INTERNATIONAL MONETARY FUND

IMF Country Report No. 18/221

# CANADA

July 2018

## 2018 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STAFF STATEMENT

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 2018 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 13, 2018 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 13, 2018, following discussions that ended on June 4, 2018, 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 28, 2018.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Staff Representative** on the Canada Executive Board Meeting.

The documents listed below have been or will be separately released.

Selected Issues

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INTERNATIONAL MONETARY FUND

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FOR IMMEDIATE RELEASE
July 16, 2018

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Washington, D. C. 20431 USA

**IMF Executive Board Concludes 2018 Article IV Consultation with Canada**

On July 13, 2018, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Canada. The 2018 Article IV consultation centered on policies to secure stronger, inclusive, and self-sustaining growth.

The economy has continued to perform well. Growth has been robust and the housing market is finally showing signs of cooling down in response to several rounds of macroprudential measures and monetary tightening. However, economic anxiety is high due to trade tensions, uncertainty about the outcome of NAFTA negotiations, and the impact of the U.S Tax Cuts and Jobs Act on Canada's medium-term competitiveness.

The positive momentum in the economy is expected to continue in the near term, with real GDP moderating to a more sustainable growth rate of about 2 percent in 2018 and 2019. A fast-growing U.S. economy will provide a near term boost to Canadian exports and contribute to a narrowing of the current account deficit. However, over the medium-term, weak external competitiveness, sluggish labor productivity growth, and population aging are expected to limit potential growth to about 1¾ percent, significantly lower than its historical average.

The outlook is subject to significant risks, both domestic and external. A key domestic risk is a sharp correction in the housing market. In this context, risks to financial stability and growth could emerge, if the house price correction is accompanied by a rise in unemployment and sharp contraction in private consumption. External risks are now more acute than in the past and stem from sources that can be mutually reinforcing—including the impact of U.S. tax reform on Canada's medium-term competitiveness, uncertainty related to NAFTA negotiations, and the prospect of further escalation in trade tensions. Policy choices will be crucial in shaping the outlook and mitigating risks.

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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.

**Executive Board Assessment**[2]

Directors commended the impressive performance of the Canadian economy in 2017. They noted that the growth momentum is expected to continue in the near term, but that the outlook is subject to significant downside risks, including from uncertainties related to trade and the impact of recent U.S. tax changes. Directors urged the authorities to rebuild policy buffers and forge ahead with reforms to boost competitiveness and productivity.

With output above potential, Directors agreed that the focus now should be on rebuilding fiscal buffers. They urged provinces that are running high deficits or debt to take the lead in making the necessary fiscal adjustment. They welcomed the federal government's commitment to set federal debt-to-GDP on a declining path, and broadly noted that the planned consolidation could be frontloaded to take advantage of the favorable performance of the economy. Directors agreed that the authorities could strengthen the credibility of their fiscal framework by explicitly incorporating fiscal rules, although a few Directors questioned whether now is the right timing, as they saw a need for fiscal policy to be able to respond nimbly in the current conjuncture. In the event downside risks materialize, automatic stabilizers should be allowed to operate fully and discretionary measures could be deployed.

Directors noted that the overall impact of the recent U.S. tax reform needs to be fully studied and assessed. In this context, many Directors considered that a review of Canada's tax system could usefully evaluate the scope for improving efficiency while maintaining competitiveness. Directors stressed the need to avoid a hasty reaction to recent developments and to carefully consider the implications of any potential tax changes.

Directors agreed that the monetary policy stance has been broadly appropriate and inflation is well contained. Against the backdrop of elevated levels of uncertainty, the tightening cycle should proceed with caution and be guided by incoming data on economic activity.

Directors concurred that current macroprudential measures are appropriate and appear to have contributed to a cooling in the housing market. If housing vulnerabilities continue to rise, the authorities should consider introducing additional measures. Directors stressed that a broad set of supply-side policies is needed to address housing affordability concerns and reduce demand pressures.

Directors emphasized the importance of close coordination and information exchange between federal and provincial regulators to mitigate risks to financial stability. Gaps identified in the

[2] At the conclusion of the discussion, the Managing Director, as Chairman 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.

AML/CFT assessment will need to be addressed. Directors looked forward to the upcoming FSAP for a comprehensive assessment of the financial sector.

Directors urged Canada and its NAFTA trade partners to continue to work constructively to reach an agreement within a reasonable timeframe that further opens trade and promotes competition. Directors commended the authorities for signing the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and urged them to ratify the agreement as soon as possible.

Directors stressed that revitalizing productivity is key to boosting long-term growth and commended the authorities for making this a priority. They recommended reducing barriers to inter-provincial trade, facilitating infrastructure investment, and further deregulating product markets to attract FDI. These steps should be implemented in coordination between federal and provincial authorities.

**Canada: Selected Economic Indicators**

(Percentage change, unless otherwise indicated)

| | 2014 | 2015 | 2016 | 2017 | Projections 2018 | 2019 |
|---|---|---|---|---|---|---|
| **Output and Demand** | | | | | | |
| Real GDP | 2.9 | 1.0 | 1.4 | 3.0 | 2.1 | 2.0 |
| Total domestic demand | 1.8 | 0.1 | 0.9 | 3.8 | 3.2 | 1.3 |
| Private consumption | 2.6 | 2.2 | 2.3 | 3.4 | 1.8 | 1.4 |
| Total investment | 1.0 | -5.9 | -3.9 | 6.4 | 7.6 | 1.8 |
| Net exports, contribution to growth | 1.1 | 0.9 | 0.7 | -0.9 | -0.6 | 0.7 |
| **Unemployment and Inflation** | | | | | | |
| Unemployment rate (average) 2/ | 6.9 | 6.9 | 7.0 | 6.3 | 6.1 | 6.2 |
| CPI inflation (average) | 1.9 | 1.1 | 1.4 | 1.6 | 2.5 | 2.2 |
| **Saving and Investment 1/** | | | | | | |
| Gross national saving | 22.5 | 20.5 | 20.0 | 20.8 | 20.9 | 21.9 |
| General government | 3.8 | 3.7 | 3.2 | 3.1 | 2.8 | 2.8 |
| Private | 18.7 | 16.8 | 16.8 | 17.6 | 18.1 | 19.1 |
| Personal | 4.8 | 5.6 | 5.0 | 5.0 | 4.4 | 5.0 |
| Business | 13.9 | 11.2 | 11.8 | 12.6 | 13.7 | 14.1 |
| Gross domestic investment | 24.9 | 24.1 | 23.2 | 23.7 | 23.8 | 23.9 |
| **General Government Fiscal Indicators 1/** (NA basis) | | | | | | |
| Revenue | 38.6 | 39.8 | 39.6 | 39.2 | 39.2 | 39.2 |
| Expenditures | 38.5 | 39.9 | 40.7 | 40.3 | 40.4 | 40.3 |
| Overall balance | 0.2 | -0.1 | -1.1 | -1.1 | -1.2 | -1.1 |
| Gross Debt | 85.0 | 90.5 | 91.1 | 89.7 | 87.3 | 84.7 |
| Net debt | 28.0 | 27.7 | 28.5 | 27.8 | 27.6 | 27.2 |
| **Money and Credit** (Annual average) | | | | | | |
| Household Real Credit Growth | 2.3 | 3.7 | 4.1 | 4.0 | 3.1 | 3.1 |
| Business Real Credit Growth | 5.7 | 7.2 | 3.9 | 6.8 | 7.1 | 7.9 |
| Three-month treasury bill 2/ | 0.9 | 0.5 | 0.5 | 0.7 | 1.1 | 1.7 |
| Ten-year government bond yield 2/ | 2.2 | 1.5 | 1.3 | 1.8 | 2.3 | 2.7 |
| **Balance of Payments** | | | | | | |
| Current account balance 1/ | -2.4 | -3.6 | -3.2 | -2.9 | -2.9 | -2.0 |
| Merchandise Trade balance 1/ | 0.2 | -1.2 | -1.3 | -1.1 | -0.8 | -0.1 |
| Export volume (percent change) | 5.9 | 3.5 | 0.5 | 0.7 | 2.2 | 4.0 |

Sources: Haver Analytics and Fund staff calculations.
1/ Percent of GDP.
2/ In percent.

INTERNATIONAL MONETARY FUND

# CANADA

## STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION

June 28, 2018

## KEY ISSUES

**Context.** The economy has continued to perform well, but trade tensions, uncertainty about the outcome of NAFTA negotiations and the impact of the U.S. Tax Cuts and Jobs Act on Canada's competitiveness are casting a shadow over the outlook.

**Focus of consultation**. Against this backdrop, the 2018 Article IV consultation focused on policies to secure stronger, more inclusive, and sustainable growth. The consultation assessed the growth and risk outlook; policies and reforms to sustain the recent recovery and raise long-term potential growth; the implications of the U.S. tax reform for Canada; housing market imbalances and affordability issues; and policies to strengthen financial system resilience as household and corporate debt climbed to historic highs.

**Key Policy Messages:**

The current favorable economic environment presents an opportunity to rebuild policy buffers, and forge ahead with structural reforms to boost Canada's global competitiveness:

- Fiscal policy should focus on rebuilding policy buffers, with the burden of adjustment falling on provincial governments. The federal and provincial fiscal framework could also explicitly incorporate fiscal rules to better demonstrate a commitment to well-managed public finances. The current balance of risks around the outlook supports the Bank of Canada's cautious approach to monetary policy normalization.

- Macroprudential policy is broadly appropriate, but supply-side policies at the provincial and municipal levels are needed to address affordability concerns and reduce demand pressures more permanently. Federal and provincial cooperation is required to mitigate other potential and emerging risks to financial stability.

- A well-articulated strategy to improve competitiveness is critical for medium-term growth. A review of the Canadian tax system is necessary to assess the scope for improving efficiency and preserving Canada's tax position globally. More can also be done to reduce domestic barriers to trade, regulatory red-tape, and restrictions to foreign direct investment. Investment in infrastructure and immigration, a successful NAFTA agreement, and rapid CPTPP ratification would enhance Canada's ability to seize the potential benefits offered by greater market access and export diversification.

Approved By
**Krishna Srinivasan (WHD) and Vitaliy Kramarenko (SPR)**

Discussions took place in Vancouver and Montreal during April 30-May; and Toronto and Ottawa during May 15-25 and June 4, 2018. The team comprised Ms. Lim (head), Messrs. Ishi, Matheson, and Alvarez (all WHD), Ms. Arvai (MCM), and Mr. Keen and Ms. Liu (FAD). Ms. Arias Granada and Mr. Ochoa (WHD) provided valuable assistance. Messrs. Werner and Srinivasan (both WHD) joined the mission for the concluding meeting in Ottawa. Ms. Young (OED) and Ms. Zorn (OED) accompanied the mission for parts of the trip, and Ms. Horsman (ED) attended the concluding meeting. The mission met with Finance Minister Morneau, Governor Poloz, Superintendent Rudin, Deputy Minister Rochon, Deputy Governors Lane, Leduc, and Patterson, other senior officials, regulators, provincial governments, representatives from the financial and business sector, academics, and think tanks. The press conference was held on June 4, 2018 in Ottawa.

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# POLITICAL CONTEXT: TURNING RISK INTO OPPORTUNITY

1. **Canada is facing a tectonic shift in the North American economic landscape.** NAFTA, which has facilitated trade in the region for over 20 years, is under negotiation. Contention over several key issues have prolonged the process, which started in August 2017. An escalation in trade tensions between the U.S. and its major trading partners could disrupt global supply chains. Furthermore, the 2018 U.S. Tax Cuts and Jobs Act threatens to erode Canada's relative tax advantage. Economic anxiety is high.

2. **Developing a policy response to deal with the economic uncertainties being created will be an important challenge for the federal government heading into an election year.** The government was prudent in resisting industry pressure to cut taxes in the 2018 Federal Budget to match the U.S. tax cuts. Beyond the impact of the tax cuts on economic activity that are well captured in macro models, the U.S. tax reform includes several novel features whose likely spillover effects require more time to assess. A rush to conclusion about its net effects would be premature. In addition, Canada's longstanding problems of low labor productivity growth, population aging, and weak trade competitiveness need solutions that go beyond tax cuts. The current favorable economic environment presents an opportunity to rebuild policy buffers, assess the implications of the U.S. tax reform for Canada, and to push forward with comprehensive structural reforms to keep Canada globally competitive.

3. **Traction of past advice**. Staff and the authorities have shared the same views in many policy areas, including: (i) using available fiscal space to support the economy and to keep monetary policy accommodative until signs of durable growth and inflation pressures emerge; (ii) strengthening macroprudential policy and supervision to tackle housing sector vulnerabilities and mitigate financial stability risks; (iii) collecting more comprehensive and timely data on real estate transactions; and (iv) investing in infrastructure and structural reform to revitalize productivity and raise potential growth.

# RECENT DEVELOPMENTS

## A. A Solid Recovery but Investment and Exports are Still Lagging

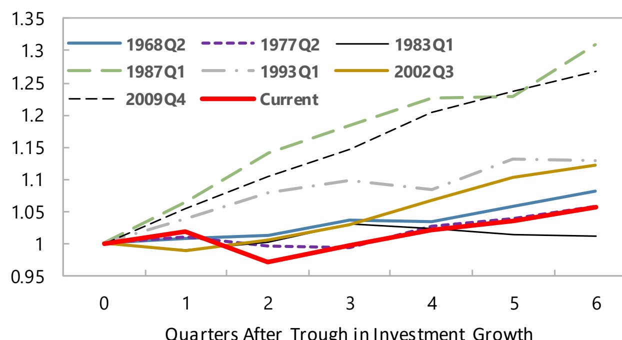
4. **After two years of slow growth, the economy outperformed in 2017, posting the highest growth rate among G7 countries.** The economy grew by 3 percent, supported by accommodative fiscal and monetary policies, a strong U.S. economy, and higher oil prices (Figure 1, Table 1). The economic gains were broadly distributed across provinces. Private consumption has been the largest contributor to Canada's recent rapid growth:

- *Private consumption has been supported by strong gains in disposable incomes, which started accelerating in late 2016*. Fiscal transfers contributed to the initial boost in incomes, but more

recent increases have been the result of rising wages and a strengthening labor market. The full-time employment rate has increased steadily, and the unemployment rate has fallen below 6 percent, its lowest level in 40 years (Figure 2).

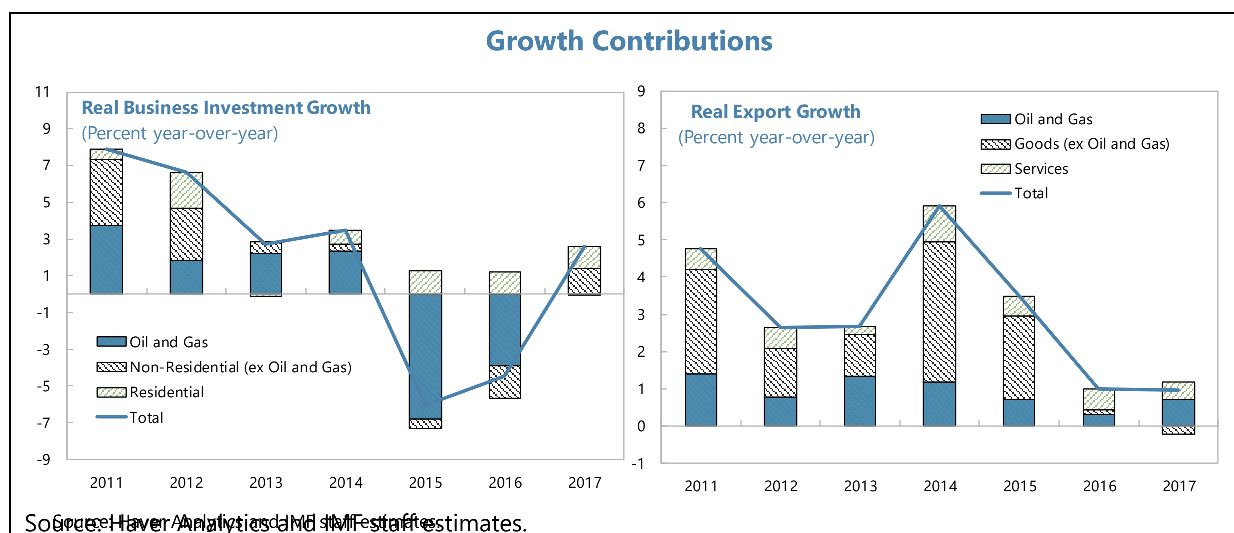
- *Business investment has remained subdued*. Business investment grew for the first time since 2014, but the recovery is modest from a historical standpoint. Investment in the oil sector has been largely flat because oil prices have not reached levels sufficient to spark renewed capital spending. While residential investment accelerated in 2017Q4, the underlying trend has slowed, reflecting higher mortgage interest rates, tighter macroprudential policies, and new tax measures.

**Recoveries in Real Non-Residential Investment 1/**
(Index=1 at trough in investment contraction)



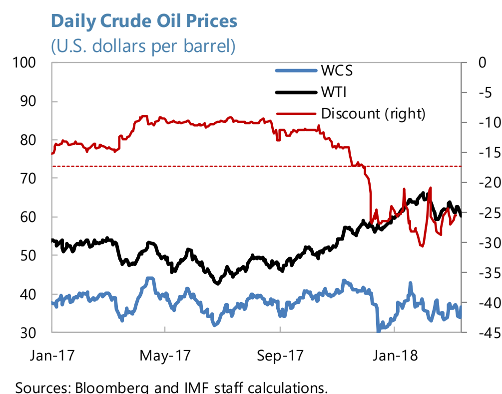

Source: Statistics Canada and staff estimates.
1/ Recoveries following all contractions in annual non-residential growth since 1961. Dates refer to the trough during each investment growth contraction.

- *Export growth picked up in the first half of 2017 but has since stalled*. Growth in exports of oil and gas increased over 2017, in line with a rebound in prices (Figure 3, Table 2). Non-energy goods exports, however, have disappointed, with declining exports of automobiles, aircraft, and consumer goods. Services exports, in contrast, have continued to grow at a relatively steady pace, led by commercial and transportation services.




Source: Haver Analytics and IMF staff estimates.

**5. Despite the rebound in global oil prices, Canadian crude (WCS) has been trading at a steeper-than-usual discount relative to the West Texas Intermediate (WTI) benchmark.[1]** Typically, the discount is driven by quality differences and transportation costs. Recently, higher production and pipeline closures have led to rising inventories in Western Canada that have outstripped pipeline capacity.[2] Producers have resorted to transporting crude by rail, a less flexible and more expensive form of transportation (cost estimated at $20 per barrel), thus necessitating a larger price discount to make the economics work. The WCS price differential affects the cash-flow of small- to mid-sized producers more than large vertically-integrated producers that refine their own heavy crude.

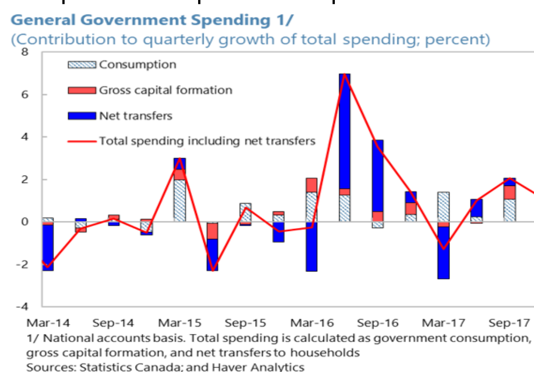


Sources: Bloomberg and IMF staff calculations.

**6. The external position has improved but remains moderately weaker than justified by fundamentals and desirable policies, and the Canadian dollar is slightly overvalued** (Annex 1). The current account balance narrowed to 2.9 percent of GDP in 2017 (from 3.2 percent of GDP in 2016), driven by an improvement in the energy trade balance. The current account deficit has been largely financed by portfolio inflows. Overall, despite its current account deficit and rising external debt, Canada remains a net creditor to the rest of the world. The market value of the net international investment position was $400 billion at the end of 2017, almost doubling over the year as external assets showed significant valuation gains.

## B. Policy Levers Begin to Adjust as the Output Gap Closes

**7. The fiscal stance has been supportive of growth over the past two years.** The federal government cyclically-adjusted balance swung from a surplus of 0.3 percent of potential GDP in 2015 to a deficit of 0.3 percent in 2016, and rose further to 0.5 percent in 2017 (Tables 3 and 4). The bulk of government spending was used to raise household disposable income (e.g. through higher child care benefits and tax cuts for the middle class) and infrastructure investment. With overall provincial fiscal positions equally supportive of growth, the cyclically-adjusted general government deficit increased from 0.9 percent of GDP in 2016 to 1.3 percent of GDP in 2017.



1/ National accounts basis. Total spending is calculated as government consumption, gross capital formation, and net transfers to households
Sources: Statistics Canada; and Haver Analytics

[1] Supply outages, the extension of the production agreement by the Organization of the Petroleum Exporting Countries (OPEC), and stronger-than-expected global economic growth all pushed oil prices higher.

[2] TransCanada's Keystone pipeline was shut down for almost two weeks in November because of a spill in South Dakota, creating a backlog and storage facilities began filling up in Alberta. Service on the line has since resumed but at reduced capacity.

