by empirical patterns found at the firm-level, and substantiated with a general equilibrium model incorporating heterogenous firms and margins of adjustment such as vintage upgrades and R&D.

1. As the 12th largest emitter of greenhouse gases (GHG)[2], Canada has appropriately enacted an ambitious decarbonization plan (the Pan-Canadian Framework on Clean Growth and Climate Change), with the objective of reducing emissions in 2030 by between 40 and 45 percent relative to 2005 levels. The framework is centered on a carbon pricing system—one of the most ambitious in the world—covering more than 80 percent of GHG emissions, with a pre-determined path of increasing carbon prices from Can$80/ton CO2 in 2024 to Can$170 in 2030.[3,4] Together with the other climate mitigation policies implemented at federal and provincial levels, this positions Canada among the countries with the highest domestic climate mitigation policy stringency (see Figure 1).[5]

Annex XII. Figure 1. Climate Actions and Policies



Source: OECD, Climate actions and policies measurement framework dataset

[1] Prepared by Chiara Ferrero (FIN) and Pierpaolo Grippa (MCM). The model analysis in this box was prepared by Damien Capelle (RES), Divya Kirti (RES), Nicola Pierri (FAD), and Germán Villegas Bauer (RES).

[2] EDGAR (Emissions Database for Global Atmospheric Research) Community GHG database version 8.0 (2023). For a discussion on reliable quantifications of uncertainties around EDGAR emissions, see, for example, Solazzo, E., Crippa, M., Guizzardi, D., Muntean, M., Choulga, M., and Janssens-Maenhout, G., 2021, "Uncertainties in the Emissions Database for Global Atmospheric Research (EDGAR) emission inventory of greenhouse gases", Atmospheric Chemistry and Physics, 5655–5683.

[3] OECD, Pricing Greenhouse Gas Emissions: Turning Climate Targets into Climate Action, November 2022.

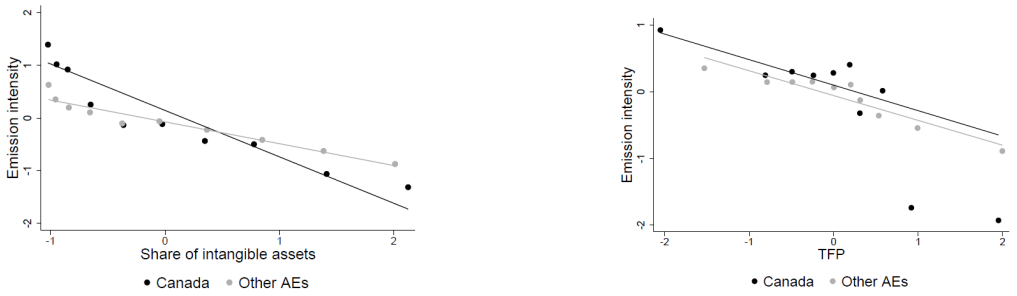
[4] 2023 Progress Report on the 2030 Emissions Reduction Plan, Government of Canada. Emissions are estimated to have decreased by around 15 percent between 2023 and 2005.

[5] OECD, Climate actions and policies measurement framework dataset. The peer country group is comprised of: Australia, France, Germany, Italy, Japan, Korea, New Zealand, Norway, Spain, Sweden, and the United Kingdom.

2. Emissions reductions' policies target both cross-sectoral and sector-specific objectives. Empirical evidence shows that, even within sectors, there is significant heterogeneity in firm-level emissions. Firms that are less productive and are less knowledge-intensive (have lower share of intangible assets) have higher emission intensities, measured as emissions per unit of revenue. The examples across sectors and for the mining and quarrying sector illustrate this heterogeneity in Canada and other advanced economies (Figure 2).

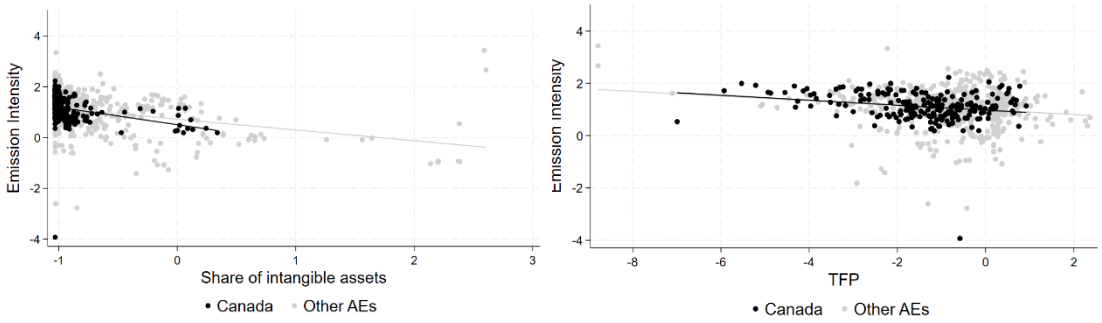
Annex XII. Figure 2. Emission Intensity and Firm Characteristics
(Log of emissions over revenues)

Across sectors



Notes: The figures display a binned scatter plot of emission intensity (the logarithm of emissions over revenue) against the share of intangible assets and TFP. All variables are standardized. Finance, public administration, and utilities sectors are excluded from the calculations.

Mining and Quarrying sector



Notes: The figures display a scatter plot of emission intensity (the logarithm of emissions over revenue) against the share of intangible assets and TFP. All variables are standardized.
Source: ICE Data Services, S&P Compustat Global, IMF staff calculations (see Capelle et al (2023))
Note: All values have been standardized to have mean zero and standard deviation of 1.

3. The general equilibrium model developed in Capelle and others (2023)[6] rationalizes these empirical findings. The model is used to analyze the effects of Canada's carbon pricing policy on firms and incorporates appropriate margins of firm adjustment, such as upgrades to newer vintages of capital and investments in R&D. The model is applied to the case of Canada and

[6] Capelle,D, D. Kirti, N. Pierri, and G. Villegas Bauer, 2023, "Mitigating Climate Change at the Firm Level: Mind the Laggards," IMF Working Paper 23/242 (Washington: International Monetary Fund)

considers three policies: carbon taxation, subsidies for capital upgrades, and subsidies for research and development (intended to support research activities that improve internal total factor productivity and quality). When considering a similar reduction in emissions (between 14 and 15 percent), carbon taxation results in the lowest consumption and fiscal costs (Figure 3, left panel). The projected increase in carbon prices to Can$170 by 2030 is expected to decrease emissions by about 17 percent versus 2023 levels, and 28 percent with respect to 2005 levels (leaving other policies to make up the gap vis a vis the targeted 40-45 percent reduction).[7]

4. The model estimates suggest that the largest share of the reduction in emissions would come from firms' optimizing their inputs' mix (including reducing energy consumption), as opposed to scaling down output, updating their capital, changing the capital goods sector's emissions, or reallocating factors across firms, as depicted in the figure above.

Annex XII. Figure 3. Policy Instruments

(Carbon tax is more efficient than other tools)

	Reduction in emissions (percent)	Policy Instrument	Output (percent)	Fiscal (percent of GDP)	NPV of Consumption (percent)
Carbon Tax	-14.3	149 CAD	-1.8	4.4	-3.1
Research Subsidy	-14.9	75.3 percent	-8.1	-8	-5
Capital Subsidy	-14.9	42.3 percent	3.8	-17.4	-16.2
Carbon Tax	-17	170 CAD	-2.5	4.9	-3.8

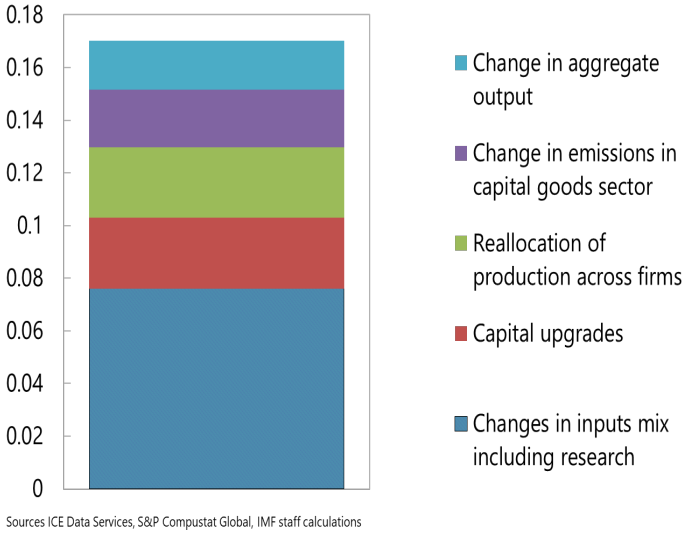
Sources: ICE Data Services, S&P Compustat Global, IMF staff calculations (see Capelle et al (2023))

Note: All values in columns (1) to (3) are in terms of percentage changes relative to the actual economy with a CAD 65 carbon tax. ICE Data Services contains self-reported yearly firm-level emissions which are based on the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. S&P Compustat Global covers firms that issue publicly traded securities.