**8. With the output gap closing and inflation rising toward the target, the central bank has begun a tightening phase.** After decelerating toward the lower bound of the Bank of Canada's target range (1-3 percent) in mid-2017, all three core inflation measures (CPI-trim, CPI-median, and CPI-common) and headline inflation have been edging up and currently hover around the mid-point of the range (Figure 4). After being fixed at 50 basis points for two years, the policy interest rate has been raised 3 times since July 2017 to 1.25 percent. Since June 2017, Canadian 10-year government bond yields have increased by 50 basis points to 2.1 percent in line with rising U.S. treasury yields, and the 5-year mortgage rate has increased by 70 basis points to 4.3 percent.

## C. Housing Market Cools but Household Debt Remains High

**9. House prices in the major cities are growing at a more moderate pace after the latest round of macroprudential and tax measures.** Since the beginning of this year, annual house price inflation has fallen from over 30 percent at the peak to about 16 percent in Vancouver and has turned negative in Toronto, and home sales have been the slowest since end-2008 (Figure 5). In other regions, house price inflation is in the low single digits, while in Calgary, prices remain depressed four years after the oil shock. The general slowdown reflects the use of macroprudential measures to safeguard financial stability and provincial tax measures to mitigate speculative activity and improve affordability in regional markets.

**10. Household debt remains a key macro-financial vulnerability**. Changes in housing finance policy have shifted vulnerabilities in the mortgage market over time. Low-ratio mortgages have become more prevalent, accounting for 75 percent of new lending nationwide and for 90 percent in Toronto and Vancouver in 2017.[3] Although low-ratio mortgages in principle create fewer vulnerabilities because of their large equity cushion, several indicators suggest that vulnerabilities among these borrowers may have increased. Notably, the share of highly indebted households (LTI greater than 450 percent) in new mortgage originations increased from 16 percent in 2014 to 22 percent in 2016, and because these mortgages tend to be larger than the average mortgage, accounted for 32 percent of the *value* of all low-ratio mortgages in 2016. The increase was more pronounced among younger borrowers (less than 35 years of age), borrowers in the lowest income quintile, and borrowers in markets with strong house price growth. Most recently, the data suggest that the share of these highly indebted households has stopped rising and even declined slightly beginning in late 2017. But even as conditions slowly improve, the sheer size of the outstanding debt of 173 percent of disposable income means that the vulnerability will likely persist at an elevated level for some time.[4]

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[3] Low-ratio mortgages are mortgages with loan-to-value (LTV) ratios less than 80 percent that are not backed by mortgage insurance. High-ratio mortgages are mortgages with LTVs greater than 80 percent that require mortgage insurance. Houses priced over $1 million are not eligible for mortgage insurance. See Financial System Review, November 2017 and June 2018.

[4] Household debt consists of 80 percent mortgage debt and home equity lines of credit (HELOC). The volume of HELOC-type products is around one-fifth of the volume of residential mortgage credit (for federally regulated banks). The growth rate of HELOCs has been accelerating since early 2016 and now outpaces growth of residential mortgage credit (7.2 percent vs. 5.9 percent in December 2017).

## D. Another Banner Year for the Large Banks with Some New Risks

**11. The financial indicators of the six largest banks (D-SIBS), accounting for 93 percent of banking system assets, appear strong.** The D-SIBs have employed different strategies to support earnings growth, including acquisitions abroad and expansion in wealth management and capital markets businesses.[5] Their return on equity of around 15 percent remains well above the average of G-SIBS, and net interest margins compare favorably as well (Figure 6, Tables 5 and 6). The NPL ratio is low at 0.5 percent of total loans in 2018Q1. The D-SIBs draw about 50 percent of their total funding from wholesale sources. The average Core Tier 1 capital ratio rose to 12.9 percent in 2018Q1 with a leverage ratio of 4.2 percent.[6] In November 2017, Royal Bank of Canada became the first Canadian bank to be added to the list of global systemically important banks (G-SIBs). Bank stocks have consistently been the best performing in the TSX (Figure 7).

**12. The banking system has a large exposure to household debt and is vulnerable to a sharp reversal in house prices, but other exposures also merit attention in a low interest rate environment.** The share of uninsured mortgage loans has increased by 3 percentage points to 12.5 percent of total assets between 2011 and 2017 (Figure 8). Some banks have exposures to monoline lenders that rely on brokered deposits to fund uninsured mortgage lending. While these institutions account for a small share of the banking system, a potential funding stress such as the one experienced by Home Capital Group in early 2017 can affect other lenders. Corporate indebtedness has been rising and the corporate debt-to-GDP ratio is now at a historic high of 161 percent; corporate debt makes up 13 percent of total bank assets and 21 percent of total bank loans. The rapid growth of external debt of financial institutions over the past five years (15 percentage points of GDP) also exposes banks to abrupt changes in global risk appetite (Table 7). Banks' oil-sector related portfolios remain small at less than 3 percent of total assets.

# OUTLOOK AND RISKS: UNCERTAIN TIMES

**13. Growth is expected to moderate to more sustainable levels as the impact of policy tightening takes effect.** Real GDP growth is projected to slow to 2.1 percent in 2018 and 2.0 percent in 2019 (Table 8). With the economy beginning to face capacity constraints, the monetary policy tightening phase is expected to continue. Higher interest rates and tighter macroprudential policies are expected to weigh on private consumption and residential investment activity as borrowing and debt service costs rise.[7] The fiscal stance, which is expected to gradually tighten by about 0.1 percent of GDP per year from 2018 through the projection horizon, will have negligible

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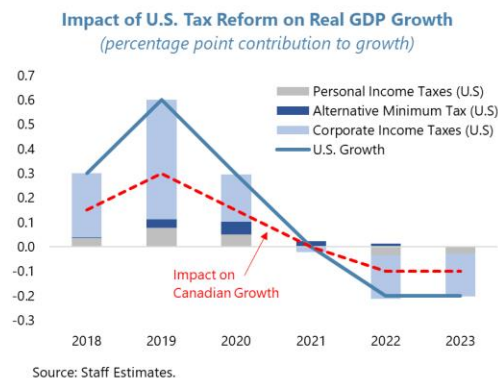
[5] Earnings from international operations for TD Bank in the U.S. and Bank of Nova Scotia in Latin America are especially important and account for around 30 percent of their total net income.

[6] Banks began reporting under International Financial Report Standards 9 (IFRS 9) in 2018, which affects the way they report the allowance for credit losses on their balance sheets. This change led to an additional capital build-up of 45 basis points for the D-SIBs.

[7] Tighter macroprudential policy is expected to subtract about 0.2 percent from the level of GDP by the end of 2019 (see October 2017, Bank of Canada *Monetary Policy Report*).

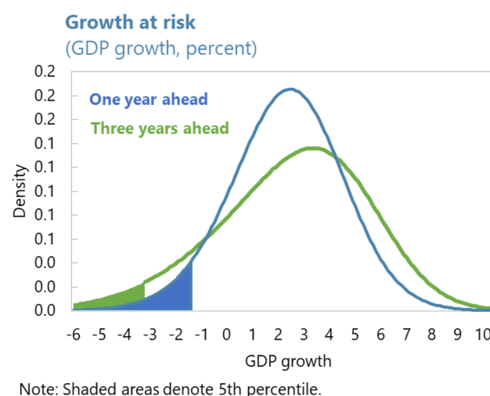
impact on growth (Table 8). On the other hand, tax cuts and stronger government spending in the U.S. are expected to support demand for Canadian exports in the near term and contribute to a narrowing of the current account deficit. The U.S. tax reform is projected to increase U.S. growth over 2018-20 and reduce it over 2022-23, when temporary measures are set to expire (full expensing of capital expenditures and personal income tax cuts).[8] This is expected to boost Canada's growth by 0.2-0.3 percentage points between 2018-20, and reduce growth by around 0.1 percentage points between 2021-22. Credit to households and corporates is projected to slow in line with economic activity. Over the medium-term, weak external competitiveness, sluggish labor productivity growth, and population aging are expected to limit potential growth to about 1¾ percent.



Source: Staff Estimates.

**14. The outlook is subject to significant risks, both domestic and external.** Estimates from a growth-at-risk model for Canada suggest downside risks to the growth outlook have been building.[9]

- *A key domestic risk is a sharp correction in the housing market*. A sharp correction in domestic housing markets could be triggered by a sudden shift in price expectations or a faster-than-expected increase in mortgage interest rates. While the banking system has high profitability, it is heavily exposed to household and corporate debt. Thus, in this scenario, risks to financial stability and growth could emerge, if the house price correction is accompanied by a rise in unemployment and a sharp contraction in private consumption.



Note: Shaded areas denote 5th percentile.

- *External risks are more acute than in the recent past and relate to the impact of policy changes in the U.S. and NAFTA.*

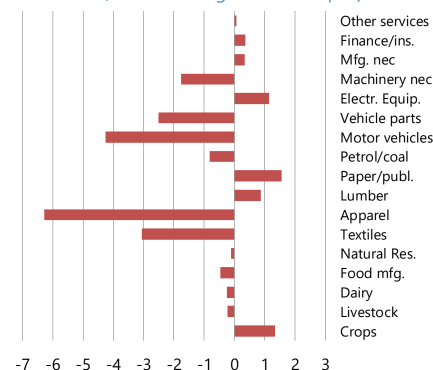
  a. The impact of the U.S. tax reform on near-term growth in the U.S. and the subsequent impact on Canada are subject to considerable uncertainty, with both economies currently

[8] The tax multipliers assumed for the U.S. are calculated based on empirical and model-based evidence. Broadly speaking, the multipliers for personal income tax cuts are assumed to be less than one, while the multipliers for corporate income taxes (including the immediate expensing of capital expenditures) are assumed to be greater than one.

[9] Forecast distributions are generated using quantile regressions conditional on current financial and economic conditions. The 5$^{th}$ percentile represents tail risks. The difference in *modal* forecasts at one and three-year horizons were found to be insignificant. See A. Tobias, N. Boyarchenko, D. Giannone (2018) "Vulnerable Growth" American Economic Review, forthcoming; and GFSR Chapter 3, October 2017 and Chapter 1, April 2018.

operating near full capacity and some tax provisions (notably on the international aspects of the reform) without historical precedent. Likewise, the impact of lower tax rates in the U.S. could make Canada a less attractive destination for investment, leading to heightened uncertainty about Canada's medium-term growth prospects.

**Canada: Effects of Unsuccessful NAFTA Negotiations Across Industries**
(Percent change in real output)




Source: IMF staff estimates.

b. Delays in forging a new NAFTA agreement could impact investment and growth for an extended period. CGE-based model estimates suggest that the failure of NAFTA and a reversion to non-preferential (MFN) tariffs could reduce long-run Canadian real GDP by around 0.4 percent, with production of manufactured goods (notably, machinery and equipment, automobiles, and apparel and textiles) being particularly hard hit.[10] The negative effects of a failure of NAFTA negotiations could be amplified if non-tariff trade costs (such as the breakdown of supply chains, delays for inspections and other administrative costs at the border rise.)[11] A 10 percent increase in non-tariff trade costs, for example, could reduce real GDP by 1.9 percent.

**Canada: Effects of Unsuccessful NAFTA Negotiations 1/**

| Trade Costs (assumed) *% change* | Real GDP *% change* | Trade Balance *$US mil. change* |
|---|---|---|
| **2** | **-0.45** | **-33.87** |
| 5 | -1.04 | -198.29 |
| 10 | -1.94 | -409.57 |
| 15 | -2.74 | -547.47 |

Source: IMF staff calculations.
1/ Tariffs revert to MFN rates.

c. Likewise, a failure of NAFTA negotiations and further escalation of trade tensions could result in much higher tariffs than MFN rates on trade between the U.S. and Canada. In the short term, this could spark a surge in inflation as import prices rise sharply and the exchange rate depreciates. However, this effect would likely be temporary as a significant drop in demand for Canada's exports would eventually lead to a large and persistent fall in output and declining inflation.

- *Other risks include structurally weaker growth in key advanced economies, a sharp slowdown in China, and tighter global financial conditions*.
- *On the other hand, higher oil prices prompted by either rising global prices or an easing in domestic pipeline constraints that narrows the WTI-WCS spread could present upside risks to the outlook.*

[10] This assumes that Canada, the U.S. and Mexico revert to Most Favored Nation (MFN) tariffs under WTO rules and other (non-tariff) trade costs increase by 2 percent. The model includes 7 country aggregates (Canada, Mexico, U.S., China, other Asia, EU-27, and the rest of the world) and 17 sectors containing all goods and services produced by each country. See Appendix I for a more detailed description of the model and assumptions, including those related to rules of origin and other non-tariff trade costs.

[11] Trade costs are the inefficiencies resulting from added requirements such as inspections and paperwork due to more restrictive bilateral trade policies. In the modeling framework, trade inefficiency is measured in terms of the good itself so that as inefficiency increases, less of the exported good arrives at the importer's port.

## Canada: Risk Assessment Matrix 1/
(Scale—low, medium, and high)

| Source of Risks | Relative Likelihood | Impact | Policy Response |
|---|---|---|---|
| ***Globally-sourced risks*** | | | |
| 1. Retreat from cross border integration | **Medium** | **High**<br>Canada is a highly open economy with total trade accounting for over 60 percent of GDP. A shift toward protectionism and economic isolationism would reduce global trade, capital and labor inflows, and global growth. A prolonged period of uncertainty, the repeal of NAFTA or the further escalation of trade tensions would negatively affect Canada's exports, business investment and private consumption. The U.S. tax reform will also likely affect the relative attractiveness of Canada as a location for investment. | Short-term policy response<br>The BOC should closely monitor inflation developments and be prepared to cut the policy rate and, if necessary, resort to unconventional measures.<br>The federal government, as well as provinces with fiscal space, should ease fiscal policy and introduce discretionary measures, including bringing forward the infrastructure program and cutting personal income taxes which have a relatively high multiplier.<br><br>Medium-term policy response<br>Structural reform policies should be accelerated to raise productivity, which would improve external competitiveness, foster trade, and boost potential growth. Reduce the marginal effective corporate tax rate, while adjusting indirect taxes to ensure revenue neutrality. |
| 2. Policy uncertainty | | | |
| 3. Tighter global financial conditions | **High** | **Low/Medium**<br>Against the backdrop of continued monetary policy normalization and increasingly stretched valuations across asset classes, an abrupt change in global risk appetite (e.g. due to higher-than-expected growth and inflation in the U.S.) could lead to sudden, sharp increases in interest rates and associated tightening of financial conditions. This could lead to higher long-term rates, raising the funding cost for indebted Canadian businesses and households. Growth would slow and defaults on mortgage and consumer loans could increase. | |
| 4. Structurally weak growth in key advanced economies /significant U.S. slowdown | **High/ Medium** | **Medium/High**<br>Weak demand and anemic productivity growth in some advanced economies would reduce demand for Canadian exports and lower Canada's potential growth. Significant U.S. slowdown, possibly associated with the eventual planned withdrawal of the tax stimulus, could create adverse spillovers to Canada's economy. | |
| ***Domestically-sourced risks*** | | | |
| 5. Sharp house price correction, with a sharp and persistent rise in unemployment | **Medium** | **High**<br>With households highly indebted, housing markets could be destabilized, severely impairing banks' asset quality, and setting off negative feedback loops in the economy, with a sharp slowdown in private consumption and residential investment. The government balance sheet could be hit by claims on mortgage insurance. Companies could face declining sales and revenue, compromising their ability to service debt. A generalized slowdown in growth would threaten financial stability. | Provide emergency liquidity as needed and ensure adequate loss absorbing buffers in the banking and insurance sectors. Ensure that an effective framework is in place for cooperation between federal and provincial authorities in both ongoing supervision and crisis preparedness. |

1/ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). 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. "Short term (ST)" and "medium term (MT)" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.

# POLICIES FOR SUSTAINABLE AND INCLUSIVE GROWTH

## A. Fiscal Policy

*The federal fiscal balance has improved but progress at the provincial level is more mixed. With near-term growth on stronger footing, fiscal stimulus is no longer necessary. Instead, the focus should be on rebuilding fiscal buffers now to create room for fiscal support in case of a downturn and to finance growth-friendly policies. To bolster fiscal credibility and enhance communication, the fiscal framework could explicitly incorporate a medium-term debt objective combined with a small number of operational rules to guide fiscal policy.*

**15. Stronger-than-expected GDP growth has improved the federal fiscal outlook.** With higher revenue collections and lower transfers to households, the federal government anticipates a reduction in the cumulative fiscal deficit over the next five years (FY2017/18 - FY2021/22) from 5 percent to 2¼ percent of GDP. This implies a windfall gain of about 2¾ percent of GDP that can be used for new discretionary measures. With the output gap closing, the federal government has decided not to spend all the windfall gain, choosing instead to allocate half of the gain for new measures and the remainder to be used to gradually reduce the federal debt-to-GDP ratio from 30.4 percent of GDP in FY2017/18 to 28.4 percent of GDP in FY2022/23 (authorities' definition).

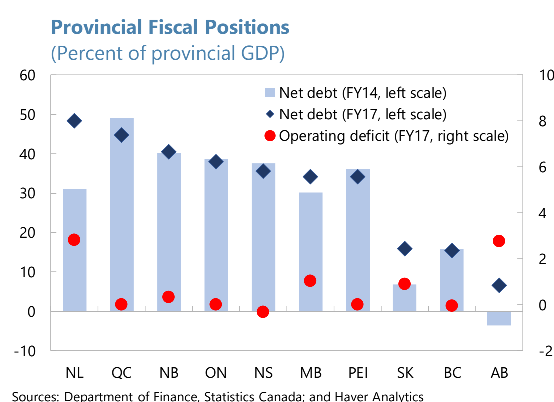
**Sources of Windfall Gain 1/**

| | % of FY17-FY 21 average GDP |
|---|---|
| Higher growth effects | 1.6 |
| Higher revenues | 1.3 |
| Lower transfers to households (incl. unemployment benefits) | 0.3 |
| Changes in contingencies | 0.1 |
| Others (incl. operating expenses) | 1.1 |
| Total windfall gain | 2.8 |

1/ The windfall gain is the change in the cumulative deficit projected over the next five years between the 2017 Fall Economic Statement (about 5 percent) and the 2018 Budget (about 2¼ percent) resulting from changes in macroeconomic forecasts and underlying fiscal developments.

**16. At the provincial level, progress on fiscal consolidation has been mixed and contingent liabilities loom on the horizon.**

**Provincial Fiscal Positions**
(Percent of provincial GDP)



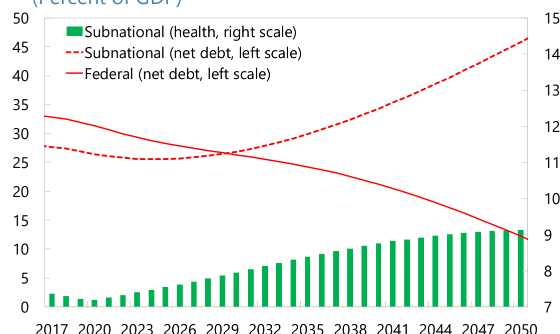
Sources: Department of Finance, Statistics Canada; and Haver Analytics

- Quebec and BC have made tangible progress in generating a surplus operating balance to reduce net debt. Ontario recently achieved a balanced operating budget, but announced in its 2018 Budget its intention to run a deficit of ¾ percent of Ontario GDP over the next three years.[12] Alberta is running a sizable operating

[12] The Ontario Auditor-General disputed the accounting treatment of the Fair Hydro Plan and two public pension plans. Adopting the recommended accounting treatment would imply a deficit of 0.4 percent of Ontario GDP in FY2017/18.

deficit (about 2¾ percent of Alberta GDP) and its net debt has increased rapidly, albeit from a very low base.

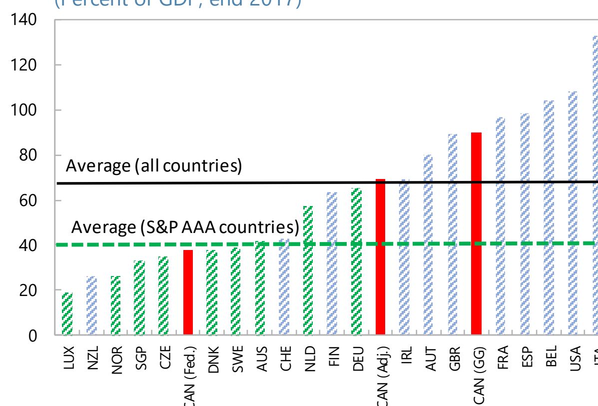
- Fiscal pressures are expected to mount over the long term. The Office of the Parliamentary Budget Officer (PBO) expects annual growth of health care spending to accelerate from 3 percent to 4½ percent within a 10-20-year time-frame. As a result, net debt to GDP ratios are expected to start accelerating by mid-2020s.



Source: Office of the Parliamentary Budget Officer, Financial Sustainability Report 2017

**17. The improvement in the federal fiscal balance is welcome and frees up room for the federal government to support inclusive growth by promoting social and gender equity.** Key measures amounting to about 0.4 percent of GDP include: (i) making tax benefits for low-income workers more generous by increasing maximum benefits and raising the highest income eligibility threshold; (ii) encouraging greater women participation in the workforce (Box 1); and (iii) supporting indigenous communities (mostly in the areas of housing and health).[13]

**18. The cyclical upswing in economic activity also presents an opportunity to focus fiscal policy on rebuilding buffers and supporting productivity-enhancing growth.** While Canada has some fiscal space, general government gross debt is high compared to its triple A-rated peers (Annex II). Rebuilding buffers in good times will ensure that the government has sufficient fiscal ammunition to respond in case of a downturn, and reducing debt would provide the government with more options to handle future challenges, most notably those relating to aging and weak productivity growth. This said, the pace of fiscal consolidation should be gradual given uncertainty about the amount of slack in the economy and the balance of risks around the outlook.



Sources: WEO database and IMF staff estimates.
1/ CAN(Adj) is general government debt adjusted for accounts payable; and CAN(Fed) is federal government debt.

**19. In this regard, both the federal and provincial governments have important roles to play, but the onus lies with provincial governments.** The decision by the federal government to use half of its windfall gain for debt reduction and the rest for addressing key social needs strikes

[13] The budget also assumes revenue loss due to tariff reductions under the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and revenue gain from tightening tax loopholes for the treatment of passive investment income earned by private corporations.

the right balance between priority spending and fiscal consolidation. However, the slow pace of fiscal consolidation envisaged at the provincial level means that at the aggregate level, the general government deficit will only decline from 1.1 percent of GDP in 2017 to 0.9 percent of GDP in 2023. Therefore:

- *Provinces that are running high deficits or debt should take the lead in making the necessary fiscal adjustment*. Under the baseline, provincial governments are expected to cut the overall deficit from 1.4 percent of GDP in 2018 to 1.1 percent in 2023, but the size of the adjustment could be increased to at least 0.6 percent.

- On the federal side, while the medium-term size of the fiscal adjustment is appropriate, the adjustment could be more front-loaded. The federal government is expected to take a broadly neutral stance in 2018 and to cut the overall deficit from 0.9 percent of GDP in FY2017/18 to 0.5 percent by FY2022/23 (authorities' definition). With growth above potential in the near term, the adjustment could be front-loaded to halve the deficit two years earlier.

**Illustration of Front-Loaded Fiscal Adjustments**

| | | Projections | | | | |
|---|---|---|---|---|---|---|
| **Fiscal year** | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 |
| **Federal government deficits (authorities' definition)** | | | | | | |
| **2018 Budget plan** | | | | | | |
| C$ billion | -19.4 | -18.1 | -17.5 | -16.9 | -13.8 | -12.3 |
| Percent of GDP | -0.9 | -0.8 | -0.7 | -0.7 | -0.5 | -0.5 |
| Adjustment (change) | ... | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Front-loaded consolidation** | | | | | | |
| C$ billion | -19.4 | -18.1 | -13.4 | -11.2 | -11.4 | -12.3 |
| Percent of GDP | -0.9 | -0.7 | -0.6 | -0.5 | -0.5 | -0.5 |
| Additional adj. (%GDP) | ... | 0.1 | 0.1 | 0.1 | -0.1 | -0.1 |
| *Memorandum items:* | | | | | | |
| Nominal GDP (C$ billion) | 2,165 | 2,262 | 2,353 | 2,443 | 2,535 | 2,626 |
| Real GDP growth rate (CY, %) | 3.0 | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 |

Sources: Statistics Canada; Finance Canada; and IMF staff calculations.

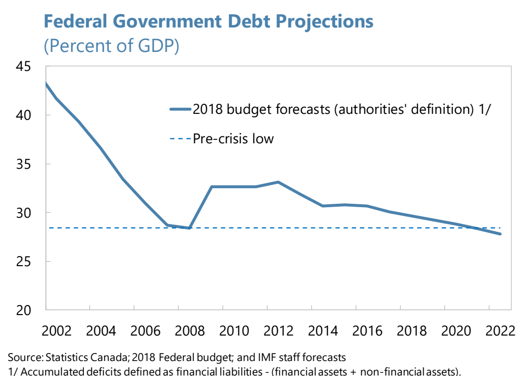
- With more determined fiscal consolidation, general government gross debt would fall to 74 percent of GDP by 2023, compared to 76 percent of GDP under the baseline scenario. The impact on growth should be minimal because the economy is operating around capacity and the multiplier effects are expected to be small.

- At both levels of government, if the economy turns out to be better than anticipated, resulting in higher revenues and smaller expenditures, a larger portion of these fiscal savings could be targeted for deficit and debt reduction. On the other hand, if downside risks materialize and growth underperforms, automatic stabilizers should be allowed to operate fully, and some discretionary measures could be deployed depending on the severity of the downturn.

**20. To bolster fiscal credibility and enhance communication, the federal government could adopt a debt anchor combined with an operational rule.** Although the federal debt is projected to fall to a pre-crisis low by FY2022, this is not the government's explicit commitment. The government also does not have an operational rule that serves as an instrument to provide short-term guidance to market participants. There is broad consensus that well-designed rules could help reduce the risk of "deficit bias," particularly during election cycles, thus strengthening fiscal

accountability.[14] Furthermore, credit rating agencies assume an implicit federal guarantee in assessing provincial debt ratings, partly because the federal government shares the burden of health care costs through the Canada Health Transfer system.

- *Debt anchor*. The federal government could explicitly aim to lower debt to the pre-crisis low of 28 percent of GDP (authorities' definition), which should provide the government with ample fiscal space to respond to shocks equivalent to those experienced during the 2008 global crisis.



Source: Statistics Canada; 2018 Federal budget; and IMF staff forecasts
1/ Accumulated deficits defined as financial liabilities - (financial assets + non-financial assets).

- *Operational rules*. The rule should be designed to strike the right balance between enforcement, flexibility, and simplicity. If a cyclically-adjusted balance rule proves too complex to communicate, an expenditure rule (e.g. placing a cap on expenditure or expenditure growth) could be considered. The advantage of the expenditure rule is that it is easier to measure and communicate, and provides flexibility. In good times, the rule prevents higher-than-expected revenues from being spent, thus contributing to fiscal buffers. In tough times, automatic stabilizers would reduce revenues, while on the expenditure side, the rule would include contingencies and escape clauses for exceptional circumstances.[15]

- Regularly scheduled reviews assessing whether the fiscal framework achieves its objectives should be an integral part of the system. These assessments would inform whether existing rules should be kept, revised, or abandoned. The PBO in its official watchdog function can be tasked with monitoring compliance with rules and with ensuring that rules are not circumvented by being based on overoptimistic macroeconomic and fiscal forecasts or manipulation of cyclically-adjusted indicators.

**21. At the provincial level, fiscal rules should strike the right balance between strengthening the link with debt while protecting provincial public investment**. BC and Quebec should continue to comply with their current balanced operating budget rule. Ontario and Alberta should explore alternative operational rules to replace or support their existing operating budget rules to enhance the credibility of debt reduction as a medium-term fiscal objective. Such options should consider specific sources of fiscal imbalance (excessive current spending or under-taxation) and public investment plans in each province.

[14] See "Second-Generation Fiscal Rules: Balancing Credibility, Flexibility, and Simplicity", IMF Staff Discussion Note, 2018. Canadian pundits also support some form of fiscal anchor to promote greater fiscal transparency and credibility.

[15] See IMF Fiscal Monitor, April 2018. Automatic stabilizers comprise variations in taxes and transfers that occur automatically in response to changes in output and employment.

### Box 1. The First Feminist Budget?

More women participating in the economy is good for growth. Staff's research indicates that real GDP could increase by about 4 percent if the current gap of 7 percentage points between male and female labor force participation were eliminated.[1]

The federal government introduced a series of progressive measures to encourage women to actively participate in the workforce in the 2018 Federal Budget. The measures include: (i) new "use-it-or-lose-it" Employment Insurance Parental Sharing Benefit that provides two-parent families who agree to share parental leave to receive an additional five weeks of leave; (ii) amendments to the *Canada Business Corporations Act* to require federally incorporated firms to make annual disclosures about the diversity of their senior management teams and boards of directors; (iii) new pay equity legislation to ensure that female and male employees in federally regulated businesses receive equal pay for work of equal value; (iv) access to new financing for women entrepreneurs through the Business Development Bank of Canada and Export Development Canada; and (iv) a commitment to introduce legislation to make gender budgeting (GBA+) a permanent part of the federal budget-making process.

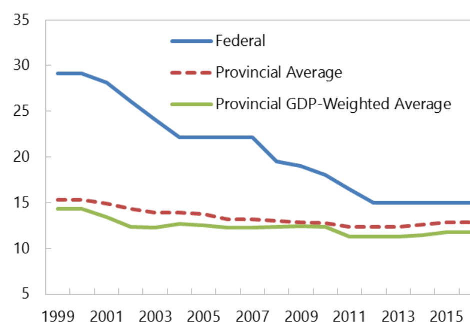
[1] See "Women are Key for Future Growth: Evidence from Canada", IMF Working Paper, IMF/17/166, July 2017, by B. Petersson, R. Mariscal, and K. Ishi.

## B. Rethinking Corporate Taxation in a Changing International Environment

*The 2017 Staff Report recommended that the authorities launch a holistic, independent review of the overall tax system to improve efficiency and preserve Canada's tax position globally. The U.S. tax reform has increased the urgency of moving ahead with the review. The review should weigh the pros and cons of incremental approaches to reform against more radical options for corporate taxation. Any changes should be undertaken in a fiscally responsible way, keeping in mind that corporate taxation is only one of several important determinants of business investment.*

**22. Canada had widened its tax competitiveness edge over the U.S. during the past decade, but this has changed following the U.S. tax reform**.[16]

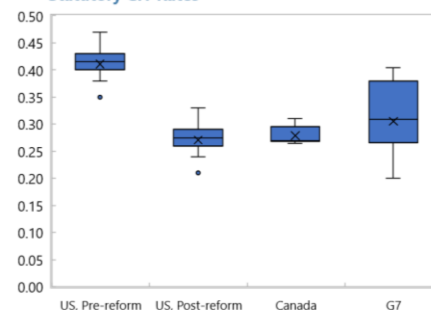
- The average combined (federal and provincial) statutory rate of corporate income tax (CIT) has fallen substantially since the turn of the century, leaving it substantially below the U.S. comparator. Now, however, it is on a par. This potentially impacts both incentives for real investment and profit shifting between Canada and the U.S.



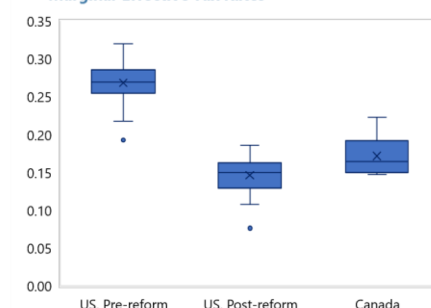

[16] See Selected Issues Paper "Taxing Business in a Changing World", by FAD (Michael Keen, Li Liu and Peter Harris).

- Marginal effective tax rates (METRs)[17] on new investment are generally assessed to have fallen substantially in the U.S. Taking account of sales taxes on capital purchases which (unlike the case under a value added tax) are not recovered by the taxpayer, METRs in the U.S. now seem on average to be broadly comparable with or perhaps somewhat lower than those in Canada.

- It important to bear in mind, however, that METRs provide only a partial story: measures that stimulate investment in the U.S. do not necessarily reduce investment in Canada or elsewhere, and investment decisions may also be independently affected by the statutory rate, since, all else equal, multinationals prefer to base their businesses in locations offering the most attractive tax treatment.




Note: Box height represents inter-quartile range (25th to 75th percentile), the bars indicate minimum and maximum, and the dot represents outlier(s).




Source: IMF staff calculation
Note: Box height represents inter-quartile [25th to 75th percentile], the bars indicate minimum and maximum, and the dot represents outlier(s).

**23. The potential economic and fiscal impact of the U.S. tax reform could be substantial, but the full consequences of the reform are complex, uncertain, and require careful analysis.** Using aggregate cross-country data on asset holdings in Canada, staff estimates suggest that, as a result of changes in the average statutory rate and METR in the U.S., real investment in and profit shifting towards Canada by U.S. companies might fall by around 6 and 15 percent, respectively, and their payments of Canadian CIT by about one-quarter. While there are many caveats and much uncertainty around these aggregate estimates, the scope for potentially significant impact is clear.[18] It will also be critical to take account of novel features of the U.S. reform, beyond the rate cut and immediate expensing, including its international aspects. These features are hard to capture in simple models; some of these could, for instance, make tangible investment abroad particularly attractive for some U.S. companies, and can increase the METR of investing in the U.S. for highly leveraged firms.[19] More generally, stakeholders are still in the process of understanding the U.S. reform: the details are complex, some are not yet fully specified, and some are projected to change over time; and questions have been raised concerning the consistency of some of its provisions with international commitments.

[17] The METR is the amount by which taxation raises the pre-tax rate of return on an investment to generate the minimum post-tax return that the investor requires. Its calculation rests on several assumptions, so figures are indicative rather than exact.

[18] The estimates do not include any possible impact on Canadian investment in, and possible profit shifting to, the U.S.

[19] The former is a consequence of the Global Intangible Low Taxed income (GILTI) and Foreign Derived Intangible Income (FDII) provisions, the latter a consequence of the tighter limits on interest deduction and the Base Erosion and Anti-Abuse Tax (BEAT). The movement towards territoriality in itself may also make Canada more attractive to U.S. investors (in ways that are again not captured in staff's estimation) to the extent that, under the pre-reform system, they expected to face additional U.S. tax upon repatriation of their earnings.

**24. Continuing changes in the global landscape of corporate taxation present a good opportunity for Canada to re-rethink its own system.** The overall tax system has become complex, with changes since 2000 being targeted and iterative rather than comprehensive. While there have been several reviews of aspects of the tax system over the years, staff recommends a careful and independent review of the overall Canadian tax system, weighing the pros and cons of incremental versus more radical approaches, and assessing their revenue implications and potential spillovers to other countries. An incremental approach to strengthen the corporate tax system could include the following considerations:

- ***Strengthening protection against profit shifting, the risk of which is now heightened.*** This might include (1) extending the current thin capitalization rules[20] to apply to all interest paid, including on an arm's length basis and domestically—this would also help address debt bias; and (2) introducing rules for appropriate allocation of interest and other expenses to activities abroad.

- ***Further reducing statutory CIT rates, though this possibility needs to be approached with great caution.*** This would be a direct response to profit shifting,[21] and would also generally reduce METRs. Among the disadvantages of a rate reduction, however, is the windfall benefit that this confers on existing investments. Thus, any rate reduction is best phased-in. Furthermore, close coordination with the provinces—whose rates are comparable to the federal—is needed to assure an appropriate collective response and avoid any worsening of inter-provincial competition. More generally, rate reductions risk intensifying international tax competiton.

- ***Enhancing tax allowances for investment.*** The federal government has continually extended the accelerated capital cost allowance rate of 50 percent for machinery equipment used in manufacturing and processing, which is currently set to expire in 2023. Nevertheless, as international competition to attract investment intensifies, investors may look for treatment comparable to immediate expensing (i.e. increasing the depreciation rate to 100 percent), and indeed this may be more germane for investors than modest differences in statutory tax rates.[22]

[20] Thin-capitalization rules disallow deduction of interest payment for debt above a certain threshold. They can apply to related-party debt owed to nonresidents, which is the current case in Canada; they are then aimed at cross-border "debt shifting", the use of inter-company loans as a tax avoidance device. Alternatively, they can apply to total debt including both related-party and external debt; they are then aimed at 'debt bias', the tax incentive towards excess reliance on all kinds of debt, including third party loans.

[21] One recent estimate is that a 10-percentage point difference between the domestic CIT rate and the average foreign rate reduced profits by 12 percent (Beer, Sebastian, Ruud de Mooij and Li Liu, 2018. "International Corporate Tax Avoidance: A review of the Channels, Effect Sizes, and Blind Spots," forthcoming IMF Working Paper).

[22] One meta-study concludes that a 10-percentage point reduction in a country's METR increases its stock of FDI, on average and in the long run, by 40 percent (De Mooij, Ruud and Sjef Ederveen, 2008. "Corporate tax elasticities: a reader's guide to empirical findings," Oxford Review of Economic Policy).

**25. A more radical approach would change the structure of the CIT system.** Possible elements include: (i) converting the CIT into a form of rent tax so that the METR is zero and there is no corporate-level distortion to investment or between debt and equity financing. This could be achieved by, for instance, moving to a cash-flow system through immediate expensing and removing interest deductibility; or by adopting an Allowance for Corporate Equity (ACE) system, that provides a deduction for the notional cost of equity alongside continued interest deductibility;[23] (ii) removing or scaling back the current system of dividend tax credits, which is unduly generous for income earned abroad (likely to have paid no Canadian tax), aims to relieve a burden that shareholders may not bear (in a highly open economy, a larger part of the burden of the CIT may fall on immobile factors, such as labor), and may do little to encourage domestic investment.

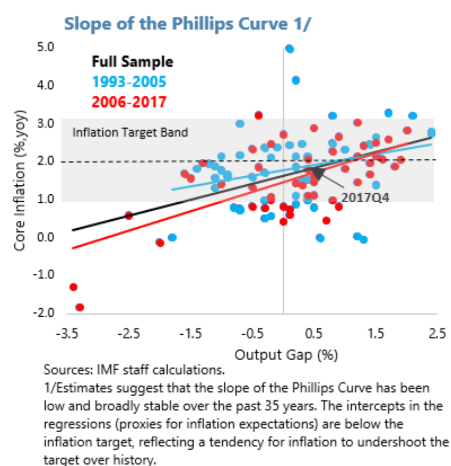
**26. As the ideal, staff would recommend that Canada overhaul its current system to remove distortions, but such a radical approach would be politically difficult in the short term.** An alternative is an incremental approach that is consistent with the long-term vision of a rent tax (e.g. more generous depreciation plus tighter limits on interest deduction) while guarding against immediate revenue risks. Ultimately, the choice will depend on the revenue implications of the reform and the political appetite for change.

## C. Monetary Policy

*The monetary policy tightening phase should remain gradual given below-target core inflation and the balance of risks around the outlook.*

**27. The monetary policy stance has been appropriate.** The output gap entered positive territory in 2017 and resources are becoming more stretched, as evidenced by high capacity utilization and employment, and rising core inflation. Nevertheless, inflationary pressures remain well contained with core inflation measures still sitting slightly below the central target, reflecting a combination of slow transmission of demand into inflation and a tendency for inflation to undershoot the target. While a tightening phase was initiated in July last year (with the policy rate being raised 3 times so far), monetary policy settings remain accommodative, reflecting the balance of risks around the outlook and below-target core inflation.

**Slope of the Phillips Curve 1/**




Sources: IMF staff calculations.
1/Estimates suggest that the slope of the Phillips Curve has been low and broadly stable over the past 35 years. The intercepts in the regressions (proxies for inflation expectations) are below the inflation target, reflecting a tendency for inflation to undershoot the target over history.

[23] On cash flow taxes, see Auerbach, Alan J., Michael P. Devereux and Helen Simpson (2008). "Taxing Corporate Income", NBER Working Papers #14494; and Auerbach, Alan J., Devereux, Michael P., Keen, Michael and Vella, John (2017), "Destination-Based Cash Flow Taxation," Oxford University Centre for Business Taxation WP 17/01. On the ACE, see Klemm, Alexander (2007), "Allowances for Corporate Equity in Practice," CESifo Economic Studies; and Michielse, G., R. de Mooij, and C. Van Peteghem (2015). Allowances for Corporate Equity, In Tax Design Issues Worldwide, Kluwer Law International.

**28. The tightening phase should proceed with caution.** Further monetary tightening is warranted, but policy normalization should be gradual. Tighter monetary policy would help activity converge toward more sustainable levels and build much-needed policy space for future downturns. However, against the backdrop of elevated levels of uncertainty emanating from U.S. tax and trade policies, there is merit in pursuing a more gradual tightening phase. In this context, if there is further escalation of trade tensions that results in a sharp increase in tariffs on imports, the central bank will have to evaluate the temporary inflationary impact of higher tariffs against the prospect of a persistent fall in output. The Bank of Canada will have to be prepared to cut the policy rate in the event the deteriorating growth outlook causes inflation expectations to fall below target. Staff's baseline scenario projects a gradual increase of the policy rate towards its neutral level (around 3 percent) over the projection horizon.