[7] A 2023 analysis by the Canada Climate Institute concluded that the overall package of current and proposed policies, if fully implemented, could deliver emission reductions between 34 and 36 percent by 2030, with respect to 2005 levels. (Sawyer et al (2023), Independent Assessment of the 2023 Emissions Reduction Plan Progress Report, Canada Climate Institute)

Annex XII. Figure 4. Channels of Emissions Reduction

An increase in tax to CAD 170 is estimated to result in a 17 percent reduction in emissions.



Sources: ICE Data Services, S&P Compustat Global, IMF staff calculations (see Capelle et al (2023))
Note: All values in columns (1) to (3) are in terms of percentage changes relative to the actual economy with a CAD 65 carbon tax. ICE Data Services contains self-reported yearly firm-level emissions which are based on the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. S&P Compustat Global covers firms that issue publicly traded securities.

5. The expected emissions reductions and output costs from carbon pricing are closely aligned with the conclusions reached by in the previous Article IV: using the IMF-ENV model, IMF staff estimated that Canada's carbon pricing alone could deliver a decrease of 29 percent in emissions relative to BAU (business as usual) at a cost of between 0.2 and 1.2 percent of GDP. Previous analysis by IMF staff also estimated that the burden on households of increasing carbon price to Can$170 would be around 2 percent of consumption prior to revenue use.[8] Taken together, these different analyses confirm that carbon pricing remains the most efficient tool to reduce emissions, even when considering within-industry heterogeneity and technological adoption.

[8] Canada Selected Issues Paper, IMF Country Report 21/55 (Washington: International Monetary Fund). This is smaller than the estimate in this box, which forecasts a cost of about 3.8 percent in the net present value of consumption. One difference is that the GE model of Capelle et al. does not consider changes in the energy mix by utilities companies.

Annex XIII. Data Issues

Annex XIII. Figure 1. Data Adequacy Assessment Rating 1/

A							
Questionnaire Results 2/							
Assessment	National Accounts	Prices	Government Finance Statistics	External Sector Statistics	Monetary and Financial Statistics	Inter-sectoral Consistency	Median Rating
	A	A	A	A	B	A	A
Detailed Questionnaire Results							
Data Quality Characteristics							
Coverage	A	A	A	A	B		
Granularity 3/	A		A	A	B		
			A		B		
Consistency			B	A		A	
Frequency and Timeliness	A	A	B	A	A		

Note: When the questionnaire does not include a question on a specific dimension of data quality for a sector, the corresponding cell is blank.
1/ The overall data adequacy assessment is based on staff's assessment of the adequacy of the country's data for conducting analysis and formulating policy advice, and takes into consideration country-specific characteristics.
2/ The overall questionnaire assessment and the assessments for individual sectors reported in the heatmap are based on a standardized questionnaire and scoring system (see IMF *Review of the Framework for Data Adequacy Assessment for Surveillance*, January 2024, Appendix I).
3/ The top cell for "Granularity" of Government Finance Statistics shows staff's assessment of the granularity of the reported government operations data, while the bottom cell shows that of public debt statistics. The top cell for "Granularity" of Monetary and Financial Statistics shows staff's assessment of the granularity of the reported Monetary and Financial Statistics data, while the bottom cell shows that of the Financial Soundness indicators.

A	The data provided to the Fund is adequate for surveillance.
B	The data provided to the Fund has some shortcomings but is broadly adequate for surveillance.
C	The data provided to the Fund has some shortcomings that somewhat hamper surveillance.
D	The data provided to the Fund has serious shortcomings that significantly hamper surveillance.

Rationale for staff assessment. In general, Statistics Canada and the BoC provide timely and adequate data for surveillance. Room for improvement remains with respect to a timelier dissemination of central government operations where Canada currently disseminates monthly data within 60 instead of 30 days after the end of the reference period. Coverage and granularity in MFS data could also be improved. Data on NBFIs and detailed data on other depository corporations with breakdowns by financial instrument are not available. Currency denominations and information about counterparties would improve assessments of macrofinancial linkages. BoC disseminates timely data for the central bank balance sheet but has not disseminated balance sheet data for other depository corporations or other financial corporations for many years. StatCan plans to resume disseminating these by end-2024.

Annex XIII. Figure 1. Data Adequacy Assessment Rating 1/ (concluded)
Changes since the last Article IV consultation. No relevant changes since last Article IV consultations.
Corrective actions and capacity development priorities. The authorities plan to close reporting gaps related to balance sheet data for other depository (2SR) and other financial institutions (4SR) by the end of the year. Continued efforts to address other nonbank-related data gaps will be an emphasis of the upcoming 2025 FSAP.
Use of data and/or estimates different from official statistics in the Article IV consultation. Not relevant for Canada.
Other data gaps. Progress in addressing data gaps on NBFI liquidity monitoring has been slow, specifically in the supervision of non-federal pension funds where supervisory responsibilities remain unclear, and the exchange of information remains scarce.

Annex XIII. Figure 2. Data Standards Initiatives
Canada adheres to the Special Data Dissemination Standard (SDDS) Plus since April 2017 and publishes the data on its National Summary Data Page. The latest SDDS Plus Annual Observance Report is available on the Dissemination Standards Bulletin Board (https://dsbb.imf.org/).

Annex XIII. Table 1. Canada: Common Indicators Required for Surveillance

(As of May 31, 2024)

	Data Provision to the Fund				Publication under the Data Standards Initiatives through the National Summary Data Page			
	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Expected Frequency[6,7]	Canada[8]	Expected Timeliness[6,7]	Canada[8]
Exchange Rates	Same day	Same day	D	D	D	...	...	...
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	May 31, 2024	May 3, 2024	M	M	M	M	1W	1W
Reserve/Base Money	Mar 31, 2024	May 17, 2024	M	M	M	M	2W	2W
Broad Money	Oct, 2023	Jan 12, 2024	M	M	M	M	1M	NLT 1M
Central Bank Balance Sheet	Apr 30, 2024	May 14, 2024	M	M	M	M	2W	2W
Consolidated Balance Sheet of the Banking System	Mar 31, 2024	May 21, 2024	M	M	M	M	1M	NLT 1M
Interest Rates[2]	Same day	Same day	D	D	D	...	...	...
Consumer Price Index	April 30, 2024	May 21, 2024	M	M	M	M	1M	NLT 1M
Revenue, Expenditure, Balance and Composition of Financing[3]– General Government[4]	2024 Q1	May 31, 2024	Q	Q	A/Q	Q	2Q/12M	75D
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	Feb 29, 2024	Apr 17. 2024	M	M	M	M	1M	2M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	2023 Q4	Mar 13, 2024	Q	Q	Q	M	1Q	NLT 1Q
External Current Account Balance	2024 Q1	May 30, 2024	Q	Q	Q	Q	1Q	60D
Exports and Imports of Goods and Services	Mar 31, 2024	May 2, 2024	M	M	M	M	8W	45D
GDP/GNP	2024 Q1	May 31, 2024	Q	Q	Q	Q	1Q	60-75D
Gross External Debt	2023 Q4	Mar 12, 2024	Q	Q	Q	Q	1Q	75D
International Investment Position	2023 Q4	Mar 12, 2024	Q	Q	Q	Q	1Q	75D