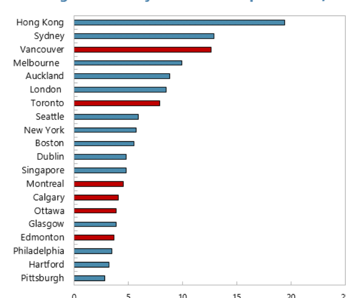
## D. Financial Sector Policy

*Macroprudential measures currently in place appear to have contributed to a cooling in the housing market. They should be complemented by a broad set of supply-side policies to address affordability concerns and more durably manage housing market imbalances over the long run. Potential and emerging risks in the financial sector require coordinated monitoring.*

**29. The federal government has introduced a raft of macroprudential measures over the last ten years to preempt complacency regarding risk-taking by financial institutions and to tackle growing housing market imbalances that could undermine financial stability.**[24] The measures were initially aimed at the insured market and helped reduce the government's exposure to the housing sector. In early 2018, OSFI tightened the underwriting requirements for low-ratio mortgages to stem rising risk in the uninsured market. Low-ratio mortgages are now subject to: (i) a new stress test for mortgage interest rates; (ii) LTV measures and lenders' internal limits that reflect housing markets risks, to be updated as housing markets and the economic environment evolve; and (iii) restrictions on combining mortgages with other lending products (e.g. co-lending arrangements) that could circumvent LTV limits (Annex III). Overall, these measures have kept mortgage credit growth at moderate levels and slowed the pace of house price inflation.

**30. In addition to financial stability concerns, the rapid rise in housing prices has led to worsening housing affordability, posing a major problem to some of Canada's most dynamic metropolitan regions.** Although Canada's overall affordability indices are not among the worst globally, the Toronto and Vancouver regions are becoming severely unaffordable. This raises not only important social concerns, but also economic ones, as worsening affordability works against attracting and keeping talent in the most dynamic urban centers.

Housing Affordability - Median Multiple Index 1/



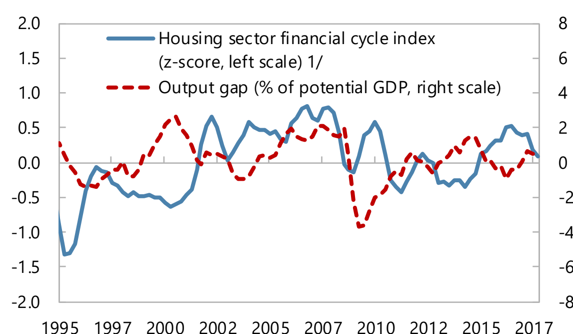

Source: 14th Annual Demographia International Housing Affordability Survey (2017: 3rd Quarter).
1/ Median Multiple is the median house price divided by the median household income: Affordable 3.0 and under, Moderately Unaffordable 3.1 to 4.0, Seriously Unaffordable 4.1 to 5.0, Severely Unaffordable 5.1 and over.

[24] See 2017 Selected Issues Papers, "Macroprudential Tools at Work in Canada", by Z. Arvai, I. Krznar, and Y. Ustyugova.

**31. The BC and Ontario governments have taken tax and other measures to stem speculative activity and improve affordability in their major cities**. A 15 percent non-resident property transfer tax was introduced for the Toronto and Vancouver areas between 2016–17.[25] In January 2018, BC increased the tax to 20 percent and expanded its geographic coverage. BC also announced that it plans to introduce a new speculation tax that targets foreign and domestic speculators who own residential property in BC but do not pay income taxes in BC, including those who leave their units vacant.[26] The measures have mainly targeted non-resident buyers, reflecting a perception that these buyers have significantly boosted price pressures in the Vancouver and Toronto areas. In addition, Canada's recent AML/CFT assessment also noted that the real estate sector, including in Vancouver, faced a higher risk of money laundering.

**32. At this point, current macroprudential measures aimed at containing housing-related financial sector risks appear to be sufficient.** The gap between the financial and business cycle has closed, and the previously overheating markets have cooled significantly. In addition, the BIS early warning indicator for domestic banking risks shows Canada's credit to GDP gap declining from to 15.4 percentage points in 2016Q3 to 9.6 percentage points in 2017Q3.[27] The authorities should therefore hold off on any new macroprudential measures. If housing vulnerabilities continue to rise, the authorities should consider introducing loan-to-income limits in line with previous staff advice.

**Canada: Business Cycle and Housing Cycle**




Source: IMF staff estimates
1/ Measured as average of house price growth, residential mortgage credit growth, real investment growth (all standardized z-score) and a deviation in the residential mortgage credit to GDP ratio from its historical trend.

**33. Targeting broad-based measures would be more effective than measures aimed solely at non-resident home buyers to alleviate affordability and social concerns.** Recent data show that non-resident homeowners represent only a small fraction of the existing housing stock in Vancouver and Toronto, potentially limiting the effectiveness of the BC and Ontario property transfer taxes. Indeed, model-based evidence suggests that

**Share of Non-resident Owned Properties by Select Property Types**
(Percent)

| House Type | Vancouver CMA | Toronto CMA |
|---|---|---|
| Single-detached | 3.2 | 2.1 |
| Semi-detached | 3.3 | 2.6 |
| Row | 3.4 | 2.9 |
| Condominium | 7.9 | 7.2 |
| All | 4.8 | 3.4 |

Source: IMF staff calculations.

[25] The tax amounts to a capital flow management measure (CFM) because it discriminates between residents and non-residents of Canada and limits capital flows. Staff recommends alternative measures as suggested in paragraph 33 that are in line with the IMF's Institutional View on the Liberalization and Management of Capital Flows.

[26] The speculation tax will be subject to a series of thresholds, exemptions and geographic refinements to focus the tax on people who own multiple homes that are left empty in overheated markets. Staff is assessing whether the measure constitutes a CFM, but further information from the authorities is needed to conclude the assessment.

[27] See BIS 2018Q1 report, page 38.

targeting property tax rates at non- residents alone—instead of all homebuyers—would require greater swings in tax rates to achieve desired objectives.[28] As such, to the extent that speculators are found to be driving excessive house price inflation, tax measures targeting the speculative demand of *residents and non-residents* alike would likely be more effective than targeting demand from non-residents alone. Finally, addressing the deficiencies noted in Canada's AML/CFT assessment should help mitigate the money laundering risks in the real estate sector.

**34. More fundamentally, a broad set of supply-side policies are needed to improve housing affordability.**[29] A crucial step is to coordinate transportation, immigration and housing supply strategies in the most affected areas, particularly in the region around Toronto and Vancouver. Urban planning and zoning should promote the efficient use of land in denser urban settings and speed up housing delivery (Box 2). There is also a need for more purpose-built rental housing in the fast-growing areas. BC and Ontario should assess whether the current funding and tax incentives for purpose-built rental developments are effective in achieving their objectives, and whether expanding them would contribute to greater supply.

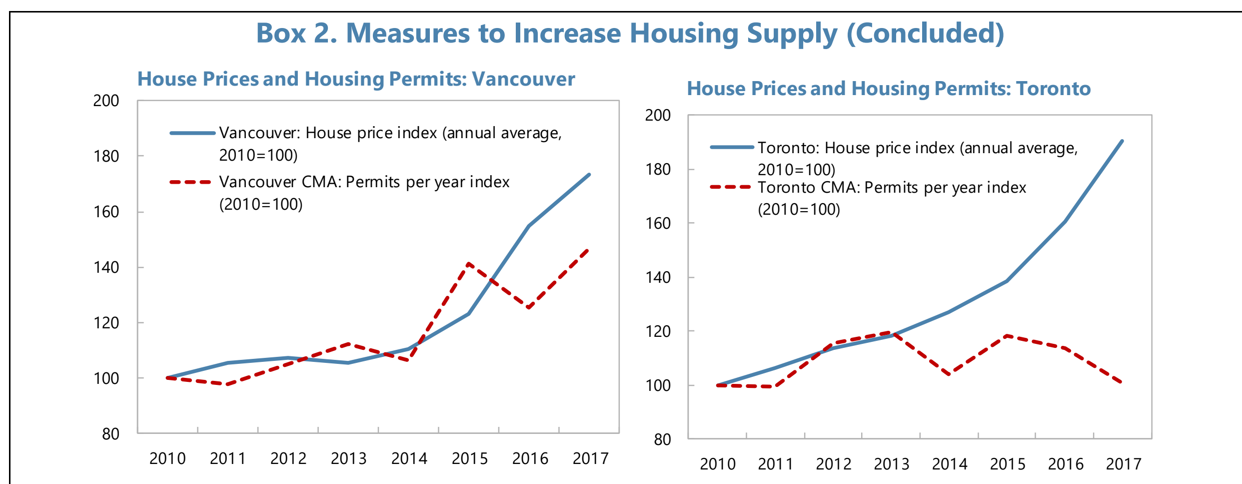
### Box 2. Measures to Increase Housing Supply

Increasing the housing supply and improving affordability require increasing urban density and better land use in the Greater Toronto Area and Greater Vancouver Area. The supply of housing has not kept up with the demand in these areas. The following measures could contribute to a more effective housing supply response:

- Accelerating the delivery of land ready for development by municipalities and providing better and timely data about land availability
- Shortening the approval process for building permits and re-zoning, aided by modernizing the building approval system and increased personnel
- Improving the transparency and certainty about the timelines of the steps involved in the development approval process
- Providing greater certainty to developers: if an application meets the conditions of the designated zone where planning permission is being applied, permission must be granted.
- Development plans should be time-limited to avoid construction delays
- Re-evaluating rent control policies to ensure that they do not constrain rental property supply
- Assessing the current funding and other incentives for purpose-built rental with a view to encourage a more balanced mix of rental supply
- Further improving regional coordination among municipalities on transportation and housing supply strategies

[28] The results also show that macroprudential policy might be more effective than property tax policy in achieving overall macroeconomic and financial stability. Specifically, significant swings in tax rates are required to achieve similar outcomes to macroprudential policy actions involving relatively minor changes in LTV limits. See Selected Issues Paper "Balancing Financial Stability and Housing Affordability: The Case of Canada".

[29] See Selected Issues Paper "How to Improve Affordability in Canada's Dynamic Regions?".




**35. Close monitoring and improved coordination and information exchange between federal and provincial regulators are required to mitigate other potential and emerging risks to financial stability:**

- The increasing use of HELOCs may contribute to a rise in household vulnerabilities as the revolving part of these loans do not require the principal to be repaid on a fixed schedule. Regular monitoring and assessment of HELOC's role in housing finance, including that of the purpose of HELOCs is important, particularly ensuring that they are not used for circumventing LTV rules.

- There is a risk that the stricter qualifying requirements for uninsured mortgages may lead to some borrowers turning to lenders that are not subject to the same regulation. These lenders accounted for about 6 percent of new mortgage lending in Ontario in 2017, and their total assets are around C$10-15 billion nationally. Although small and constrained by limited funding sources, monitoring developments in this sector is needed. Similarly, vigilance is needed for credit unions' mortgage lending in case they do not follow the tightened requirements of the federal regulator.

- The Canadian ETF market has grown quickly in recent years, reaching C$153 billion assets under management by April 2018. While ETFs bring benefits to investors by lowering cost, enhancing price discovery and facilitating hedging and diversification, they may contribute to a rise in cross-asset correlations during periods of stress, thus increasing contagion risk. Although the size of riskier market segments, such as ETFs with less liquid underlying assets and synthetic ETFs is relatively small in Canada, regulators should closely monitor and assess exposures and ensure that financial institutions maintain robust risk management standards.

**36. The Office of the Superintendent of Financial Institutions' (OSFI) has updated several regulatory initiatives in the areas of liquidity and capital requirements.**

- The implementation of the Net Stable Funding Ratio was postponed from January 2019 to January 2020 based on implementation progress at the international level.

- OSFI is studying potential adjustments to the capital regime with the view to increase transparency in Pillar 2 capital buffers. OSFI's objective is to increase the likelihood that the capital that is already built up will be drawn as intended in case of a stressed event in the future.

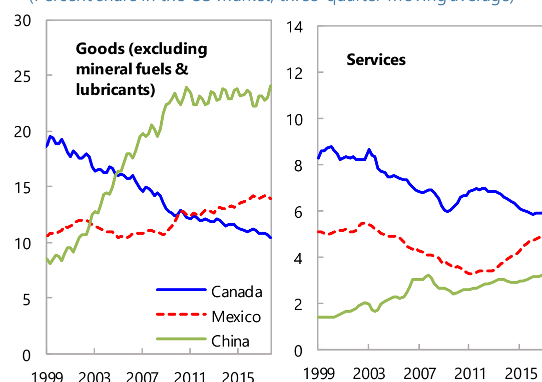
**37. The upcoming Financial Sector Assessment Program will conduct a more comprehensive assessment of the financial sector.** The assessment will focus on these emerging risks and the quality of prudential regulation and supervision.

## E. Trade Policy

*The Canadian non-energy export sector has been losing competitiveness for some time. While Canada is a relatively open economy, there is still room to improve trade policies to help restore competitiveness and attract more foreign direct investment.*

**38. Canadian exporters have been losing competitiveness for some time, and the recent overvaluation of the real effective exchange rate has not helped (Annex I).** Since the middle of the 1990s, the market share of Canadian goods (excluding resource products) in the U.S. has halved to about 11 percent. Canada's competitive advantage in the service sector has also been dwindling, as Mexico and China are catching up. Accordingly, the share of total exports (excluding resource exports) to GDP has dropped from over 40 percent in the late 1990s to around 30 percent today.

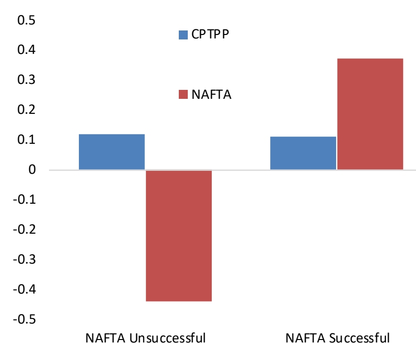
**U.S.: Imports from Canada, Mexico, and China**
(Percent share in the US market, three-quarter moving average)




Source: U.S. Census Bureau.

**39. A NAFTA agreement should be reached within a reasonable timeframe.** Uncertainty related to North American trade relations is impacting business decisions in Canada and weighing on investment, particularly in the export sector. While there has been some progress in modernizing NAFTA by incorporating a new digital trade chapter, several proposals put forward by the U.S.—notably, minimum U.S. content requirements, eliminating the investor-state dispute resolution framework, a cap on government procurement, and a five-year sunset clause—represent major points of contention for the negotiations. On the other hand, the U.S. has objected to the Canadian system of supply management of the dairy sector that

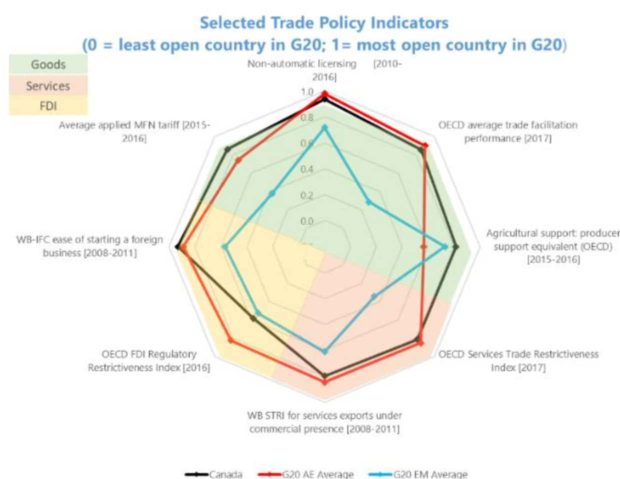
**Canada: Impact of CPTPP and NAFTA 1/**
*(percent change in real GDP)*




Source: IMF staff estimates.
1/ Unsuccessful NAFTA is a reversion to MFN rates and a 2 percent increase in non-tariff costs. Successful NAFTA assumes a 1 percent increase in goods-trade efficiency, a 25 percent improvement in services-trade efficiency, and a reduction in compliance costs related to rules of origin provisions.

imposes very high tariff rates for imports above a certain volume.[30] Significant uncertainty surrounds both the outcome of the negotiations and the timeframe for an outcome. Reaching an agreement that further opens trade and promotes competition within a reasonable timeframe would alleviate uncertainty and reduce the risk of a more prolonged period of subdued investment. Staff estimates suggest that successful negotiations could boost output by around 0.4 percent.

**40. The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) offers Canada the opportunity to diversify its export sector and tap new sources of growth.** CPTPP was signed by 11 countries in March 2018, representing a positive signal for global trade relations.[31] The countries covered by the agreement constitute around 13 percent of global output, making the agreement one of the broadest of its kind globally and comparable in breadth to the EU-Canada Comprehensive Economic and Trade Agreement (CETA) which entered into force in September 2017. Canada should quickly ratify the agreement to seize on the potential benefits offered by greater market access and export diversification and to help mitigate risks associated with NAFTA negotiations. Staff estimates suggest that the successful implementation of CPTPP could boost Canada's output by around 0.1 percent, irrespective of the outcome of NAFTA negotiations.




**41. In addition, more can be done to attract FDI and innovative technologies that are conducive for trade.** Canada is at the forefront in open trade regulation when compared with other G20 economies. Nonetheless, Canada has relatively more restrictive FDI regulations. Reducing these restrictions can help mitigate the impact from US tax reforms. For instance, the OECD reports prohibitive limits on foreign equity ownership[32] in key non-manufacturing sectors and preferential

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[30] Canada's dairy sector is regulated through a domestic system of supply management that operates through: production controls, price controls (according to the OECD, milk prices received by Canadian farmers, were on average, 7 percent higher in 2-13-15 than those observed in world markets), and import controls (a system of "tariff-rate quotas" allows a fixed volume of imports at low tariff rates, about 7.5 percent, but the marginal tariff rates for imports above the quotas are prohibitively high at over 240 percent).

[31] The countries covered by the agreement are: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam.

[32] Foreign investments are subject to review and approval under the Investment Canada Act (ICA). There are restrictions to foreign ownership in several sectors including telecom, broadcasting, financial services, commercial aviation, energy, fishing, and mining. In addition, there are regulatory barriers targeted at foreign suppliers in fixed and mobile telecom, maritime and air transport, film and video distribution, book publishing, broadcasting, uranium mining, fishing, patenting and trademarking, customs brokering, and other professional services (e.g. accountancy, architecture, engineering and legal professions).

treatment given to domestic firms and suppliers.[33] Regulations that overly restrict competition could slow the diffusion process of the latest production technologies across borders to generate more trade.[34]

**42. On the domestic front, inter-provincial trade barriers should continue to be reduced under the Canadian Free Trade Agreement (CFTA).** In April 2017, the CFTA modified government procurement rules to allow equal access to firms across provinces, made domestic regulations compatible with international agreements, and lowered the barriers of goods and services. The CFTA also establishes a Regulatory Reconciliation and Cooperation Table to address remaining barriers and commit to the future liberalization of selected sectors, including financial services. Fulfilling these commitments are important, but it is also critical to address large remaining domestic trade, labor mobility, and business registration barriers outlined in the over 135 pages of exemptions included in the CFTA. Although local legislation such as the *Cutting Unnecessary Red Tape Act* in Ontario can help, the authorities should strive for the eventual standardization of regulation at the national level. Federal leadership will be vital to make meaningful progress in future negotiations.[35]

## F. Structural Reform: Infrastructure, Innovation, and Immigration

*Tax reform alone will not address stagnant labor productivity growth and improve Canada's medium-term growth prospects. Structural reforms are necessary complements to addressing this issue and should remain a key objective of the government's growth agenda.*

**43. Weak labor productivity has been a drag on Canada's long-term growth potential.** Canadian productivity growth has averaged only 1 percent since 2000, compared with almost 2 percent in the United States over the same period (Figure 9). A smaller domestic market, limitations to scalability producing a high concentration of small less productive firms,[36] regulatory barriers to FDI and inter-provincial operations, and a shortage of the skills necessary to cope with the increasing demands of a knowledge-based economy imply that Canada may have failed to benefit from the same wave of technology adoption that was driving productivity growth up in the U.S. and other high-growth OECD countries during the early 2000s.

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[33] For example, foreign suppliers face restrictions when participating in public procurement contracts. Sectors with foreign participation restrictions in procurement include transportation services, computer services, construction, telecom, and professional services.

[34] See Chapter 4 "Is Productivity Growth Shared in a Globalized Economy?" of the World Economic Outlook, April 2018. IMF.

[35] The 2018 Federal Budget has allocated $11.5 million over the next three years to review regulatory burden on innovation and business investment. The federal government has also committed to introducing legislation and an e-regulation system to streamline legislative burden on businesses.

[36] In Canada, small businesses (with employment less than 100 persons) make up 70 percent of total employment in the private sector (Source: Industry Canada, 2013, Key Small Business Statistics). Tax incentives take the form of lower corporate tax rates and higher R&D investment tax credit.

**44. Since taking office in 2015, the government has made revitalizing Canada's productivity growth and investment a key component of its growth agenda.** Staff estimates and academic research show that product market competition, immigration, and infrastructure investment can have meaningful GDP impact. The authorities have launched several new initiatives in these areas, including:[37]

- Laying out a long-term infrastructure plan and establishing new institutions, such as the Canada Infrastructure Bank (CIB) and Invest in Canada Hub, to facilitate infrastructure investment and foreign direct investment.

- Launching an Innovation and Skills Plan (2017 Federal Budget),[38] the Venture Capital Catalyst Initiative, and the Super Cluster Initiative.[39]

- Creating a Strategic Innovation Fund, allocating additional funds to Statistics Canada to develop data for program performance evaluations, establishing a central performance evaluation team at the Treasury Board, and launching targeted reviews of regulatory burden for innovation activity.