[1] Includes reserve assets pledged or otherwise encumbered, as well as net derivative positions.
[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Frequency and timeliness: ("D") daily; ("W") weekly or with a lag of no more than one week after the reference date; ("M") monthly or with lag of no more than one month after the reference date; ("Q") quarterly or with lag of no more than one quarter after the reference date; ("A") annual.; ("SA") semiannual; ("I") irregular; ("NA") not available or not applicable; and ("NLT") not later than.
[7] Encouraged frequency of data and timeliness of reporting under the e-GDDS and required frequency of data and timeliness of reporting under the SDDS and SDDS Plus. Any flexibility options or transition plans used under the SDDS or SDDS Plus are not reflected. For those countries that do not participate in the IMF Data Standards Initiatives, the required frequency and timeliness under the SDDS are shown for New Zealand, and the encouraged frequency and timeliness under the e-GDDS are shown for Eritrea, Nauru, South Sudan, and Turkmenistan.
[8] Based on the information from the Summary of Observance for SDDS and SDDS Plus participants, and the Summary of Dissemination Practices for e-GDDS participants, available from the IMF Dissemination Standards Bulletin Board (https://dsbb.imf.org/). For those countries that do not participate in the Data Standards Initiatives, as well as those that do have a National Data Summary Page, the entries are shown as "...".

Annex XIV. Progress on Past Article IV Policy Recommendations

2023 Article IV Policy Recommendations	Action Taken
Macro Policy Advice	
Monetary Policy: pursue data dependent monetary policy to achieve disinflation.	The BoC pursued an aggressive round of tightening during 2022-23 and quantitative tightening proceeded.
Fiscal Policy: pursue more ambitious fiscal consolidation	Quantitative fiscal objectives were introduced in the 2023 FES. Commitment to these helped justify the need for revenue measures in the 2024 budget.
Housing: implement further policy measures to promote housing affordability, particularly through increased supply; create permanent discussion forum for relevant stakeholders.	In March 2023, the Housing Accelerator Fund, which conditions federal fiscal transfers on provincial and municipal efforts to expand housing, was launched. Provincial and municipal authorities continue, inter alia, to reduce permitting times, rezone for higher density, and mobilize unused government land. CMHC held a national housing conference in March 2024. Also in early 2024, Canada's Housing Plan and the 2024 federal budget presented a comprehensive set of measures to promote additional housing construction.
Policy Toolkit Reforms	
Fiscal framework: adopt a specific anchor, supported by escape clauses that could be triggered in the case of large shocks, as well as an operational rule to determine how to return to the anchor following shocks.	The 2023 FES introduced additional quantitative objectives, including an annual deficit ceiling of 1 percent of GDP from 2026/27.
BoC communication: publish the rate path underpinning the quarterly economic forecast; publish quarterly paths for key variables; including downloadable data appendices to support primary tables and charts; reduce five-year lag with which internal staff forecasts are released publicly; provide ex post evaluations of the Bank's inflation forecast errors on a regular basis.	The BoC started publishing Summary of Governing Council deliberations in early 2023 and now holds press conferences after every scheduled rate decision. The BoC also sometimes presents alternative scenarios in the quarterly Monetary Policy Report (MPR). The BoC is actively considering improvements in monetary policy transparency and communication.
Financial regulation: further strengthen AML/CFT frameworks and deepen understanding of cross-border money-laundering risks and appropriately tailor supervisory tools to address these risks.	Canada has established a federal beneficial ownership registry, with similar efforts also in Quebec (provincial registry established) and in British Columbia (expected in 2025). On risk-based supervision, FINTRAC receives reporting on cross-border payments above specified thresholds, which also forms a feed informing supervisory risk understanding, when relevant.
Climate Policy Priorities	
Continued commitment to mitigation polices, centered around carbon pricing; strengthen design of green subsidies	The authorities remain committed to their ambitious mitigation policies.

Annex XV. State of Progress in the Implementation of 2019 FSAP Key Recommendations[1]

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
Raise required capital for mortgage exposures at both banks and mortgage insurers to fully account for through-the-cycle risks; increase risk-based differentiation in mortgage pricing (OSFI, AMF; DOF)	NT; MT *	OSFI: OSFI's CAR Guideline has been updated and became effective in February 2023. The updated Guideline includes a more risk sensitive approach for risk weighting mortgages under the Standardized Approach (SA) whereby more granularity with respect to LTV ratios has been included. In addition, higher risk mortgages (e.g., those that rely on rental income) will be subject to higher capital requirements. The updated CAR Guideline includes a new requirement that all IRB bank PD models be based on data samples that include a minimum of 10 percent of data from stress periods. In addition, OSFI continues to monitor the risk profiles of federally regulated deposit-taking institutions' RESL lending activities. They are actively assessing the risks posed by variable rate fixed payment mortgages and fixed rate mortgages that will renew with higher payments to determine whether the current capital treatment is fit-for-purpose or revisions are warranted such as a Pillar II add on. Finally, a project to review capital requirements for multi-unit properties within the Mortgage Insurer Capital Adequacy Test (MICAT) that is applicable to all Canadian mortgage insurance companies is ongoing. Currently, OSFI is assessing the impact of various methodologies under consideration through the review of results of a quantitative impact study in which affected mortgage insurers participated. This project anticipates that capital requirements for multi-unit business will rise effective Jan. 2025.	**OSFI**: the requirement that all IRB bank PD models be based on data samples that include a minimum of 10 percent of data from stress periods has made PD estimations, and therefore the capital required for mortgage exposures, more risk sensitive and representative of credit risk through the business cycle. The capital framework for mortgage insurers (i.e., the Mortgage Insurer Capital Adequacy Test (MICAT)) has been updated for IFRS 17.

[1]Prepared by staff based on information reported by the authorities.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
		AMF: The AMF revised its two approaches (Standard Approach (SA) and Internal Ratings Based (IRB) Approach) used to determine risk-weighted assets for mortgage exposures in its Capital Adequacy Requirements Guideline. For the SA approach, a new loan-to-value (LTV) bucket has been introduced for uninsured mortgage loans and more conservative risk-weights must be applied. On the IRB approach, a new "Loss Given Default (LGD) downturn" has been introduced to account for through-the-cycle risks. This new LGD account for possible real estate bubbles in the determination of risk weighted assets on mortgage exposures. All these changes have been published and have been in effect since February 2023.	
Develop the policy framework for managing a housing market downturn (BOC, AMF, BCSC, OSC)	NT *	OSFI: OSFI has introduced a crisis preparedness framework to improve internal preparedness of idiosyncratic events at a DTI. Training was provided in spring 2022 and work continues on the framework to incorporate systemic concerns and overall governance. In January 2023, OSFI launched a public consultation of Guideline B-20 on Residential Mortgage Underwriting Practices and Procedures. OSFI was interested in stakeholder feedback on a set of proposed complementary debt service ability measures designed to better control prudential risks arising from high consumer indebtedness. https://www.osfi-bsif.gc.ca/Eng/osfi-bsif/med/Pages/b2020230112-nr.aspx AMF: The AMF has updated its Residential Hypothecary Lending Guideline twice in the last three years and has publicly expressed its intention to review it in the coming year to ensure its robustness against various housing market downturns, e.g., several successive increases in interest rates. In June 2021, the rate to be used in the calculation of debt	**AMF**: The AMF has updated its Residential Hypothecary Lending Guideline (the equivalent of OSFI'S B-20 Guideline) in February 2024 to introduce expectations for combined loan plans, reverse hypothecary loans and hypothecary loans with shared equity features. It has also publicly expressed its intention to review it in the coming year to ensure its robustness against various housing market downturns, e.g., several successive increases in interest rates. Discussions have occurred with OSFI regarding the timing for the update of our respective guidelines with the intention to maintain a level playing field for participants in the Canadian housing market.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
		service for uninsured mortgages was changed to the greater of the contractual mortgage rate plus 2 percent and a fixed floor rate initially established at 5.25 percent. An annual review of the proposed rates, or as needed, was also introduced. In June 2022, to quickly adapt to market volatility, the reference to fixed rates in the formula for calculating the qualifying rate for uninsured mortgages was removed. The reserve and the floor rate, which until then were fixed values, will now be determined by the AMF in the guideline and should allow for quick adjustments if needed. An expectation was also added to require updates to the residential property value used for the purposes of calculating the loan-to- value ratio (LTV) and determining lending thresholds within the limits of the LTV. The AMF pays close attention to household indebtedness and continues to closely monitor developments in combined loan plans (e.g., home equity lines of credit), reverse mortgages and residential equity mortgages.	
Modernize the systemic risk oversight framework, underpinned by a federal- provincial platform (potentially, HOA) to discuss systemic issues and formulate policy responses, supported by enhanced transparency (HOA, BOC)	NT *	BOC: The Systemic Risk Surveillance Committee (SRSC) continues to meet at a regular frequency to facilitate information sharing and collaboration on the assessment of vulnerabilities and risks to the Canadian financial system. This recently included the formation of an SRSC subgroup on liquidity mismatch in open-ended investment funds and SRSC subgroup on investor demand for housing. The Bank of Canada continues to include a box in its FSR on the activities of the HoA during the prior year	**BOC**: The Systemic Risk Surveillance Committee (SRSC) continues to meet at a regular frequency. The Financial Stability Department also created a new Systemic Risk Analytics team. Its mandate will focus on interconnections and potential sources of contagion across financial system participants (including NBFIs) that can propagate shocks. **HOA**: The SRSC reports to the HoA. The SRSC membership is broader than the HoA to get a wide view on systemic risk. In spring of 2022, the HoA members signed an MoU for the protection of confidential information shared among the HoA. SRSC members who are not also members of the HoA have more recently adhered to the HoA MoU by way of a Letter of Adherence.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
Develop a comprehensive systemic risk surveillance framework, supported by a more unified approach to data collection; address data gaps, particularly related to cross-sectoral exposures, unregulated nonbank financial intermediation, and funding market activities (BOC, competent authorities, governments)	NT/MT *	BOC: The Bank continues to focus SRSC discussion on vulnerabilities or potential vulnerabilities that can be informed by members' data. The current cooperative approach through SRSC delivers some value but faces limitations. In some instances, no SRSC member has access to data required to assess a vulnerability (e.g., high frequency holdings data for some NBFI). Having data distributed across agencies limits cross market analysis and forming a complete view of vulnerabilities (e.g., risk taking may cross cash and derivatives markets). Not all agencies have the same expertise to perform analysis of this data with a view to identifying vulnerabilities. OSFI: OSFI has worked with industry to developing and expanding data sets for key portfolios (including granular reporting on RESL exposures and leveraged lending exposures). Further where other FISC agencies have also expanded or acquired data sets, there is discussion and information sharing between agencies. More broadly, since 2021, OSFI and its partner agencies the Bank of Canada and the Canada Deposit Insurance Corporation have been working on the Data Collection Modernization (DCM) initiative. DCM is a key component of the agencies' efforts to meet their evolving regulatory data requirements, essential for fulfilling their respective mandates and strategic plans. DCM will modernize data collection technology and provide the agencies with access to more timely, granular, and trustworthy data. Improvement in overall data usability will support the agencies in their risk intelligent decision-making. Additional planned benefits include efficiencies, reduced regulatory burden on FRFIs (Federally Regulated Financial Institutions), standardized data definitions, and real-time advanced analytics.	**BoC**: The Bank continues to work cooperatively with asset managers, market infrastructures, and other regulatory agencies to identify data they have that could be helpful for financial system assessments. The Bank has put (and continues to put) in place voluntary data sharing agreements to support data sharing for the benefit of its own analysis. For example: • Staff Analytical Note (SAN) on liquidity risk at Canadian life insurance companies used proprietary data from the Office of the Superintendent of Financial Institutions (OSFI), which included granular information on assets and derivative positions for the three largest OSFI-regulated insurance companies—Manulife, Sun Life and Canada Life. • A forthcoming SAN on the basis trade in Canada and a recent discussion on fixed income market structure at the Canadian Fixed Income Forum (CFIF), all used proprietary transaction-level fixed income futures data provided by the Montreal Exchange. BoC continues to push forward on proof-of-concept analysis in partnership with the OSC and AMF to use OTC derivatives data to measure liquidity risk exposures for certain NBFIs. It is in active discussions with Canadian market infrastructures to obtain additional data on Canadian futures markets given their growing role in fixed income markets. **AMF**: The AMF is currently working (2024) with OSFI in developing and administering to both jurisdictions the SCSE (Standardized Climate Scenario Analysis) in order to obtain insight into the climate-related vulnerabilities affecting the Canadian financial system. The AMF also actively participates at the semi-annual SRSC meetings. Additionally, the AMF is an active member of CUPSA (Credit Union Prudential Supervisory Association) that is working on an effective risk data sharing mechanism with its members. Finally, AMF is finalizing its granular RESL (Real Estate Secured Lending) disclosure similar to OSFI's, BCFSA's and FSRA's returns to fill in the missing data gap and expects to start collecting the data later in 2024.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
Enhance risk monitoring of banks' funding, risk-taking by nonbanks, housing finance- related vulnerabilities, and cross-border and intra-system interconnectedness; carry out Canada-wide surveillance in key sectors such as banking and insurance (BOC lead; HOA, SAC; OSFI, AMF)	NT *	AMF: The AMF ensures that the D-SIFI cooperative under its supervision regularly participates in the BOC's macro stress-test (MST) exercises. The feedback received from the BOC following the MST is a valuable input to the AMF's supervision. Furthermore, the AMF is participating with many other regulators in a climate- related crisis simulation exercise led by the BOC. The AMF actively participates at the semi-annual SRSC meetings. In addition to these initiatives, the AMF is an active member of CUPSA (Credit Union Prudential Supervisory Association), which is working on an effective risk data sharing mechanism with its members. CSA: The CSA actively participates in the Heads of Agencies' Systemic Risk Surveillance Committee (SRSC) and relevant SRSC subgroup.	**BoC** has operationalized new bank returns (e.g., updated EB/ET) that have cross sectoral exposures, and Statcan has made progress on their "from-whom-to-whom" financial accounts. OSC has made their investment fund survey a regular data collection exercise which they are now sharing with BoC and the BoC is working on getting derivatives data from OSC/CIRO via an MOU. On Housing related vulnerabilities the BoC has matched mortgage underwriting data to credit bureau data enabling monitoring of mortgage holders non-mortgage debt such as credit cards and autoloans. **CSA** (Systemic Risk Committee): The CSA actively participates in the SRSC and relevant SRSC subgroups that are set-up when required to investigate further specific risk topics.
Strengthen oversight of large public pension funds, and increase transparency of their financial disclosures (DOF, provincial governments)	NT	There continue to be plans to consider whether enhanced oversight of large public pension funds and increased transparency of their financial disclosures is necessary. There is no timeline for this initiative to date.	No updates.
Strengthen autonomy and governance of financial sector authorities, including BOC and	MT	DOF: OSFI has the required autonomy and governance to carry out its mandate. OSFI's guidelines are enforceable in practice as regulated entities recognize that OSFI has intervention powers that are legally enforceable. BoC: The BOC and provincial authorities (AMF, BCSC, OSC) continue to co-operate effectively in oversight of systemically	OSFI: No further legislative work is being undertaken on this point at this time. **AMF**: Through the establishment of MoUs with BoC and CDIC in 2018, the AMF continue to strengthen its relations with both organizations by holding technical and/or quarterly meetings to