- Raising immigration targets to 300,000 new residents in 2017, and as part of a wider set of measures to boost competitiveness, raising the target further to 340,000 in 2020, roughly 1 percent of the population.

**Medium-Term GDP Impact of Selected Structural Reforms**

*(Percent)*

| Structural Reform | GDP Level Impact |
|---|---|
| Product markets reform 1/ | 1.5 |
| Immigration policy 2/ | 0.2 - 2 |
| Infrastructure plan 3/ | 1.2 |

1/ "Time for a Supply-side Boost? Macroeconomic Effects of Labor and Product Market Reforms in Advanced Economies." WEO Chapter 3, IMF April 2016.
2/ Staff estimates and Jaumotte, F., K. Koloskova, and S. C. Saxena. "Impact of Migration on Income Levels in Advanced Economies." Spillover Note No. 16/8, IMF October 2016.
3/ Ishi, K., R. Mariscal, and D. Gentry. "Estimating the Growth Effect of Infrastructure Spending." Selected Issues and Analytical Notes, Country Report No. 17/211, IMF July 2017.

**45. Innovation initiatives are welcome but public support should be stage-gated conditional on performance**. Full and effective implementation of innovation programs will require coordination between federal and provincial governments to reduce overlaps, competing objectives, and other inefficiencies. In this regard, the consolidation of various small-scaled innovation programs into a simplified but larger Strategic Innovation Fund is welcome.[40] Furthermore, a strong monitoring and evaluation framework is critical to ensure that Supercluster projects are selected based on arms-length criteria.

[37] The Minister of Finance also established the Advisory Council on Economic Growth in March 2016 to solicit ideas from the private sector and academia. The council comprises 14 members, including Canadian and international business, finance executives, and academia.

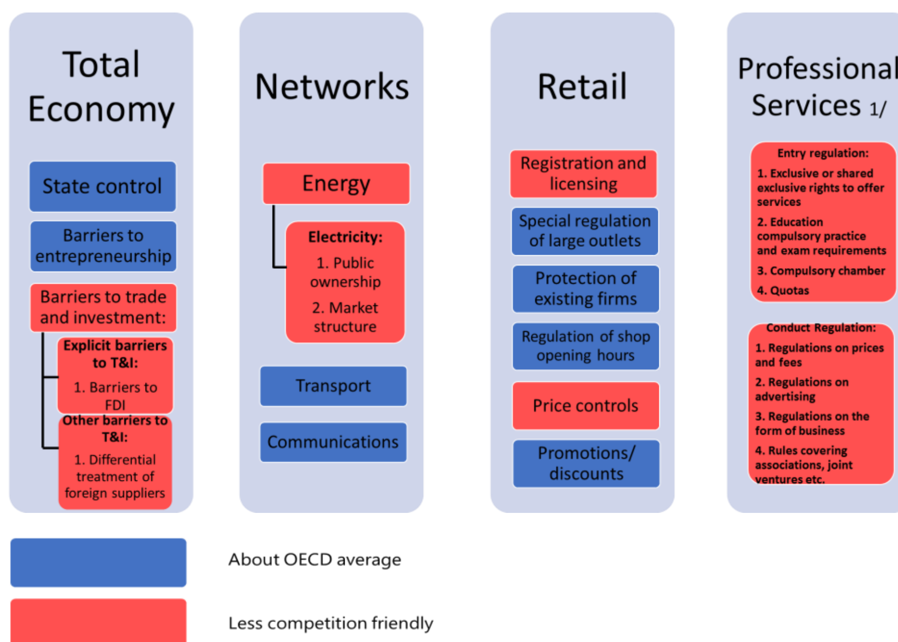
[38] Recent programs include Innovative Solutions Canada, which promotes government consumption of R&D heavy goods, a Pan-Canadian Artificial Intelligence Strategy aimed at attracting top-talent on the subject, and a program aimed at identifying skill gaps and development opportunities.

[39] The five superclusters were selected in February 2018. These include the Ocean Supercluster in Atlantic Canada; the AI-Powered Supply Chains Supercluster in Quebec; the Advanced Manufacturing Supercluster in Ontario; the Protein Industries Supercluster in Manitoba, Saskatchewan, and Alberta; and the Digital Technology Supercluster in British Columbia.

[40] The Strategic Innovation Fund intends to gather $1.26 billion funds over five years, including $1.06 billion from consolidating de-centralized programs.

**46. Infrastructure investment can be more efficient.** The implementation of the long-term infrastructure program is underway, but about $4.8 billion (equivalent to 0.2 percent of GDP) planned for FY2016–18 has been deferred to FY2019 and beyond, in part reflecting complexities in contracting projects and a delay in funding requests from sub-national governments. However, the government's commitment to $95.6 billion (3.6 percent of GDP) in infrastructure spending through FY2028 remains intact. To improve infrastructure delivery, information on project plans from all levels of government should be consolidated and the use of common standards of project evaluation expanded. With the appointment of a new CEO, the Canada Infrastructure Bank should move expeditiously to attract private sector and institutional investment to new revenue-generating infrastructure projects.

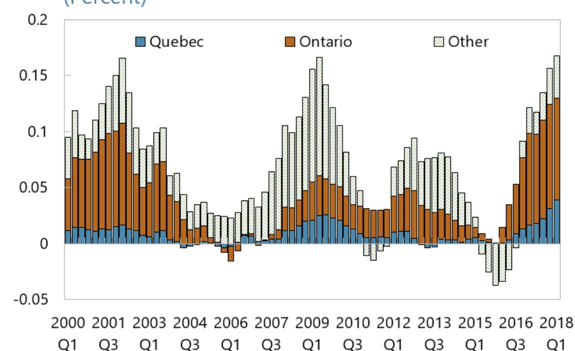
**47. Further deregulation in product markets would increase firms' incentives to invest, enhance efficiency, and innovate**. Restrictive regulatory practices persist in some sectors, particularly in electricity, air transport, retail distribution and professional services. For example, a high degree of vertical integration in electricity markets has kept prices high, while onerous licensing and registration requirements, price controls, and operational restrictions on retail outlets, have limited the entry and exit of firms in the retail and professional services sectors. Importantly, product market reforms have been found to achieve gains for both entrants and incumbents, boosting the political case for more ambitious reform.[41]



1/ Intensity of regulation varies by profession.
Source: OECD.

[41] Gal, P and A. Hijzen "The Short-Term Impact of Product Market Reforms: A cross-country firm-level analysis" IMF, 2016

**48. Immigration policies can help counteract population aging and strengthen the labor force.** Numerous studies have documented the positive impact on productivity growth, and dispelled the notion that new immigrants place downward pressures on the wages and employment rates of domestic workers.[42] Maintaining the annual immigration target is a sensible approach to manage shortages in the skilled labor force and boost Canada's long-term growth prospects. Indeed, staff estimates suggest that raising annual immigration to the 2020 target would raise real GDP by a cumulative 0.15 percent.



Sources: CANSIM Table 051-0020 and staff calculations.

**49. Nevertheless, immigrant flows need to be carefully managed to maintain public support for the program**. Recent immigrants have flocked to urban areas in Quebec and Ontario, and overall inflows will account for 100 percent of the country's population growth by 2033.[43] Large concentrated flows can create short-term pressures on local labor and housing markets, and the communities' social and physical infrastructure. The success of Canada's immigration system hinges on its ability to integrate immigrants into local communities without jeopardizing existing Canadians' access to high living standards (e.g. quality education, health care, job opportunities, and affordable housing). This will require improving the labor market outcomes of immigrants and expanding regional absorptive capacity.[44] Regionalization would help support smaller communities, while relieving the pressures in urban areas that receive large numbers of immigrants.

# AUTHORITIES' VIEWS

**50. The authorities broadly agree with staff's macroeconomic outlook.** The economy is operating close to capacity, and output growth is expected to moderate to around 2 percent in 2018 and 2019. The authorities view the risks to the outlook as being largely balanced. The shift toward protectionist global trade policies by the U.S. is considered the most important downside risk to the

[42] See for instance Peri, Shih and Sparber (2015) "STEM Workers, H-1B Visas, and Productivity in US Cities" and Jaumotte, Florence, Ksenia Koloskova, and Sweta C. Saxena (2016) "Impact of Migration on Income Levels in Advanced Economies." Jaumotte et al (2016) find that a one percent increase in the share of migrants in the working age population can boost GDP per capita over the long term by up to 2 percent, with both low and high skilled workers having positive growth effects.

[43] See "450,000 Immigrants Annually? Integration is Imperative to Growth", The Conference Board of Canada 2017.

[44] The authorities have taken several initiatives to improve labor market outcomes and expand absorption capacity. The initiatives have included adjusting the talent-based selection criteria, increasing language proficiency standards, requiring an Educational Credential Assessment to qualify for certain immigration programs, increasing settlement aid spending, improving pre-arrival services, passing fairness legislation to improve access to regulated professions, providing employers and provinces a greater role in the immigrant selection process, and offering more permanent residence pathways for temporary residents for high-wage earners.

outlook. On the other hand, stronger-than-expected U.S. growth in the near term could provide more support for investment and exports.

**51. The authorities are committed to maintaining a downward deficit and debt ratio track**. They agree that provinces with high deficits or debt should pursue fiscal consolidation more forcefully. The authorities note that the medium-term federal fiscal plan appropriately balances the need to consolidate against the government's growth objectives.

**52. The authorities agree that further increases in the policy interest rate are warranted to keep inflation on target.** The Bank of Canada will take a gradual approach to withdrawing monetary policy stimulus, guided by incoming data.

**53. The authorities acknowledge the need to carefully assess the impact of the U.S. tax changes and wider international tax developments, and will continue to review key elements of the Canadian tax system.** The authorities highlight that the implications of the U.S. reform are complex – with a substantial rate reduction, but also base broadening and structural changes which offset a sizable portion of the reduction in revenue terms. They emphasize that the Canadian system remains attractive in many ways, especially when considering U.S. state sales taxes that apply on the purchase of many capital assets. They also note that the impact of the reform on profit shifting could be less severe than suggested by staff estimates, which are based on aggregate statistics and do not account for a number of important features of the U.S. reform.

**54. The authorities agree that macroprudential policy settings are broadly appropriate.** They noted that current measures appear to be having their desired effect on financial sector risks stemming from the housing market. Nevertheless, they acknowledge that if the household indebtedness and housing vulnerabilities continue to rise, additional measures may be required. The authorities also agree that supply-side policies are needed to better manage housing affordability concerns and housing market imbalances over the long term.

**55. The authorities are of the view that the existing informal macroprudential and crisis management frameworks and supervisory approaches are appropriate.** They acknowledge the risk of regulatory fragmentation but argue that the current delineation of responsibilities between federal and provincial regulators is appropriate, where each jurisdiction has full responsibility for the supervision and oversight of financial institutions under their purview.

**56. The authorities broadly concur with staff's recommendations on trade and structural issues.** They are committed to continuing to negotiate with their NAFTA partners to achieve a new agreement. Canada is disappointed with the recent move by the U.S. to impose tariffs on steel and aluminum imports. The authorities agree that CPTPP should be ratified and implemented as soon as possible. Acknowledging that the regulatory burden on businesses needs to be reduced, the 2018 budget announced a regulatory reform agenda focused on supporting innovation and business investment, including undertaking targeted reviews to identify bottlenecks to growth.

# STAFF APPRAISAL

**57. With growth above potential, the priority of fiscal policy should be on rebuilding buffers.** Provinces, especially those running high deficits or with debt, should restore fiscal discipline and take the lead in implementing more ambitious fiscal adjustments. At the federal level, the overall size of the planned adjustment is appropriate, but it could be frontloaded to build buffers faster. If the economy overperforms, a larger portion of windfall gains could be used for deficit and debt reduction. Rebuilding fiscal space creates room in the budget to finance policies that promote growth and reduce income inequality, and to enhance the economy's resilience to adverse shocks.

**58. To demonstrate a commitment to well-managed public finances, the fiscal framework could explicitly incorporate fiscal rules.** The federal fiscal rule could include both a debt rule to anchor the course of medium-term fiscal policy, with the aim of reducing net federal debt to less than 30 percent of GDP as envisaged in the Budget 2018 forecast, and operational rules to guide annual budget decisions. Provincial fiscal rules should consider the sources of budget deficits and strike the right balance between stabilizing debt levels and protecting public investment. Given their current fiscal positions, the establishment of fiscal rules is most urgent for Ontario and Alberta.

**59. It is time to carefully rethink corporate taxation to improve efficiency and preserve Canada's position in a rapidly changing international tax environment.** This requires a holistic review of the tax system, which Canada has not had for some time. The review should weigh the pros and cons of incremental approaches to change against more radical options. Any changes should be implemented in a fiscally responsible way, bearing in mind that corporate taxation is only one of several important determinants of business investment.

**60. Monetary policy should be tightened gradually.** The monetary policy stance is still accommodative and higher interest rates will ensure core inflation remains close to target. Nevertheless, the balance of risks around the outlook warrants gradual policy normalization. In this context, the Bank of Canada's approach is appropriate.

**61. Macroprudential measures are sufficient for now but continued vigilance is needed.** Current measures appear to be containing housing-related financial sector risk, but the large stock of household debt means vulnerabilities will remain. If housing risks continue to rise, new lending by banks should be subject to loan-to-income limits. At the same time, coordinated monitoring between federal and provincial regulators is required to mitigate other potential and emerging risks to financial stability, including the increasing use of home-equity lines of credit, the rise of less regulated mortgage lending, and the rapid growth in exchange-traded funds. Improving access to beneficial ownership information and financial intelligence, in line with Canada's recent AML/CFT assessment, would help mitigate money laundering risks in the real estate sector.

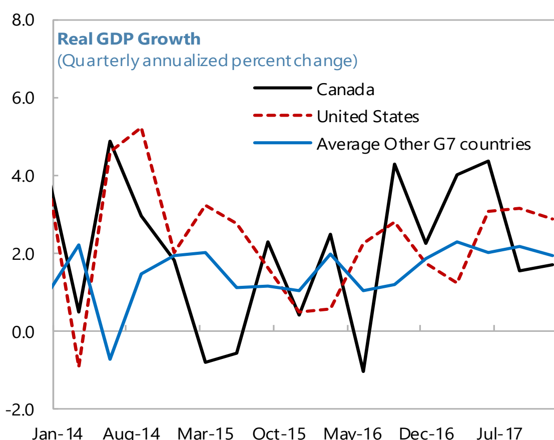
**62. A broad set of tax and supply-side policies is needed to durably manage housing affordability concerns.** Addressing housing supply issues will require complementary transportation, immigration, and housing strategies at all levels of government. Greater emphasis

should be given to increasing urban density and accelerating the delivery of land ready for development. This would require shortening the approval process for building permits and re-zoning applications, and re-evaluating rent control policies to ensure that they do not constrain rental property supply. Current funding incentives should be assessed to make sure that the right type of housing supply is being developed to meet affordability objectives. In addition, tax measures to mitigate speculative demand should be broad-based rather than targeted at non-residents alone.

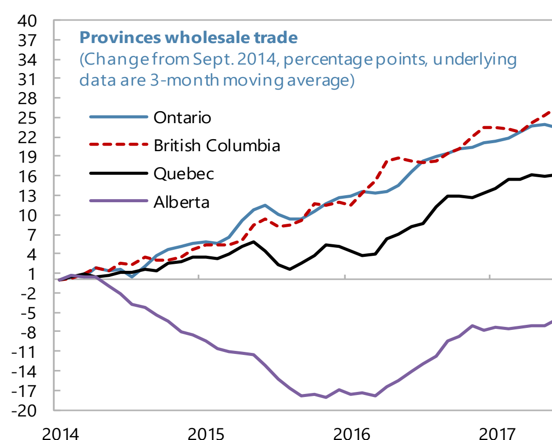
**63. Trade policies and structural reforms targeted at boosting productivity and medium-term growth should remain a key focus of the government's policy agenda to enhance Canada's competitiveness.** Canada and its partners should continue to work constructively to modify, within a reasonable timeframe, the NAFTA in ways that further improve trade opportunities and promote competition; CPTPP should be ratified quickly. Federal and provincial governments should do more to reduce inter-provincial barriers to trade and labor mobility, approve new infrastructure investment, and further deregulate product markets to help attract much-needed foreign direct investment. Innovation programs, such as the Supercluster Initiative, should have clear performance targets and government funding should be made conditional on performance. Immigration policies should continue to focus on improving the labor market outcomes of immigrants, expanding regional absorptive capacity, and facilitating the integration of immigrants into local communities.

## Figure 1. Canada: Solid Growth

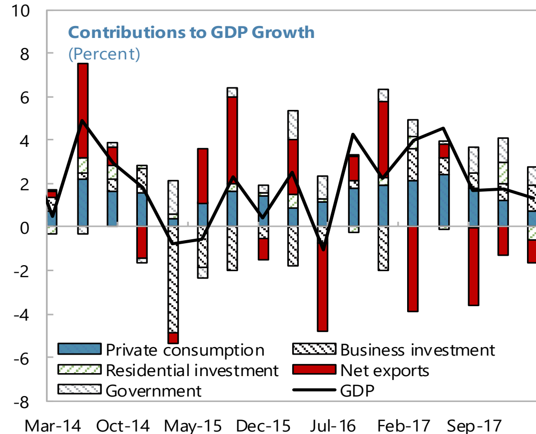
*The Canadian economy expanded strongly in 2017...*



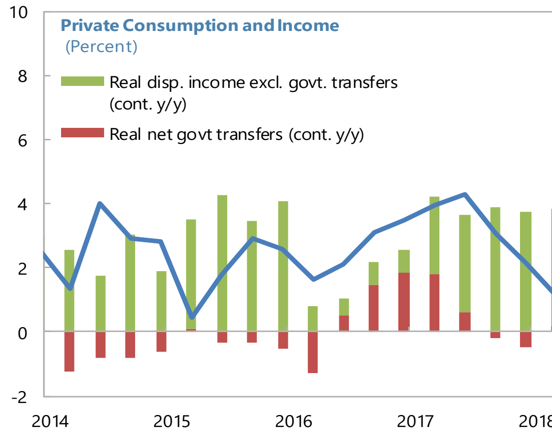

*...with broad-based growth across major provinces.*



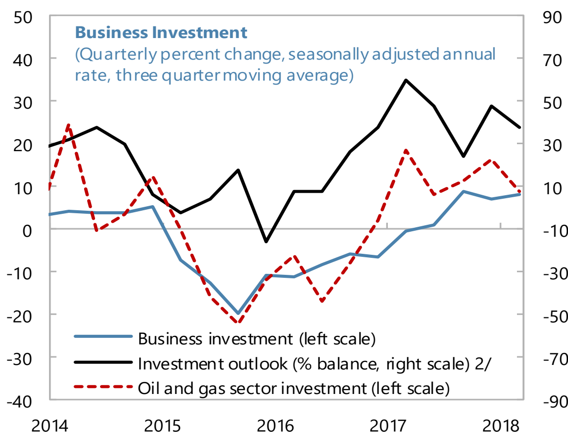

*Private consumption remains key driver of growth...*



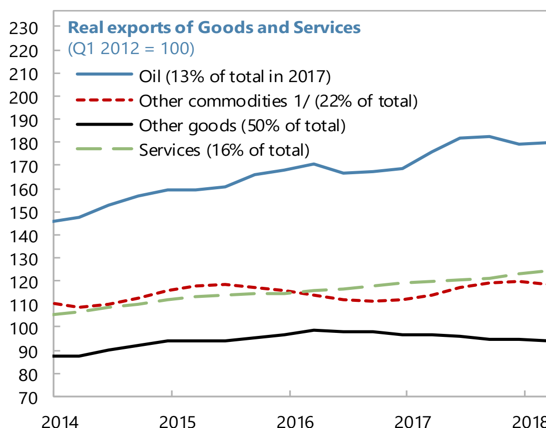

*...reflecting strong gains in disposable incomes.*




*Business investment posted positive growth for the first time since 2014, but it still lags behind other advanced economies...*