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
OSFI (powers), and FICOM (overall); clarify the roles and responsibilities of the authorities in charge of overseeing systemically important FMIs (DOF, provincial governments; BOC; AMF, BCSC, OSC)		important FMIs. The current arrangements, with overlapping responsibilities, reflect the federal-provincial division of powers. Therefore, no changes were made in response to the FSAP recommendation. AMF: The MoUs with BoC and CDIC signed in 2018 are fully operational and effective. The AMF is holding technical and quarterly meetings with both organizations to exchange on different subjects of interest. The AMF also holds meetings on a regular basis with the Québec Minister of Finance (MFQ) to discuss topics related to the resolution framework, including the resolution plan for Desjardins Group, the governance (formalization of the Resolution Board), the funding (establishment of backstop funding arrangements), etc. A joint work plan is being implemented to follow up on the aspects requiring further work and improvements. CSA: The CSA and BoC continue to coordinate and cooperate with each other to ensure at the Provincial level (CSA) and Federal level (BoC) each continues to meet its mandate. This coordination and cooperation were documented through the establishment of an MOU "Respecting the Oversight of Certain Clearing and Settlement Systems" between certain CSA jurisdictions (AMF, BCSC and OSC) and the BoC in 2014, with a main objective to ensure that they promote the safety and efficiency of the clearing and settlement systems in a consistent and coordinated fashion. Further to the existing MOU, the BOC and the CSA entered into a Memorandum of Understanding Respecting the Resolution of Certain Clearing and Settlement Systems among the BOC, OSC, AMF, BCSC (the MoU), effective January 13, 2022. The CSA and BOC met as frequently as needed at the onset of the covid-19 pandemic to effectively identify and address emerging issues and continue to meet frequently (at least bi-weekly) to discuss all oversight matters for those FMIs they mutually oversee in an effort to ensure consistency in approach to regulation wherever possible.	exchange on different subjects of interest. Meetings on a regular basis with the Québec Minister of Finance (MFQ) were held to discuss topics related to the resolution framework. Particularly in recent months, discussions have focused on documentation and processes linked to the operationalization of the Resolution Board, which was formalized in January 2024. The first official meeting was held in March 2024 and the next is scheduled for May 2024.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
Complete the Cooperative Capital Markets Regulatory System initiative (DOF, provincial governments)	MT	DOF: Despite the Capital Markets Authority Implementation Office having paused its operations in March 2021, and the federal Canadian Securities Transition Office having ceased operations in March 2022, the Government of Canada remains committed to working with participating provinces and territories to implement the Cooperative System, which would strengthen investor protection and enforcement, reduce costs for Canadian companies, and support financial stability.CSA: Work has ceased on the Capital Markets Regulatory Authority and no future progress is expected. The CSA continues its work harmonizing the regulation of Canadian financial markets. In its 2022-2025 Business Plan, the CSA undertook to continue enhancing its collaboration with federal and provincial agencies on the monitoring of systemic risks, in support of the development of mitigation strategies, as well as on enforcement matters to strengthen the detection, prosecution and deterrence of white-collar crime and securities law violations.	No updates.
Enhance inter-agency cooperation, particularly between federal and provincial authorities, with additional MoUs (OSFI, AMF, other relevant provincial authorities)	NT *	OSFI: The Heads of Agencies Committee (HoA) meets regularly to share information and perspectives on emerging issues, trends and market developments. Terms of Reference for the HoA are at https://www.bankofcanada.ca/core-functions/financial-system/financial-system-committees/heads-regulatory-agencies-terms-of-reference/ The committee is supported by sub-Heads of Agencies (sub HoA) and Systemic Risk Surveillance Committee (SRSC). AMF: The AMF participates in the Heads of Agencies (HoA) quarterly meetings. The AMF also meets regularly with other relevant provincial authorities though its membership in the Credit Union Prudential Supervisors Association (CUPSA), and in the Canadian Consumer Protection for Financial Institution Failures. As part of the MoUs signed in 2018, the AMF holds technical and quarterly meetings with both federal organizations, BoC and CDIC. Regarding the potential MoU with OSFI, discussions have resumed after they were put on hold for two years during the pandemic. The discussions are now	**OSFI** has finalized an MoU on information sharing among federal and provincial members of the HoA committee. More frequent and structured contacts occur with provincial deposit-taking and insurance regulatory associations (CUPSA/CCIR). OSFI has a recurring engagement with Quebec's financial services regulator (AMF) and has finalized exchange plan to map out various annual discussions. Similar process ongoing with Ontario and BC. In conversation with several provincial regulators regarding increased information sharing. OSFI is currently heavily involved with the provincial credit union regulators (CUPSA) as well as provincial insurance regulators (CCIR) to share practices and various regulatory and policy work. A team within OSFI is now dedicated to engaging with provinces on regulatory, policy and supervisory matters.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
		between the legal departments of both organizations, which will assess the protection of the confidentiality of the information that would be shared through the MoU. CSA: In spring of 2022, the Heads of Agencies (HoA) members signed an MoU for the protection of confidential information shared among the HoA. There is an agreement in principle from those Systemic Risk Surveillance Committee (SRSC) members that are not part of the HoA to adhere to the MoU.	**BoC**: An MoU for the protection of confidential information is in place across all agencies participating in the HoA and the SRSC. **AMF**: Discussions have resumed with OSFI and are currently taking place between the legal departments of the two organizations to resolve the issue of protecting the confidentiality of information that will be shared under the MOU.
Address shortcomings in the regulatory and supervisory frameworks related to credit risk of mortgage exposures; adopt a common loan forbearance framework in all jurisdictions (OSFI, AMF, other provincial credit union supervisors)	NT	OSFI: On June 28, 2022, OSFI issued a supplementary Advisory to Guideline B-20 that clarified treatment of certain innovative real estate secured lending products. Among other things, this guidance reinforced LTV limits for combined mortgage-HELOC loan plans (CLPs) and reverse mortgages. On January 12, 2023, OSFI launched an initial consultation on Guideline B-20 with a focus on debt serviceability measures. The B-20 review will continue over 2023-24. AMF: The AMF has been working on a Non-Performing Loans and Forbearance Guideline. It is expected to come into force in December 2023.	**OSFI** does not intend to pursue the recommendation to adopt a common framework to monitor forborne exposures in all jurisdictions. The CAR Guideline has been updated to include Basel III reforms, effective fiscal Q2:2023. Updates included a revised capital treatment of mortgages backed by private mortgage insurers (PMIs). The revised treatment has generally increased capital requirements for these mortgages and has better aligned the capital treatment with the structure of the government guarantee provided to PMIs. Effective fiscal Q1:2024, the CAR and MICAT guidelines are updated to include higher capital requirements for lenders and mortgage insurers, respectively, to better align with risks associated with growing mortgage balances due to increased interest rates. This situation, sometimes referred to as negative amortization, may occur in an increasing interest rate environment when fixed payments on a variable interest rate mortgage are insufficient to cover the increased interest component. **AMF**: A new guideline named Guideline on the management of expected credit losses is in progress. This guideline will be dealing with forbearance. in progress. The public consultation on this new guideline has ended on April 29th. The AMF plans to publish the

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
			final version by June 2024. The guideline will notably address sound methods regarding expected credit losses, the rating of this risk, the adequacy of capital, and the validation of models. The internal rating approach and the standardized approach will be discussed in the guideline. The AMF has updated its Residential Hypothecary Lending Guideline (the equivalent of OSFI'S B-20 Guideline) in February 2024 to introduce expectations for combined loan plans, reverse hypothecary loans and hypothecary loans with shared equity features.
Strengthen legal foundation underpinning insurance group-wide supervision; apply the regulatory framework more consistently to group-side supervision (OSFI, AMF; DOF, Québec government)	NT	AMF: Legislative amendments are required to meet this recommendation. The discussions with the Québec Ministry of Finance are still ongoing about possible legislative amendments to address AMF's lack of legal powers over unregulated holding companies and to enhance its group-wide supervision capability.	**OSFI**: Undertakings addressing group-wide supervision formed a component of the annual supervisory letters for the two IAIGs with unregulated holding companies. For P&C insurance, undertakings are also being strengthened to ensure that group-wide capital calculations under the MCT (Minimum Capital Test) are consistent across supervision.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
Complete reforms in the areas of OTC derivatives and duties towards clients; increase the focus of oversight on high-impact firms; ensure the capacity to handle market- wide stress (CSA, relevant provincial governments)	NT	The CSA (Canadian Securities Administrators, Canada's umbrella organization of provincial and territorial securities regulators) has developed a Business Conduct Rule and published it for a third comment period in January 2022, and in April 2018 published for consultation a Registration Rule to help protect participants in the OTC derivatives markets. The CSA is focusing on completing the Business Conduct rule, which is scheduled for the summer of 2023. The Registration rule will be the next priority. Amendments to the Trade Reporting Rules are proposed to update trade repository governance, risk and operational requirements and to better align with Principles for Financial Market Infrastructures. The CSA will work to finalize the rule by the end of 2023. Mandatory Clearing Rules have been in effect since September 1, 2022. <u>Client Focused Reform (CFR)</u> The reforms demonstrate a shared commitment by the CSA and the SROs to changes that require registrants to promote the best interests of clients and put clients' interests first. CFRs are relevant to all categories of registered dealers and registered advisers, with some application to investment fund managers, and require that registrants establish a process for identifying material conflicts of interest and implement the KYC, KYP, suitability, and relationship disclosure reforms. The CFR conflicts of interest requirements came into force on June 30, 2021, and the remaining requirements came into force on December 31, 2021. <u>Oversight of high-impact firms</u> The CSA stated that their oversight of impact firms is sufficient, but they will continue to consider ways to improve their processes and oversight of these firms. Some jurisdictions (Ontario) already have a formal process for determining which are high impact firms while other jurisdictions have informal processes that the Committee is finalizing.	**CSA (Derivatives Committee):** ***Business Conduct Rule*:** On September 28, 2023, the securities regulatory authorities of Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador, Nunavut, Northwest Territories and Yukon adopted Multilateral Instrument 93-101 *Derivatives: Business Conduct* and a companion policy, setting out a comprehensive regime for regulating the business conduct of dealers and advisers in the OTC derivatives market. The rule will come into force on September 28, 2024. It establishes fundamental obligations for dealers and advisers that are aligned with international standards and include requirements related to fair dealing, conflicts of interest, suitability, reporting non-compliance, and recordkeeping. The British Columbia Securities Commission intends to adopt a substantially similar rule at a later date, at which time Multilateral Instrument 93-101 is expected to be converted to a National Instrument. The CSA have developed the Business Conduct Rule to help protect participants in the OTC derivatives markets, reduce risks including potential systemic risk, improve transparency, increase accountability and promote responsible business conduct in the OTC derivatives markets. This rule meets IOSCO's international standards and creates a derivatives dealer regime that is consistent with the regulatory approach taken by most IOSCO jurisdictions with active derivatives markets (https://www.iosco.org/library/pubdocs/pdf/IOSCOPD497.pdf (DMI Implementation Review)). ***Trade Reporting Rules:*** CSA members are preparing for adoption rule amendments regarding trade repositories and OTC derivatives data reporting. The proposed amendments would update trade repository governance, risk and operational requirements to better align with Principles for Financial Market Infrastructures standards and address comments that arose in connection with a CPMI-IOSCO

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
		Market Disruption Coordination Derivatives The reforms on the capacity to handle market-wide stress and market disruption are complete. The CSA Market Disruption Plan was first tested by CSA staff on September 18, 2019, and more recently on October 26, 2021. The September 2019 test focused on the dissemination of information and responses amongst applicable CSA staff, while the October 2021 test also facilitated testing of communication and coordination with other regulators and financial market infrastructures. Both tests were successful: CSA participants executed the Plan as expected and coordination and communication were efficient and effective. Planning has started on the 2023 test of the CSA Market Disruption Plan. The test will take place the first week of December 2023. From a global perspective, a number of CSA jurisdictions as well as the Bank of Canada participated in the Quantum Dawn V cybersecurity exercise, which is the biennial drill held by the Securities Industry and Financial Markets Association (SIFMA). SIFMA's 2019 test invited Canadian capital market stakeholders to participate. CSA staff participated as observers in SIFMA's November 2021 exercise.	assessment that addressed the implementation of these standards. The amendments would also, among other things, harmonize the data elements that are required to be reported with technical guidance developed by CPMI-IOSCO, in addition to implementing universal transaction identifiers, universal product identifiers, validation and verification of data. On June 9, 2022, the CSA published the TR rules for comment and is intending to publish the rules in final form in the Spring of 2024. ***Mandatory Clearing Rules*:** The CSA has conducted research to update the list of OTC derivatives which should be mandatory cleared by a central counterparty. The CSA plans to publish for comments amendments to NI *94-101 Mandatory Central Counterparty Clearing of Derivatives* in the summer of 2024. ***Margin for uncleared derivatives:*** The CSA has assessed that existing margin rules for uncleared derivatives is sufficient to address systemic risk concerns related to this activity in Canada. However, the CSA continues to monitor OTC derivatives markets for instances of trading activity that fall outside the scope of existing rules and determine whether additional regulation is required. **CSA (Client focused reforms/ duties towards clients):** The Client Focused Reforms (CFRs) are relevant to all categories of registered dealer and registered adviser, with some application to investment fund managers. Registrants are required to have a process in place for identifying material conflicts of interest that arise at both firm and individual registrant levels, including those resulting from compensation arrangements and incentive practices, and ensuring that those material conflicts of interest are addressed in the best interests of their clients. They are also required to have implemented the KYC, KYP, suitability

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
			determination and relationship disclosure information reforms. Among other things, this includes having a framework to ensure that clients' interests are put first when making suitability determinations. Firms are required to operationalize changes in the areas of KYC and KYP to support the enhanced suitability determination requirements, to ensure that sufficient information is collected about a client, and that products and services made available to clients are assessed, approved and monitored for significant changes. One of the priorities is ongoing compliance and oversight related to the implementation of the CFRs. On August 3, 2023, the CSA and the Canadian Investment Regulatory Organization (CIRO) published a joint notice summarizing the findings of our review of firms' conflicts of interest practices and providing additional guidance including suggested practices related to the conflicts of interest requirements. The CSA and CIRO are currently conducting reviews to test for compliance with the KYC, KYP and suitability determination requirements. **CSA (Oversight of high-impact firms):** The members of the CSA Compliance Committee are working to align and coordinate the registrant's reviews with all jurisdictions by sharing examination schedules on a monthly basis. Committee members also exchange information on their common registrants (with a presence in more than one province) monthly in order to better coordinate efforts. The Committee is working on a CSA approach to high-impact firms because some jurisdictions (Ontario) already have a formal process for determining which are-high impact firms while other jurisdictions have informal processes that the Committee is finalizing. The Committeee does not foresee any"prob'ems addressing this recommendation.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
			CSA (Capacity to handle market-wide stress / Market Disruption Coordination Group): The CSA also remains focused on coordinating its response to a market disruption that impacts the ability of regulated entities, such as marketplaces, clearing agencies and trade repositories to operate in a regular manner. The CSA Market Disruption Plan (the Plan) sets out guidelines to address circumstances in which there may not be fair and efficient markets due to a market-wide disruption, for instance a considerable disruption to the ability of some or all market participants to be able to promptly and reliably trade, clear or settle transactions. Incidents that may rise to the level of a market-wide disruption include ones that stem from a large-scale cybersecurity incident and contagion events. The CSA has developed its Plan in order to coordinate the CSA's response to a market disruption and has been testing it with its regulatory partners periodically. The CSA Market Disruption Plan was first tested by CSA staff in September 2019 and more recently in December 2023. The October 2021 and December 2023 tests were conducted during CIRO's bi-annual industry-wide business continuity planning (BCP) test. By way of background, National Instrument 21-101 Marketplace Operation, requires industry-wide BCP tests to be conducted by CIRO as the regulation services provider. CIRO BCP tests have taken place bi-annually for a number of years. For the October 2021 and December 2023 tests, CSA staff coordinated with CIRO to develop the Incident Response Plan (IRP) component that facilitated the testing of the CSA Plan, which included communicating and coordinating with other regulators and financial market infrastructures during a simulated market disruption. Both the October 2021 and December 2023 tests were successful: participants executed the Plan as expected and coordination and communication were efficient and effective.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
Task the SAC with responsibility of overseeing Canada-wide crisis preparedness, thus performing the roles of the coordination body at the federal level and the federal coordinator with key provincial authorities; strengthen CDIC's operational independence (MoF; SAC; DOF)	NT *	DOF: The agencies continue to develop and maintain inter-agency contingency planning and crisis management frameworks. Conducting regular tabletop exercises to test implement coordinated crisis preparedness measures aimed at addressing stress events under different scenarios.	No updates
Expand recovery planning to all deposit-taking institutions and resolution planning to those performing critical functions; further develop the valuation framework for compensation; adopt depositor preference; strengthen resolution powers (OSFI; AMF and CDIC; DOF and Québec government)	NT *	OSFI: All D-SIBs must have recovery plans, and OSFI uses a range of criteria to determine which other banks must prepare recovery plans. AMF: Recovery and resolution plans for Desjardins Group, the only Québec-chartered financial institution designated as a D-SIFI by the AMF, are continually updated by Desjardins Group and the AMF. Regarding the implementation of a valuation framework, the AMF is assisted by an external firm. To date, two of the five deliverables planned over the two-year period (summer 2021/23) have been finalized, namely the "Methodologies and Approaches" adapted to a cooperative structure, as well as the "Valuation Process" that will be part of the playbooks. The third deliverable on the "Identification of required financial data, or any other information needed to perform the valuations" should be approved by June 2023. The introduction of the depositor preference is under the federal purview. As part of the MoU with CDIC, the AMF raised this topic at a quarterly meeting (November 24, 2022) and intends to pursue discussions at a technical meeting to know more about the federal government's intentions.	**OSFI**: Based on the recent review of SMSB recovery plan criteria as well as OSFI's Supervision Risk Tolerance Framework, OSFI has concluded that comprehensive recovery planning requirements, that currently apply to D-SIB, will apply to financial institutions (on a proportional basis) based on their systemic importance and OSFI's internal criteria of impact and substitutability. Therefore, for financial institutions meeting OSFI's impact and substitutability thresholds, recovery plan requirements will apply if they are not staged (i.e., safety and soundness concerns do not exist) and will apply to those that are staged/have solvency concerns (i.e., safety and soundness concerns exist). Additionally, for those financial institutions that do not meet the systemic importance criteria of impact and substitutability and are not required to prepare and submit recovery plans, OSFI has prudential controls in place which requires them to prepare tactical "recovery plans" for critical areas in compliance with OSFI's Guidelines (e.g., Guideline B-6 - Liquidity Principles (osfi-bsif.gc.ca); Guideline E-18 - Stress Testing (osfi-bsif.gc.ca), and Guideline E-21 - Operational Risk Management (osfi-bsif.gc.ca)