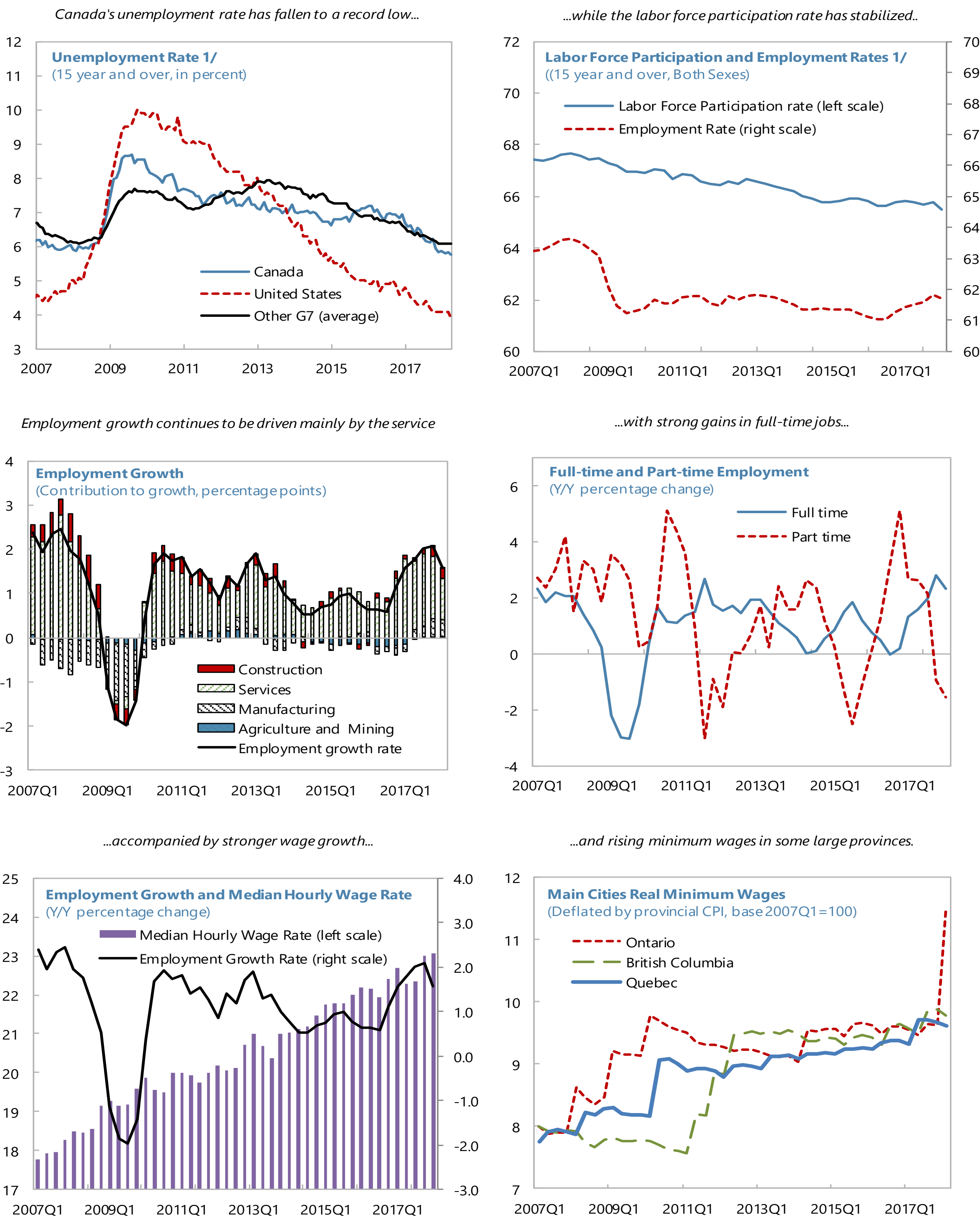



*...and non-energy exports have continued to underperform.*



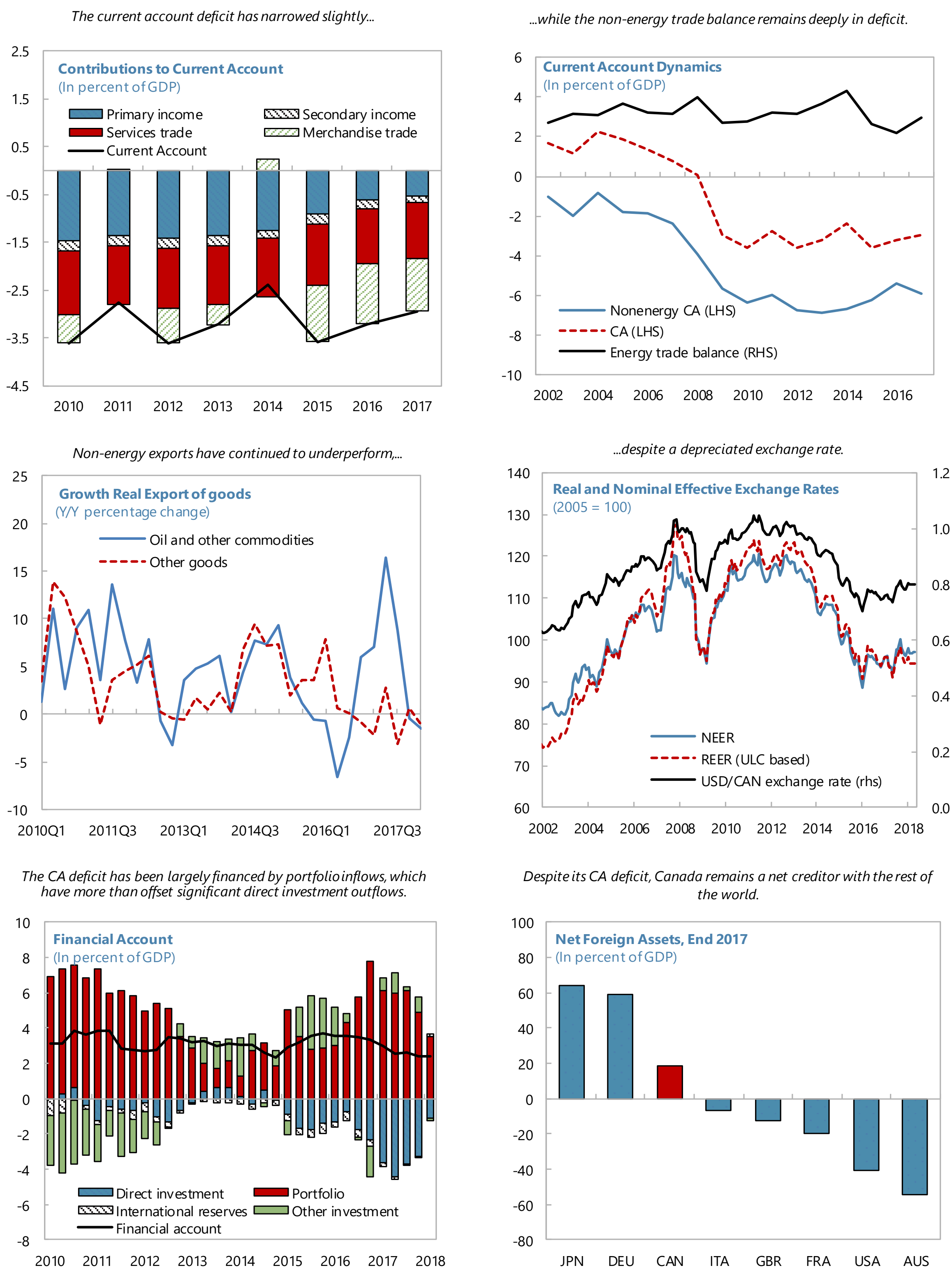

Sources: Statistics Canada; Haver Analytics; Bank of Canada; OECD Statistics and IMF staff calculations.
1/ Natural gas, refined petroleum products, electricity and other energy products, metal ores and nonmetallic minerals, metal and nonmetallic mineral products

# Figure 2. Canada: Gains in Employment



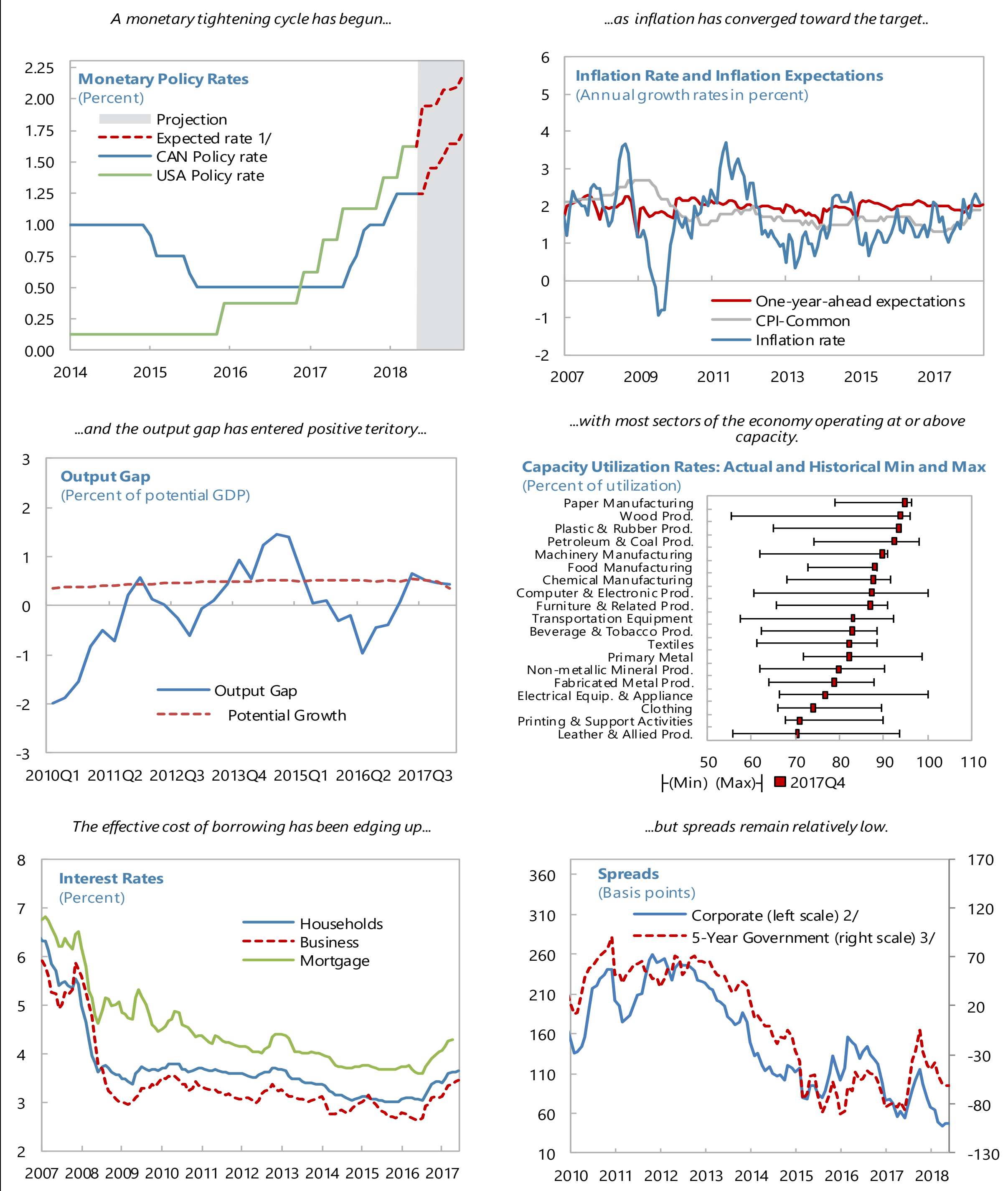

Sources: Statistics Canada; Haver Analytics; and IMF staff calculations.
1/ Seasonally adjusted.

## Figure 3. Canada: External Sector Faces Challenges




Source: Statistics Canada, Bank of Canada and IMF staff estimates.

## Figure 4. Canada: Monetary Conditions Have Tightened




Source: Haver Analytics, Consensus Economics, Statistics Canada, Bank of Canada, Bloomberg, and IMF Staff estimates.

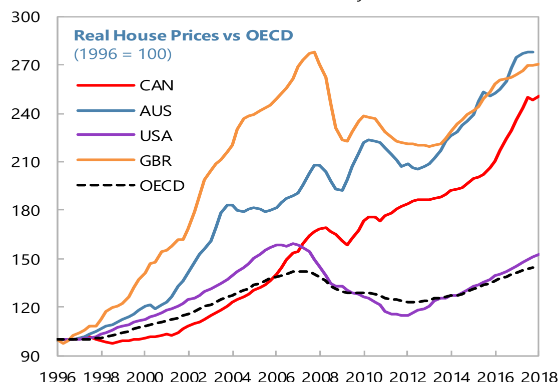
1/ Estimated rate as of May 2018 using Bloomberg's World Interest Rate Implied Probability (WIRP).

2/ ICE BofA Merrill Lynch Canada Corporate Effective Yields minus U.S. 5-Year Treasury Note Yields.

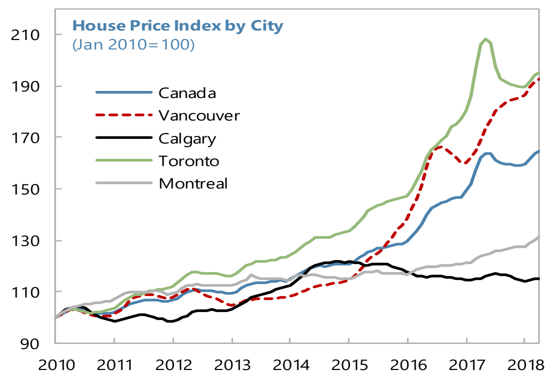
3/ Canada Benchmark Bond 5-years Yields minus U.S. 5-Year Treasury Note Yields.

## Figure 5. Canada: Elevated Housing Sector Vulnerabilities

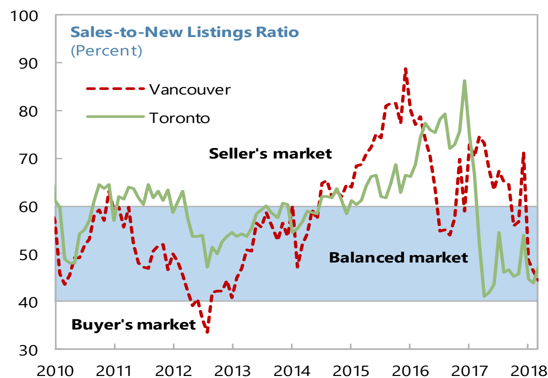
*Canadian house prices have been among the fastest growing in the OECD in recent years...*



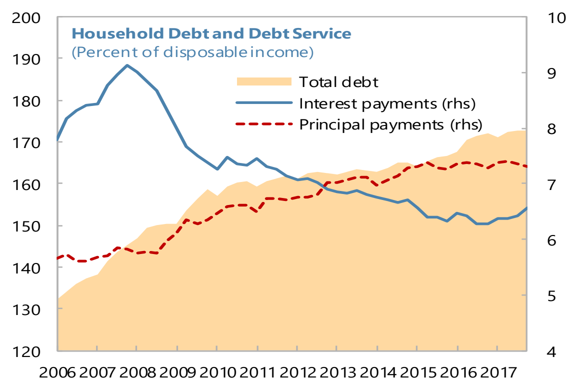

*...with Vancouver and Toronto surging ahead...*



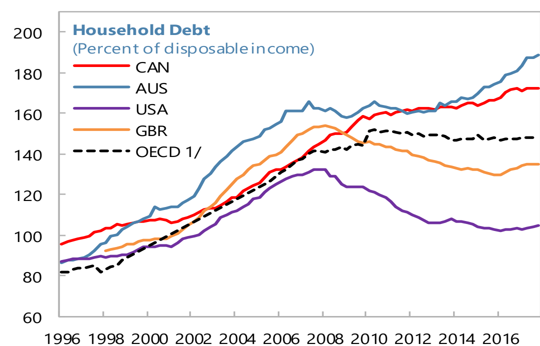

*Toronto markets have cooled recently, but Vancouver markets remain heated....*



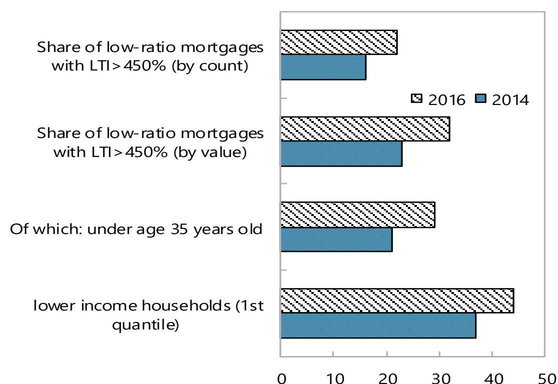

*Debt-service ratio has been stable...*




*Household indebtedness is high by global standards...*




*There has been a notable change in the risk characteristics of mortgages. 2/*



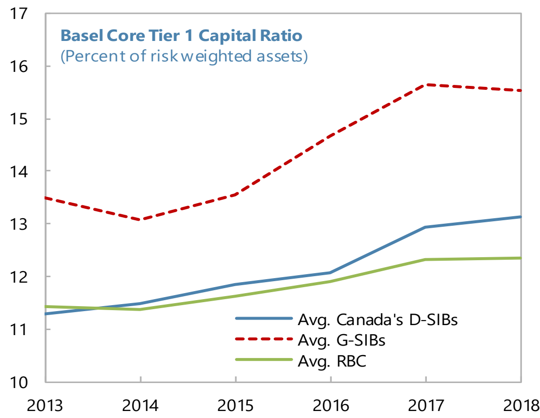

Sources: CREA; OECD Statistics; Haver Analytics; and IMF staff calculations.

1/ Average based on a limited number of countries due to lack of data.

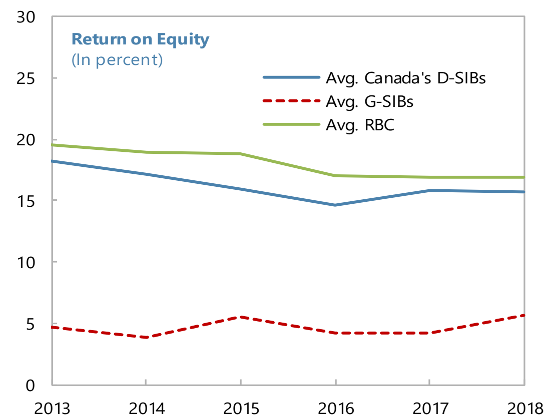
2/ Bank of Canada November 2017 Financial System Review, Table 4.

## Figure 6. Canada: Comparing Performance of Canadian Big Six Banks and G-SIBS 1/

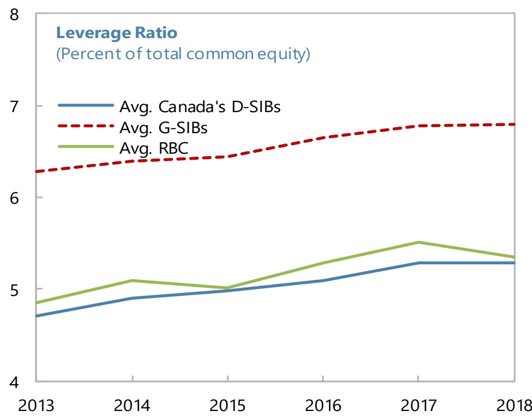
*Canadian banks' capital ratios continue to rise along with those of G-SIBs but remain below their level...*



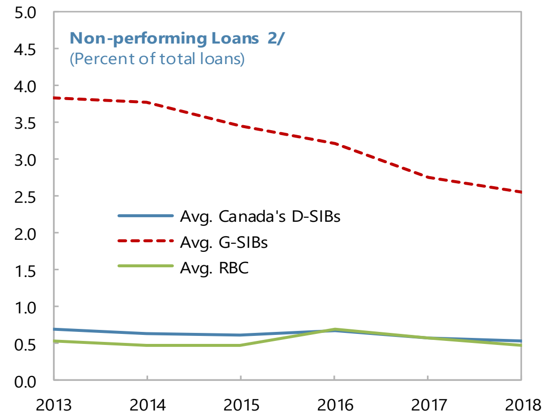

*...but enjoy higher profitability than G-SIBs.*



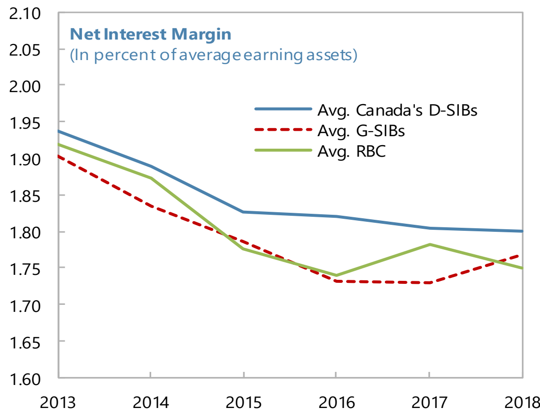

*The leverage ratio has continued to rise....*



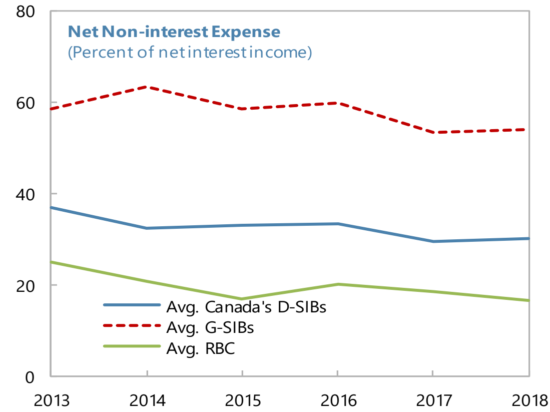

*...with low non-performing loan ratios.*




*Canadian D-SIBs have maintained relatively higher net interest margins...*




*and lower non-interest expense.*



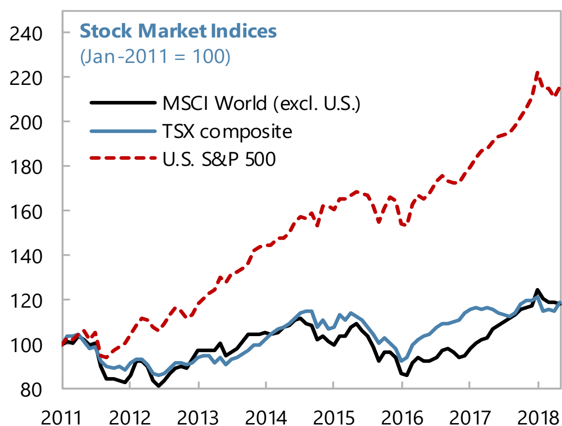

Sources: Bloomberg and IMF staff calculations.