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
		With respect to strengthening resolution powers, a legislative inventory was shared with the Québec Ministry of Finance in the summer 2022. A formal power to require changes to improve the financial institution's resolvability is part of the request. Given the absence of this power and as an alternative only, the AMF could benefit from its integrated structure and issue written instructions to the Federation (Desjardins) if it believes there may be issues in implementing the recovery plan that could also be considered as impediments in resolution. As a result of a legislative amendment passed in December 2021 to harmonize the AMF's powers with those applicable at the federal level, the AMF no longer has the power to write down shares and liabilities. The Resolution Board still has to be formalized. Despite this situation, the operating rules of the Board, its governance charter as well as a framework for coordination between the AMF and the Board during resolution planning and management are being developed. Discussions are still underway with the Québec ministry of Finance to formalize backstop funding arrangements.	**AMF**: Recovery and resolution plans for Desjardins Group, the only Québec-chartered financial institution designated as a D-SIFI by the AMF, are continually updated by Desjardins Group and the AMF. The AMF has been working on several elements to strengthen and operationalize its resolution framework. The two-year project on the implementation of a valuation framework for resolution applicable to a cooperative structure was finalized in November 2023. Work on depositor preference must be carried out in conjunction with federal agencies, since the legislation (Winding-Up and Restructuring Act) enabling the introduction of depositor preference falls under federal jurisdiction. Discussions with CDIC on this subject did not result in concrete actions. Overall, the AMF believes that its legal framework includes the necessary resolution powers, as recommended by the FSB. Regarding resolvability, it has been discussed informally with the MFQ at various meetings. As an integrated regulator, the AMF's current powers give it considerable flexibility. They cover a broad spectrum of appropriate measures that could potentially be requested of Desjardins Group in order, among other things, to remedy significant obstacles that would limit its resolvability. As part of its work, the AMF will validate the practical limits of these powers. Depending on the results, the AMF may consider the possibility of requesting legislative modifications to the MFQ. With the appointment of the 3rd member by the Québec Minister of Finance, the Resolution Board has been in operation since January 2024. Work is underway to formalize the backup funding.

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
Operationalize emergency lending assistance (ELA) with key provinces; improve testing to ensure smooth ELA operations (BOC; British Columbia, Ontario and Québec governments)	NT *	The Bank undertook its first ELA test draw with a provincially regulated financial institution in 2022. It focused on the institution's legal and operational preparedness to provide collateral and receive/repay the funds. Building on information-sharing MoUs set up previously (QC: 2018; BC and ON: 2020), the Bank has maintained ongoing engagement with provincial regulators to help ensure that they can make informed lending decisions should the need for ELA arise. (#) The Bank is also actively engaged with ON and BC to finalize indemnity agreements with these provinces, a condition for PRFIs to be eligible for ELA. AMF: The third iteration of the Resolution plan for Desjardins Group and the 2022/26 work plan were submitted to the BOC in June 2022. Among other things, the work plan calls for meetings between the AMF and the BOC to identify the work that needs to be done to operationalize the ELA, such as setting up an effective process and obtaining or establishing the legal and financial documentation for the ELA. A simulation exercise of ELA was conducted by the Bank of Canada and Desjardins Group in October 2022. To obtain a very large amount through ELA, certain preparatory measures could be implemented to make some significant assets available to be pledged quickly. The subject is currently being discussed with the Desjardins Group. The AMF intends to harmonize the implementation of these preparatory measures for both the recovery and the resolution plans. (#): Similar engagement also continues with other provinces with whom they have information- sharing MoUs (i.e., AB, SK, MB, NS, NB).	**BOC**: The Bank continues to be engaged with provinces that have expressed interest in signing an indemnity agreement, a condition for PRFIs to be eligible for ELA. Bill C-59 completed its second reading in the Senate by end May, and upon receiving Royal Assent (and coming into force) would allow provincially regulated credit unions to be Payments Canada members. BoC can only provide ELA to Payments Canada members, so the change to expand access is expected provide a stronger rationale for provincial governments to put in place an indemnity agreement. **AMF**: Following the simulation exercise of ELA conducted by BoC and Desjardins Group in June 2022, preparatory measures are being implemented, including the ones to ensure significant assets would be available to be pledged quickly. The AMF and Desjardins Group are working on setting up the operational process, the legal documentation, the required authorizations, and so on. The operationalization of the ELA was also discussed with the BoC. ELA testing exercises involving the AMF should be held when the progress of the work will be judged appropriate

Recommendations	Timeframe	Progress by June 2023	Progress by May 2024
Further develop contingency plans for market-wide liquidity provision, particularly intervention in securities markets and foreign-currency liquidity provision (BOC; DOF, provincial governments)	NT *	BOC: The BOC is routinely involved in testing Swapline facilities for foreign vs domestic currency liquidity with several major central banks. These tests include trade confirmation, settlement, and reversal of foreign vs domestic currency flows at small nominal amounts. The Bank has also drafted program terms and conditions for a US dollar repo facility should such a facility need to be implemented.	
Selected Recommendations. Technical Note. Systemic Risk Oversight and Macroprudential Policy			
Expand the scope of macroprudential toolkit to address risks that may originate from lending by nonbank financial institutions and to limit policy leakages (DOF)	I *	DOF: No update available. The majority of lending activity is federally and provincially regulated, and Statistics Canada actively tracks the size of the non-prudentially regulated sector.	
Develop a set of prudential instruments to deal with emerging risks stemming from home equity lines of credit and other risky mortgage products (DOF, OSFI)	I *	OSFI: On June 28, 2022, OSFI issued a supplementary Advisory to Guideline B-20 that clarified treatment of certain innovative real estate secured lending products. Among other things, this guidance reinforced LTV limits for combined mortgage-HELOC loan plans (CLPs) and reverse mortgages. On January 12, 2023, OSFI launched an initial consultation on Guideline B-20 with a focus on debt serviceability measures. The B-20 review will continue over 2023-24. AMF: In July 2022, the AMF publicly expressed its intention to review its Residential Hypothecary Lending Guideline in the coming year to include expectations dedicated to the sound management of home equity lines of credit and other risky mortgage products by financial institutions.	