1/ Avg. means average of the 12 months and the corresponding banks in each group.

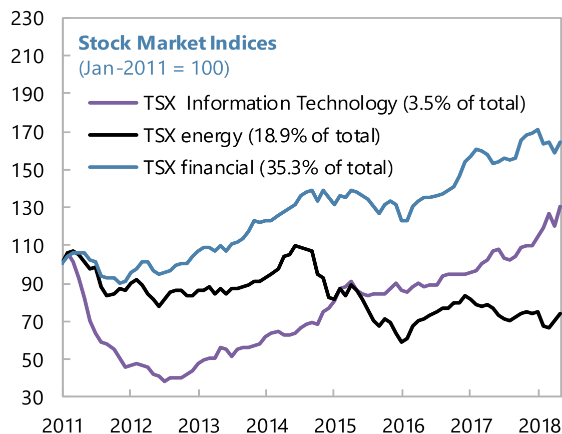
2/ The values for 2018 correspond to the average of January to May.

## Figure 7. Canada: Stronger Capital Market Performance and Rising Interest Rates

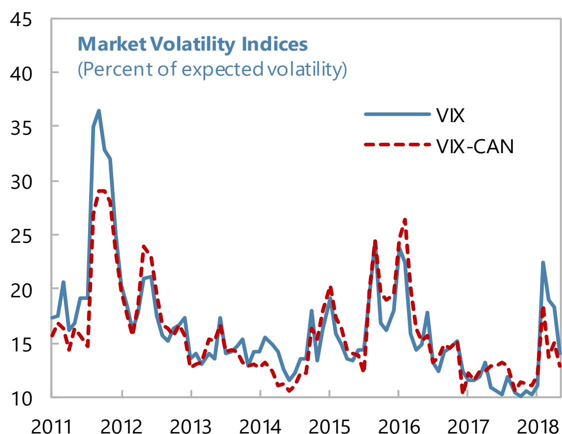
*Canada's stock market index has evolved broadly in line with global indexes (excluding the U.S.)...*



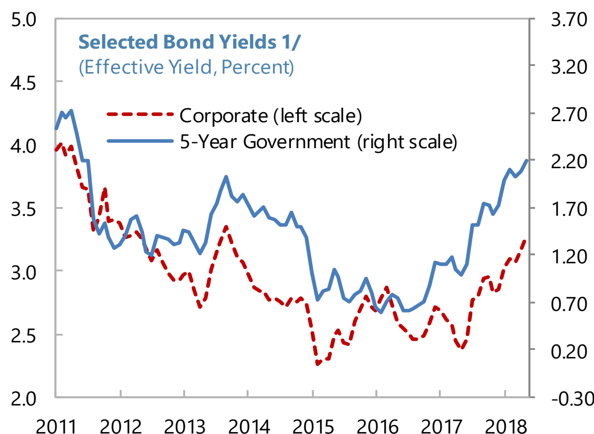

*...with prices rising in most sectors, except energy.*



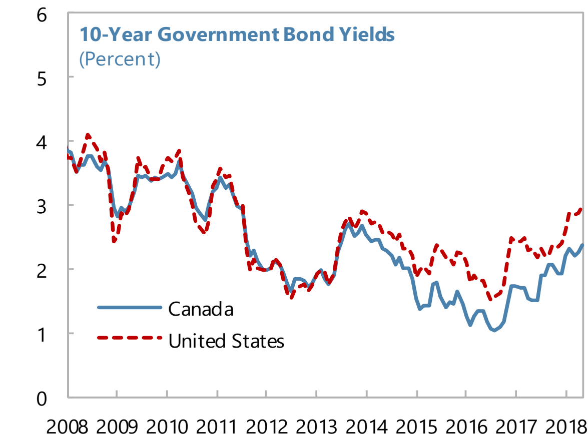

*After a period of relative calm, market volatility rose in early 2018 amid uncertainty emanating from the U.S.*



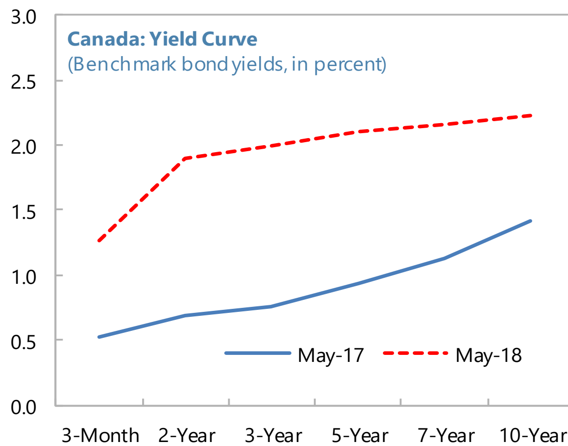

*Monetary policy tightening has contributed to rising sovereign and corporate bond yields...*




*...in line rising long-term yields in the U.S....*




*...and a steepening of the yield curve at the short end.*




Source: Haver Analytics, Statistics Canada, Bank of Canada, Bloomberg, and IMF Staff estimates.

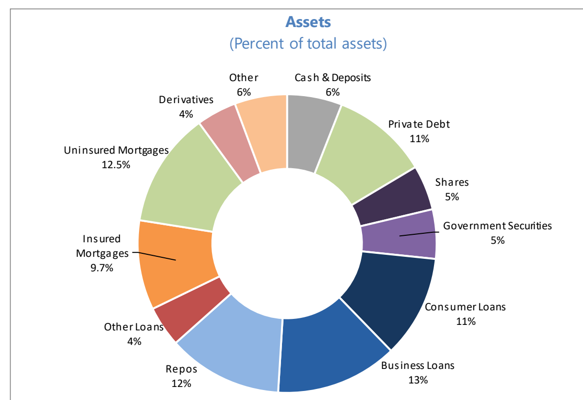
1/ The corporate yields correspond to the ICE BofA Merrill Lynch Canada Corporate Bonds index.

## Figure 8. Canada: Balance Sheet Composition, December 2017

### Federally Regulated Financial Institutions 1/

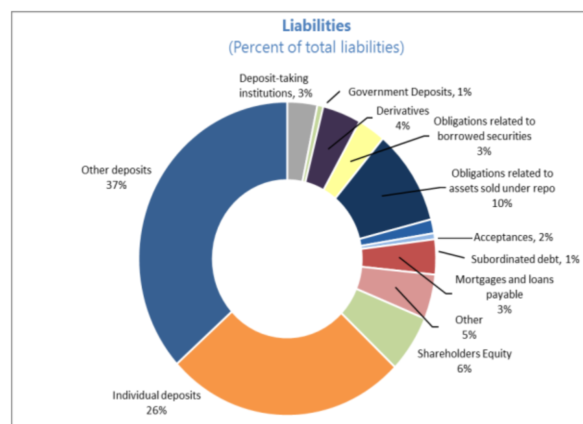
| Type | Number |
|---|---|
| Banks | 86 |
| Trust Companies | 44 |
| Loan Companies | 18 |
| Life Insurance Companies | 67 |
| Fraternal Benefit Societies | 13 |
| Property & Casualty Insurance Companies | 153 |
| All | 381 |

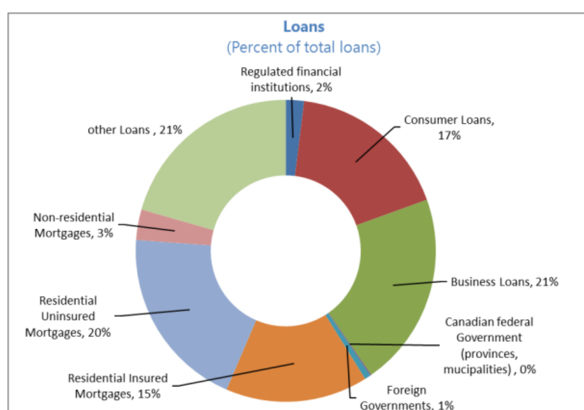
1/ Includes subsidiaries.




### Federally Regulated Financial Institutions: Percentage of Total Financial System Assets

| Type | % |
|---|---|
| Banks | 74.0 |
| Trust Companies | 2.2 |
| Loan Companies | 2.6 |
| Life Insurance Companies | 19.2 |
| Fraternal Benefit Societies | 0.3 |
| Property & Casualty Insurance Companies | 1.7 |
| All | 100 |

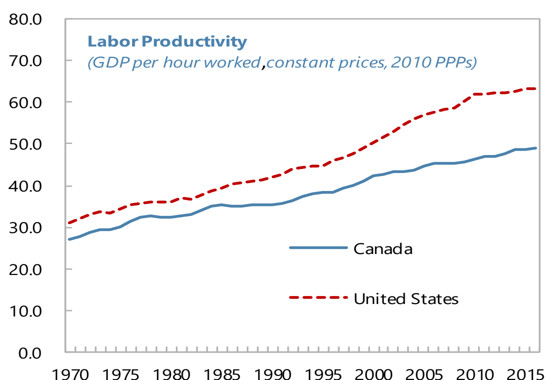


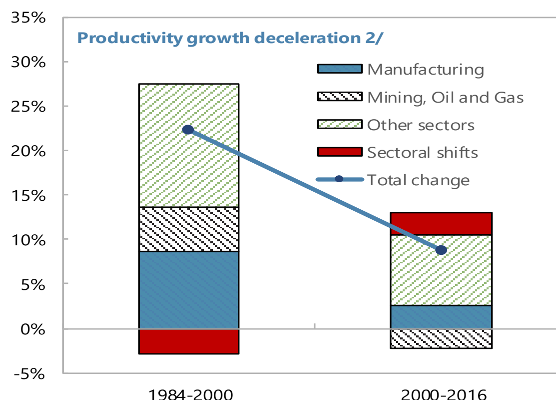

Source: OSFI and IMF staff estimates.

## Figure 9. Canada: Productivity Growth and Business Investment 1/

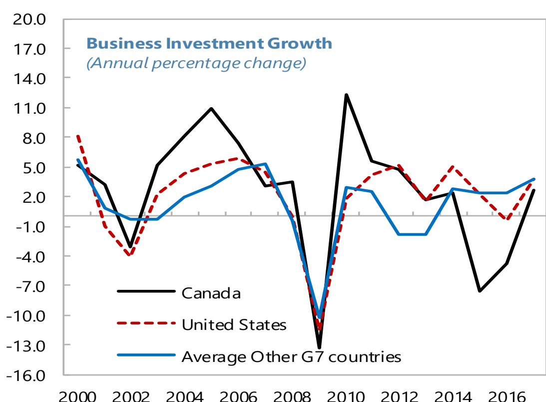
*Stagnated labor productivity growth...*



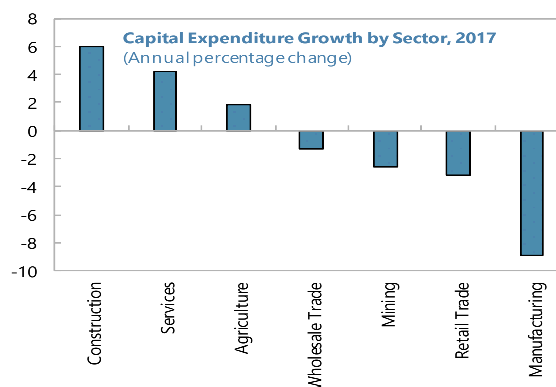

*...with deceleration most pronounced in manufacturing and mining.*



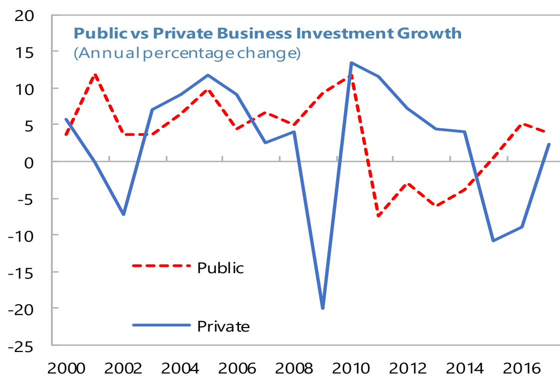

*Subdued recovery in business investment...*



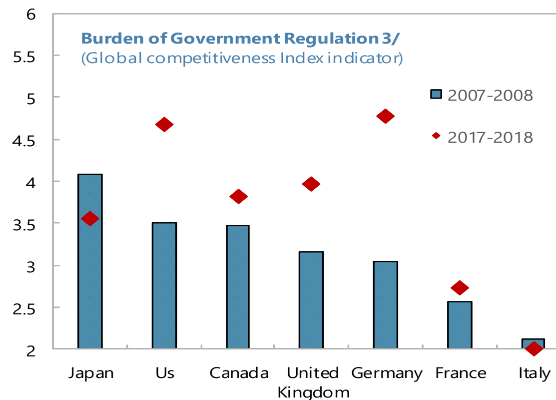

*...driven by construction, services and agriculture...*




*public investment has provided some offset.*




*Room to reduce regulatory burden.*




Source: Statistics Canada; Haver Analytics; Bank of Canada; OECD Statistics, IMF staff calculations and World Economic Forum.

1/ Business investment is defined as gross fixed capital formation, constant prices excluding residential investment.

2/ Sectoral shifts refer to changes in employment shares across sectors.

3/ Indicator calculated by the World Economic Forum as part of the Global Competitiveness Index, the scale goes from 1 to 7, 7 being the higher rate.

## Table 1. Canada: Selected Economic Indicators, 2014–19

(Percentage change, unless otherwise indicated)

Nominal GDP (2017): Can$ 2,144 billion (US$ 1,652 billion) — Quota: SDR 11,023.9 million

GDP per capita (2017): US$ 45,077 — Population (2017): 36.66 million

Main exports: Oil and gas, autos and auto parts, gold, lumber, copper.

| | | | | | Projections | |
|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| **Output and Demand** | | | | | | |
| Real GDP | 2.9 | 1.0 | 1.4 | 3.0 | 2.1 | 2.0 |
| Total domestic demand | 1.8 | 0.1 | 0.9 | 3.8 | 3.2 | 1.3 |
| Private consumption | 2.6 | 2.2 | 2.3 | 3.4 | 1.8 | 1.4 |
| Total investment | 1.0 | -5.9 | -3.9 | 6.4 | 7.6 | 1.8 |
| Net exports, contribution to growth | 1.1 | 0.9 | 0.7 | -0.9 | -0.6 | 0.7 |
| **Unemployment and Inflation** | | | | | | |
| Unemployment rate (average) 2/ | 6.9 | 6.9 | 7.0 | 6.3 | 6.1 | 6.2 |
| CPI inflation (average) | 1.9 | 1.1 | 1.4 | 1.6 | 2.5 | 2.2 |
| **Saving and Investment 1/** | | | | | | |
| Gross national saving | 22.5 | 20.5 | 20.0 | 20.8 | 20.9 | 21.9 |
| General government | 3.8 | 3.7 | 3.2 | 3.1 | 2.8 | 2.8 |
| Private | 18.7 | 16.8 | 16.8 | 17.6 | 18.1 | 19.1 |
| Personal | 4.8 | 5.6 | 5.0 | 5.0 | 4.4 | 5.0 |
| Business | 13.9 | 11.2 | 11.8 | 12.6 | 13.7 | 14.1 |
| Gross domestic investment | 24.9 | 24.1 | 23.2 | 23.7 | 23.8 | 23.9 |
| **General Government Fiscal Indicators 1/** (NA basis) | | | | | | |
| Revenue | 38.6 | 39.8 | 39.6 | 39.2 | 39.2 | 39.2 |
| Expenditures | 38.5 | 39.9 | 40.7 | 40.3 | 40.4 | 40.3 |
| Overall balance | 0.2 | -0.1 | -1.1 | -1.1 | -1.2 | -1.1 |
| Gross Debt | 85.0 | 90.5 | 91.1 | 89.7 | 87.3 | 84.7 |
| Net debt | 28.0 | 27.7 | 28.5 | 27.8 | 27.6 | 27.2 |
| **Money and Credit** (Annual average) | | | | | | |
| Household Real Credit Growth | 2.3 | 3.7 | 4.1 | 4.0 | 3.1 | 3.1 |
| Business Real Credit Growth | 5.7 | 7.2 | 3.9 | 6.8 | 7.1 | 7.9 |
| Three-month treasury bill 2/ | 0.9 | 0.5 | 0.5 | 0.7 | 1.1 | 1.7 |
| Ten-year government bond yield 2/ | 2.2 | 1.5 | 1.3 | 1.8 | 2.3 | 2.7 |
| **Balance of Payments** | | | | | | |
| Current account balance 1/ | -2.4 | -3.6 | -3.2 | -2.9 | -2.9 | -2.0 |
| Merchandise Trade balance 1/ | 0.2 | -1.2 | -1.3 | -1.1 | -0.8 | -0.1 |
| Export volume (percent change) | 5.9 | 3.5 | 0.5 | 0.7 | 2.2 | 4.0 |
| Import volume (percent change) | 2.3 | 0.4 | -1.3 | 3.9 | 3.9 | 1.5 |
| Terms of trade | -1.2 | -6.9 | -2.0 | 3.0 | 2.5 | 0.3 |

Sources: Haver Analytics and Fund staff calculations

1/ Percent of GDP.

2/ In percent.

## Table 2. Canada: Balance of Payments, 2016–23

(Percent of GDP)

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|
| | | | Projections | | | | | |
| **Current Account** | | | | | | | | |
| Current account balance | -3.2 | -2.9 | -2.9 | -2.0 | -1.7 | -1.7 | -1.6 | -1.8 |
| Merchandise trade balance | -1.3 | -1.1 | -0.8 | -0.1 | 0.2 | 0.2 | 0.3 | 0.4 |
| Exports, goods | 25.6 | 25.6 | 26.6 | 26.8 | 26.5 | 25.9 | 25.3 | 24.6 |
| Export volume growth (percentage change) | 0.5 | 0.7 | 2.2 | 4.0 | 2.9 | 2.1 | 1.5 | 1.3 |
| Imports, goods | 26.9 | 26.7 | 27.4 | 26.9 | 26.3 | 25.8 | 25.0 | 24.2 |
| Import volume growth (percentage change) | -1.3 | 3.9 | 3.9 | 1.5 | 0.7 | 0.5 | 0.3 | 0.5 |
| Services balance | -1.1 | -1.2 | -1.0 | -0.9 | -0.8 | -0.8 | -0.8 | -0.9 |
| Primary Income Balance | -0.6 | -0.5 | -0.9 | -0.9 | -0.9 | -0.9 | -1.0 | -1.1 |
| Secondary Income Balance | -0.2 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| **Capital and Financial Accounts** | | | | | | | | |
| Direct investment, net | -2.4 | -3.3 | -1.4 | -1.5 | -1.9 | -1.9 | -2.1 | -2.2 |
| Portfolio investment, net | 7.8 | 4.9 | 4.3 | 4.0 | 4.1 | 4.3 | 4.4 | 4.7 |
| Other investment, net 1/ | -1.7 | 0.9 | 0.0 | -0.4 | -0.5 | -0.6 | -0.7 | -0.8 |
| Capital account balance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| International reserves | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Statistical discrepancy | -0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Memorandum Items** | | | | | | | | |
| Terms of trade (percent change) | -2.0 | 3.0 | 2.5 | 0.3 | -1.0 | -1.3 | -0.4 | -0.4 |
| Net international investment position 2/ | 10.3 | 18.7 | … | … | … | … | … | … |
| Assets | 211.7 | 221.9 | … | … | … | … | … | … |
| FDI | 85.1 | 89.7 | … | … | … | … | … | … |
| Portfolio 2/ | 85.6 | 93.6 | … | … | … | … | … | … |
| Other | 35.6 | 33.5 | … | … | … | … | … | … |
| Reserves | 5.5 | 5.1 | … | … | … | … | … | … |
| Liabilities | 201.4 | 203.2 | … | … | … | … | … | … |
| FDI | 66.7 | 66.0 | … | … | … | … | … | … |
| Portfolio 2/ | 95.6 | 99.8 | … | … | … | … | … | … |
| Other | 39.0 | 37.4 | … | … | … | … | … | … |
| Gross external debt | 115.9 | 114.5 | 111.6 | 107.3 | 103.9 | 100.7 | 97.5 | 94.3 |
| Real effective exchange rate 3/ | -2.4 | 1.5 | … | … | … | … | … | … |

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 3. Canada: General Government Fiscal Indicators, 2015–23 1/**