Selected Recommendations. Technical Note. Systemic Risk Oversight and Macroprudential Policy			
Expand the application of the cyclical capital requirements to all other deposit-taking institutions (OSFI, provincial supervisors of deposit taking institutions)	I *	AMF: No change.	**BOC**: The BoC is undertaking an eligibility and operational review for both CTRF and STLF liquidity facilities, including looking at ways to expand eligibility while streamlining the operational process. This includes the implementation of a new collateral management system that will allow for increased automation and scalability.
Note: Institutions in the parenthesis are the agencies with leading responsibilities. The * denotes macro-critical. In terms of the timeframe, I, NT and MT stand for immediate (within one year), near-term (within one year) and medium-term (within 2–3 years).			

INTERNATIONAL MONETARY FUND

CANADA

STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

June 26, 2024

Prepared By

The Western Hemisphere Department
(in consultation with other departments)

CONTENTS

FUND RELATIONS

(As of June 3, 2024)

Membership Status: Joined 12/27/1945; Article VIII

General Resources Account:	SDR Million	Percent of Quota
Quota	11,023.90	100.00
Fund holdings of currency	8,318.96	75.46
Reserve Tranche Position	2,715.54	24.63
Lending to the Fund[1]		

SDR Department:	SDR Million	Percent of Allocation
Net cumulative allocation	16,553.99	100.00
Holdings	16,838.47	101.72

Outstanding Purchases and Loans: None.

Latest Financial Arrangements: None.

Projected Obligations to Fund:

(SDR Million; based on existing use of resources and present holdings of SDRs):

			Forthcoming		
	2023	2024	2025	2026	2027
Principal					
Charges/Interest		0.13	0.13	0.13	0.13
Total		0.13	0.13	0.13	0.13

Implementation of HIPC Initiative: Not Applicable.

Implementation of Multilateral Debt Relief Initiative (MDRI): Not Applicable.

Implementation of Post-Catastrophe Debt Relief (PCDR): Not Applicable.

Exchange Rate Arrangements: The authorities maintain a "free floating" exchange rate regime. The Canadian authorities do not maintain margins with respect to exchange transactions. However, the authorities may intervene to maintain orderly conditions in the exchange market. There are no taxes

[1] The NAB amount outstanding was zero as of April 30, 2024 while the amount agreed remained unchanged at 7,747.42 (SDRs in millions).

or subsidies on purchases or sales of foreign exchange. Canada has accepted the obligations under Article VIII, Sections 2(a), 3, and 4 of the IMF's Articles of Agreement, and maintains an exchange system that is free of restrictions on the making of payments and transfers for current international transactions and multiple currency practices. Canada maintains exchange restrictions for security reasons, based on UN Security Council Resolutions, that have been notified to the Fund for approval (most recently in June 10, 2014) under the procedures set forth in Executive Board Decision No. 144–(52/51).

Last Article IV Consultation: The Staff Report for the 2023 consultation with Canada was considered by the Executive Board on a lapse-of-time basis (IMF Country Report No. 2023/286). Canada is on a 12-month consultation cycle. The Financial Sector Assessment Program (FSAP) took place in 2000, was updated in 2008, 2014, and 2019 and will be updated again in 2025.

2024 Article IV Consultation: Discussions took place both in Ottawa and remotely via videoconference during May 5–June 5, 2024. The team comprised K. Mathai (head) A. Aghababyan, F. Díez, I. Gallardo, M. Ghazanchyan, S. Lizarazo Ruiz, L. Liu, F. Lutz, Y. Yang (all WHD), C. Ferrero (FIN), P. Grippa (MCM), and J. Quast (STA), with support from C. El Khoury, I. Thomas, and Y. Deng (all LEG) on AML/CFT issues. P. Jennings, R. Cunningham, and M. Villeneuve (all OED) joined many of the mission's meetings, and R. Valdés and L. Cubeddu (WHD) participated in the concluding discussions. The mission met with Deputy Prime Minister and Minister of Finance Freeland, Governor Macklem, Deputy Minister Forbes, Deputy Governors Gravelle, Kozicki, Mendes, and Vincent, and other senior officials from the federal government, provincial governments, the Bank of Canada, and regulatory bodies. The mission also met representatives from the financial and business sectors, academics, and think-tank experts. The concluding statement was issued on June 11, 2024.

Technical Assistance: Not Applicable.

Resident Representative: Not Applicable.

INTERNATIONAL MONETARY FUND

CANADA

STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION—SUPPLEMENTARY INFORMATION

July 8, 2024

Prepared By Western Hemisphere Department

This statement provides information that has become available since the staff report was issued to the Executive Board on June 26, 2024. The thrust of the staff appraisal remains unchanged.

1. Recent data suggest some softening in the labor market. The unemployment rate rose to 6.4 percent in June, from 6.2 percent in May, despite a mild decline in the labor force participation rate. Meanwhile, average hourly wage growth accelerated to 5.4 percent y/y, from 5.1 percent in May, although this largely reflected base effects. Data are also showing declining vacancies, with the vacancy-unemployment ratio dropping to 0.4. Against this background, market odds are now slightly better than even that the Bank of Canada will cut rates again at its July 24th meeting. Next week's June CPI report and business and consumer surveys will be watched closely.

2. On July 2, the authorities launched a 30-day public consultation on potential policy responses to what they deem "unfair Chinese trade practices" regarding electric vehicles (EVs). They allege an "intentional, state-directed policy of overcapacity and lack of rigorous labor and environmental standards" leading to excess global supply and reduced profitability for EV producers in Canada and elsewhere. They also highlight possible cyber risks and privacy concerns stemming from the technology in Chinese EVs and hybrids. The consultation notice seeks public input on policy options including: (i) imposing a surtax on Chinese EVs and hybrids (under Section 53 of the Customs Tariff); (ii) excluding Chinese EVs from eligibility for point-of-sale incentive programs; (iii) using the *Investment Canada Act* to impose "further policy guidance, monitoring, or restrictions" on Chinese investment in the Canadian EV sector; (iv) restricting the use of Chinese IT by Canadian auto manufacturers; and (v) protecting Canada's broader EV supply chains, including steel and aluminum. Any decisions will be taken only after the consultation period.

3. Canada's announcement comes against the backdrop of related actions by the United States and European Union. On May 14, the United States announced that it would raise Section 301 tariffs on Chinese EVs and some hybrids to 100 percent effective August 1. And on June 12, the European Commission announced provisional countervailing duties of up to 38 percent starting July 4, to be finalized later in the year. The Canadian authorities have expressed concern that these measures could lead to a diversion of Chinese exports from those markets to Canada, which they see as further justification for a possible Canadian response.

4. The announcement was also made in the context of a sharp increase in Chinese imports in the strategically important EV sector. Chinese EV imports rose from only Can$0.8 million (0.1 percent of all EV imports) in 2018 to around Can$2.2 billion (23.1 percent of all EV imports, but still just 0.2 percent of total Canadian imports) in 2023, in part reflecting Tesla's decision to move some of its production to China. Given consumers' rapid shift to EVs and hybrids (which already account for nearly 20 percent of new auto registrations) and Canada's longstanding auto industry, skilled labor force, and endowment of critical minerals, the EV sector is one of great strategic importance to the authorities. New sales of internal-combustion vehicles will be phased out by 2035, and a suite of incentives to support the green transition were introduced following subsidies in the US Inflation Reduction Act. Most recently, in the 2024 budget, the government announced a 10 percent investment tax credit to incentivize investments across major segments of the EV supply chain.[1]

5. As highlighted in the staff appraisal, any possible trade actions need to be carefully designed. In particular, any action should follow the general principles of being procedurally and methodologically transparent, evidence-based, and WTO-consistent, and should be followed by intensified dialogue on cooperative solutions to address underlying concerns. Furthermore, the implications of such actions for the cost of achieving Canada's emissions-reduction goals will also need to be considered carefully.

[1] Production subsidies have also been offered to some major automakers to establish EV battery factories in Canada.