*(Percent of GDP, unless otherwise indicated)*

| | | | | Projections | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| **Federal Government** | | | | | | | | | |
| Revenue | 14.4 | 14.0 | 14.0 | 14.1 | 14.1 | 14.1 | 14.1 | 14.1 | 14.1 |
| Income taxes | 9.3 | 9.1 | 9.0 | 9.1 | 9.2 | 9.2 | 9.2 | 9.2 | 9.2 |
| Expenditures | 14.1 | 14.5 | 14.5 | 14.4 | 14.4 | 14.3 | 14.2 | 14.2 | 14.2 |
| Program spending | 13.8 | 14.3 | 14.3 | 14.1 | 13.9 | 13.8 | 13.7 | 13.6 | 13.5 |
| Transfers | 8.9 | 9.2 | 9.3 | 9.3 | 9.3 | 9.3 | 9.3 | 9.3 | 9.3 |
| Interest payments | 1.2 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 |
| Budgetary balance | 0.3 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 | -0.1 |
| Cyclically-adjusted balance 2/ | 0.3 | -0.3 | -0.5 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.1 |
| Net federal debt | 22.3 | 22.3 | 21.7 | 21.2 | 20.8 | 20.3 | 19.8 | 19.3 | 18.9 |
| Gross federal debt | 39.2 | 38.8 | 37.7 | 36.9 | 36.0 | 35.1 | 34.4 | 33.8 | 33.2 |
| **Provincial and Local Governments** | | | | | | | | | |
| Revenue | 26.2 | 26.3 | 26.0 | 25.9 | 25.9 | 25.9 | 26.0 | 26.0 | 26.0 |
| Income taxes | 6.3 | 6.3 | 6.0 | 6.0 | 6.0 | 6.0 | 6.1 | 6.1 | 6.1 |
| Expenditures | 27.2 | 27.6 | 27.2 | 27.3 | 27.2 | 27.1 | 27.1 | 27.1 | 27.1 |
| Interest payments | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| Budgetary balance | -1.0 | -1.2 | -1.2 | -1.4 | -1.3 | -1.2 | -1.1 | -1.1 | -1.1 |
| **Canada/Quebec Pension Plans** | | | | | | | | | |
| Revenue | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
| Total spending | 2.8 | 2.9 | 2.9 | 2.9 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 |
| Budgetary balance | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 |
| **Consolidated General Government** 3/ | | | | | | | | | |
| Revenue | 39.8 | 39.6 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| Expenditure | 39.9 | 40.7 | 40.3 | 40.4 | 40.3 | 40.2 | 40.2 | 40.2 | 40.2 |
| Overall balance | -0.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.0 | -1.0 | -1.0 | -0.9 |
| Primary balance | 0.5 | -0.4 | -0.8 | -0.9 | -0.7 | -0.6 | -0.5 | -0.5 | -0.4 |
| Cyclically-adjusted balance 2/ | -0.2 | -0.9 | -1.3 | -1.4 | -1.3 | -1.2 | -1.1 | -1.0 | -1.0 |
| Net public debt | 27.7 | 28.5 | 27.8 | 27.6 | 27.2 | 26.7 | 26.1 | 25.6 | 25.1 |
| Gross public debt | 90.5 | 91.1 | 89.7 | 87.3 | 84.7 | 82.4 | 80.2 | 78.3 | 76.3 |
| **Memorandum Items** | | | | | | | | | |
| Real GDP growth (percentage change) | 1.0 | 1.4 | 3.0 | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 | 1.6 |
| Nominal GDP growth (percentage change) | 0.2 | 2.0 | 5.4 | 4.3 | 4.4 | 3.6 | 3.5 | 3.6 | 3.5 |

Sources: Statistics Canada; Department of Finance Canada; provincial budget reports; Haver Analytics; and IMF staff estimates.
1/ National Accounts basis; the numbers are different from the authorities' public sector accounts.
2/ Percent of potential GDP.
3/ Includes federal, provincial, territorial, and local governments; and Canada and Quebec pension plans.

## Table 4. Canada: Statement of General Government Operations and Balance Sheet, 2010–2017 1/

*(Percent of GDP, unless otherwise indicated)*

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|
| **Government operations** | | | | | | | | |
| Revenue | 38.5 | 38.4 | 38.6 | 38.6 | 38.7 | 39.8 | 39.6 | 39.3 |
| Taxes | 26.6 | 26.5 | 26.7 | 26.6 | 26.8 | 28.0 | 28.0 | 27.8 |
| Social contributions | 4.6 | 4.5 | 4.7 | 4.7 | 4.6 | 4.8 | 4.8 | 4.5 |
| Grants | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Other revenue | 7.3 | 7.4 | 7.1 | 7.2 | 7.2 | 7.0 | 6.8 | 6.9 |
| Total expenditure | 43.2 | 41.7 | 41.0 | 40.1 | 38.5 | 39.9 | 40.7 | 40.3 |
| Expense | 41.4 | 40.5 | 40.0 | 39.4 | 38.3 | 39.6 | 40.1 | 39.7 |
| Compensation of employees | 12.4 | 12.2 | 12.2 | 12.1 | 11.9 | 12.2 | 12.3 | 12.1 |
| Use of goods and services | 9.0 | 8.8 | 8.7 | 8.4 | 8.2 | 8.5 | 8.6 | 8.5 |
| Consumption of fixed capital | 3.1 | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.2 |
| Interest | 3.7 | 3.6 | 3.5 | 3.4 | 3.2 | 3.1 | 3.0 | 2.9 |
| Subsidies | 1.1 | 1.1 | 1.1 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| Grants | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| Net acquisition of nonfinancial assets | 1.8 | 1.2 | 1.0 | 0.7 | 0.2 | 0.3 | 0.6 | 0.7 |
| Gross operating balance | 0.2 | 1.1 | 1.8 | 2.4 | 3.6 | 3.5 | 2.9 | 2.9 |
| Net operating balance | -2.9 | -2.1 | -1.5 | -0.8 | 0.4 | 0.2 | -0.4 | -0.4 |
| Net lending or borrowing | -4.7 | -3.3 | -2.5 | -1.4 | 0.2 | -0.1 | -1.0 | -1.0 |
| **Balance sheet (market value)** | | | | | | | | |
| Net worth | -1.3 | -2.3 | -8.2 | 0.9 | -0.4 | -4.0 | -0.2 | 5.0 |
| Nonfinancial assets | 48.6 | 50.7 | 45.4 | 49.3 | 46.8 | 42.4 | 45.3 | 45.0 |
| Net financial worth | -50.0 | -53.0 | -53.6 | -48.4 | -47.2 | -46.4 | -45.5 | -40.0 |
| Financial assets | 55.2 | 54.9 | 57.9 | 59.1 | 61.3 | 68.4 | 68.6 | 69.1 |
| Currency and deposits | 3.2 | 3.1 | 3.9 | 4.5 | 4.7 | 4.9 | 5.1 | 5.0 |
| Securities other than shares | 7.1 | 6.7 | 6.4 | 6.6 | 6.8 | 8.5 | 7.7 | 7.3 |
| Loans | 12.6 | 12.3 | 12.3 | 11.5 | 10.6 | 11.6 | 11.8 | 11.4 |
| Shares and other equity | 20.3 | 20.8 | 22.4 | 24.0 | 26.0 | 30.0 | 31.1 | 32.7 |
| Insurance technical reserves | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other accounts receivable | 12.0 | 11.9 | 13.0 | 12.4 | 13.2 | 13.3 | 13.0 | 12.7 |
| Financial liabilities 2/ | 105.2 | 107.9 | 111.5 | 107.5 | 108.5 | 114.7 | 114.1 | 109.1 |
| Currency and deposits | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Securities other than shares | 67.9 | 71.4 | 74.0 | 69.6 | 70.4 | 74.5 | 75.2 | 71.9 |
| Loans | 3.1 | 3.1 | 3.0 | 3.2 | 3.2 | 3.3 | 3.3 | 3.3 |
| Shares and other equity | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Insurance technical reserves | 19.4 | 19.3 | 19.2 | 18.0 | 17.2 | 17.8 | 16.9 | 15.8 |
| Other accounts payable | 14.5 | 13.8 | 15.1 | 16.5 | 17.5 | 18.8 | 18.4 | 17.9 |
| ***Memorandum items:*** | | | | | | | | |
| Nominal GDP (in billions of Can$) | 1,662 | 1,770 | 1,823 | 1,898 | 1,990 | 1,995 | 2,036 | 2,145 |

Sources: Statistics Canada; and Haver Analytics.

1/ Government Finance Statistics basis.

2/ Includes unfunded public sector pension liabilities.

**Table 5. Canada: Financial Soundness Indicators, 2012–17**

(Percent, unless otherwise indicated)

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Total Assets** | | | | | | |
| Total assets 1/ | 3,682 | 3,854 | 4,179 | 4,666 | 5,014 | 5,247 |
| Percent of GDP | 200.2 | 199.9 | 208.0 | 233.3 | 241.2 | 240.6 |
| Nominal GDP | 1,840 | 1,928 | 2,009 | 2,000 | 2,079 | 2,181 |
| **Capital Adequacy** | | | | | | |
| Total capital ratio | 16.2 | 14.3 | 14.2 | 14.2 | 14.8 | 14.8 |
| Tier 1 ratio | 13.4 | 11.7 | 11.9 | 12.1 | 12.5 | 12.9 |
| Capital to assets | 4.9 | 5.0 | 4.9 | 5.1 | 5.2 | 5.3 |
| **Credit Risk** | | | | | | |
| NPLs net of provisions to capital | 6.4 | 6.2 | 5.5 | 5.3 | 6.0 | 4.7 |
| NPLs to Gross Loans | 0.7 | 0.6 | 0.5 | 0.5 | 0.6 | 0.5 |
| Provisions (Individual) to NPL | 22.3 | 16.3 | 17.5 | 17.3 | 16.7 | 15.1 |
| *Sectoral Distribution of Loans* | | | | | | |
| Residents | 74.3 | 73.6 | 71.4 | 67.5 | 68.2 | 67.1 |
| Nonresidents | 25.7 | 26.4 | 28.6 | 32.5 | 31.8 | 32.9 |
| **Profitability** | | | | | | |
| Return on assets | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 | 1.1 |
| Return on equity | 22.7 | 22.3 | 22.5 | 20.7 | 19.9 | 21.3 |
| Interest margin on gross income | 52.0 | 52.5 | 51.3 | 51.1 | 50.7 | 50.7 |
| Trading income to gross income | 5.3 | 4.5 | 3.7 | 3.8 | 4.7 | 4.6 |
| Non-interest expenses to gross income | 63.3 | 62.6 | 62.8 | 63.7 | 63.6 | 61.0 |
| **Liquidity** | | | | | | |
| Liquid assets to total assets | 11.9 | 11.3 | 11.0 | 11.5 | 10.9 | 10.6 |
| Liquid assets to short-term liabilities | 51.8 | 47.8 | 50.5 | 45.4 | 54.6 | 48.9 |
| Customer deposits to loans | 96.3 | 98.2 | 99.3 | 101.0 | 101.4 | 100.0 |
| **FX and Derivative Risk** | | | | | | |
| FX loans to total loans | 26.8 | 27.7 | 30.1 | 33.4 | 34.3 | 35.7 |
| FX liabilities to total liabilities | 42.4 | 42.7 | 49.2 | 48.4 | 55.0 | ... |

Sources: IMF FSI database; and IMF staff calculations.
1/ Billions of Canadian dollars.

## Table 6. Canada: Chartered Banks Loans to Individuals, 2012–2017

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| | | | (In billions of C$) | | | |
| **Canada** | | | | | | |
| Total loans to individuals | 1,891 | 2,026 | 2,162 | 2,429 | 2,537 | 2,687 |
| *Of which: residential mortgages* | 918 | 973 | 1,019 | 1,096 | 1,152 | 1,222 |
| **Big 4 provinces** | | | | | | |
| Quebec | | | | | | |
| Total loans to individuals | 220 | 241 | 250 | 260 | 290 | 307 |
| *Of which: residential mortgages* | 113 | 120 | 125 | 130 | 136 | 141 |
| Ontario | | | | | | |
| Total loans to individuals | 718 | 753 | 796 | 860 | 895 | 983 |
| *Of which: residential mortgages* | 396 | 416 | 435 | 468 | 496 | 532 |
| Alberta | | | | | | |
| Total loans to individuals | 218 | 232 | 245 | 254 | 256 | 259 |
| *Of which: residential mortgages* | 123 | 131 | 138 | 144 | 147 | 149 |
| British Columbia | | | | | | |
| Total loans to individuals | 244 | 260 | 269 | 282 | 296 | 320 |
| *Of which: residential mortgages* | 153 | 162 | 167 | 176 | 190 | 208 |
| | | | (Share of residential mortgages in total loans, in percent) | | | |
| **Canada** | 48.6 | 48.0 | 47.1 | 45.1 | 45.4 | 45.5 |
| **Big 4 provinces** | | | | | | |
| Quebec | 51.5 | 49.8 | 50.0 | 50.1 | 46.8 | 46.1 |
| Ontario | 55.2 | 55.3 | 54.6 | 54.4 | 55.4 | 54.1 |
| Alberta | 56.5 | 56.6 | 56.4 | 56.7 | 57.3 | 57.5 |
| British Columbia | 62.5 | 62.1 | 61.9 | 62.5 | 64.2 | 64.9 |

Sources: Statistics Canada; and Haver Analytics

## Table 7. Canada: External Debt 2007–17 1/

(End period)

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (In percent of GDP) | | | | | | |
| **Total All Sectors** | 57.4 | 67.8 | 73.4 | 73.8 | 76.0 | 82.6 | 85.0 | 92.9 | 111.8 | 115.9 | 114.5 |
| Short-term | 20.2 | 23.6 | 22.9 | 21.7 | 22.6 | 24.7 | 25.3 | 29.4 | 38.5 | 39.3 | 37.4 |
| Long-term | 29.3 | 33.2 | 38.7 | 41.4 | 44.6 | 48.6 | 49.3 | 53.2 | 63.2 | 66.6 | 67.9 |
| **General Government** | 9.8 | 11.4 | 14.6 | 17.5 | 20.3 | 22.4 | 20.6 | 20.2 | 22.0 | 22.3 | 22.4 |
| Short-term | 0.7 | 1.4 | 1.6 | 1.6 | 3.1 | 3.2 | 2.7 | 2.3 | 2.2 | 1.9 | 1.1 |
| Long-term | 9.1 | 10.0 | 13.0 | 15.8 | 17.2 | 19.2 | 17.8 | 17.9 | 19.9 | 20.4 | 21.3 |
| **Monetary Authorities** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Banks** | 16.8 | 20.2 | 20.1 | 19.5 | 20.3 | 22.3 | 24.4 | 30.3 | 41.6 | 45.6 | 44.8 |
| Short-term | 16.5 | 19.5 | 19.2 | 17.4 | 16.7 | 18.0 | 19.2 | 23.8 | 32.0 | 32.7 | 31.3 |
| Long-term | 0.3 | 0.7 | 0.9 | 2.1 | 3.6 | 4.3 | 5.3 | 6.5 | 9.6 | 12.9 | 13.4 |
| **Other Sectors** | 22.8 | 25.2 | 26.9 | 26.2 | 26.6 | 28.6 | 29.6 | 32.1 | 38.0 | 38.0 | 38.1 |
| Short-term | 2.9 | 2.7 | 2.1 | 2.7 | 2.8 | 3.5 | 3.4 | 3.3 | 4.3 | 4.7 | 4.9 |
| Long-term | 19.9 | 22.5 | 24.8 | 23.4 | 23.8 | 25.1 | 26.2 | 28.8 | 33.7 | 33.3 | 33.2 |
| | | | | | (In billions of US dollar) | | | | | | |
| **Total All Sectors** | 920 | 925 | 1,090 | 1,211 | 1,315 | 1,519 | 1,536 | 1,627 | 1,670 | 1,769 | 1,932 |
| Short-term | 323 | 321 | 340 | 356 | 391 | 454 | 457 | 515 | 574 | 600 | 630 |
| Long-term | 469 | 453 | 574 | 679 | 771 | 894 | 891 | 933 | 944 | 1,017 | 1,145 |
| **General Government** | 158 | 156 | 216 | 286 | 351 | 411 | 372 | 355 | 329 | 341 | 377 |
| Short-term | 12 | 19 | 23 | 27 | 54 | 59 | 50 | 40 | 32 | 29 | 19 |
| Long-term | 146 | 137 | 193 | 260 | 297 | 353 | 322 | 314 | 297 | 311 | 358 |
| **Monetary Authorities** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Banks** | 269 | 275 | 298 | 320 | 351 | 410 | 441 | 530 | 621 | 695 | 755 |
| Short-term | 265 | 265 | 285 | 285 | 289 | 331 | 346 | 417 | 478 | 499 | 528 |
| Long-term | 4 | 9 | 13 | 35 | 62 | 79 | 95 | 113 | 143 | 197 | 227 |
| **Other Sectors** | 366 | 343 | 399 | 429 | 460 | 526 | 535 | 562 | 568 | 580 | 642 |
| Short-term | 47 | 37 | 31 | 44 | 48 | 64 | 61 | 57 | 64 | 71 | 82 |
| Long-term | 319 | 306 | 368 | 385 | 412 | 462 | 474 | 505 | 504 | 509 | 560 |

Source: Haver Analytics and IMF Staff estimates.
1/ Short-term instruments include: money market, loans, deposits, trade credits, and other debt liabilities. Long term includes: bonds and notes, loans, and other debt liabilities.

## Table 8. Canada: Medium-Term Scenario 2015–23

(Percentage change, unless otherwise indicated)

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Projections | | | | | |
| **National Accounts in constant prices** | | | | | | | | | |
| Real GDP | 1.0 | 1.4 | 3.0 | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 | 1.6 |
| Q4/Q4 | 0.3 | 2.0 | 3.0 | 2.1 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 |
| Net exports 1/ | 0.9 | 0.7 | -0.9 | -0.6 | 0.7 | 0.6 | 0.4 | 0.3 | 0.1 |
| Final domestic demand | 0.3 | 1.1 | 3.0 | 2.6 | 1.3 | 1.2 | 1.4 | 1.4 | 1.5 |
| Private consumption | 2.2 | 2.3 | 3.4 | 1.8 | 1.4 | 1.1 | 1.2 | 1.1 | 1.1 |
| Public consumption | 1.6 | 2.2 | 2.3 | 2.5 | 0.5 | 0.6 | 1.3 | 1.4 | 1.4 |
| Private fixed domestic investment | -6.2 | -4.4 | 2.6 | 4.0 | 2.2 | 2.5 | 2.5 | 2.5 | 2.5 |
| Public investment | 0.3 | 5.1 | 3.8 | 7.0 | 0.1 | 0.1 | -0.6 | 0.0 | 1.7 |
| Change in inventories 1/ | -0.2 | -0.2 | 0.8 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Nominal GDP | 0.2 | 2.0 | 5.4 | 4.3 | 4.4 | 3.6 | 3.5 | 3.6 | 3.5 |
| **Employment and inflation** | | | | | | | | | |
| Unemployment rate 3/ | 6.9 | 7.0 | 6.3 | 6.1 | 6.2 | 6.2 | 6.3 | 6.4 | 6.5 |
| Employment | 0.9 | 0.7 | 1.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 |
| CPI inflation | 1.1 | 1.4 | 1.6 | 2.5 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 |
| Core CPI inflation (y/y) | 2.2 | 1.9 | 1.1 | 1.9 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 |
| GDP deflator | -0.8 | 0.6 | 2.3 | 2.2 | 2.3 | 1.8 | 1.7 | 1.9 | 1.9 |
| Potential output growth | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 1.9 | 1.9 | 1.8 | 1.8 |
| Output gap 4/ | 0.1 | -0.5 | 0.4 | 0.5 | 0.6 | 0.5 | 0.4 | 0.2 | 0.0 |
| **Indicators of fiscal policies 2/** | | | | | | | | | |
| Federal fiscal balance | 0.3 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 | -0.1 |
| Billions of Can$ | 19.2 | 5.4 | -2.2 | 1.3 | 3.1 | 4.3 | 0.3 | 2.5 | 4.2 |
| General government fiscal balance 5/ | -0.1 | -1.1 | -1.1 | -1.2 | -1.1 | -1.0 | -1.0 | -1.0 | -0.9 |
| Billions of Can$ | -2.6 | -22.3 | -23.5 | -27.7 | -25.1 | -23.7 | -24.3 | -25.0 | -25.6 |
| General government gross debt | 90.5 | 91.1 | 89.7 | 87.3 | 84.7 | 82.4 | 80.2 | 78.3 | 76.3 |
| General government net debt | 27.7 | 28.5 | 27.8 | 27.6 | 27.2 | 26.7 | 26.1 | 25.6 | 25.1 |
| Three-month treasury bill 3/ | 0.5 | 0.5 | 0.7 | 1.1 | 1.7 | 2.7 | 2.8 | 2.8 | 2.8 |
| Ten-year government bond yield 3/ | 1.5 | 1.3 | 1.8 | 2.3 | 2.7 | 3.3 | 3.8 | 3.9 | 3.9 |
| **External indicators** | | | | | | | | | |
| Current account balance 2/ | -3.6 | -3.2 | -2.9 | -2.9 | -2.0 | -1.7 | -1.7 | -1.6 | -1.8 |
| Merchandise trade balance 2/ | -1.2 | -1.3 | -1.1 | -0.8 | -0.1 | 0.2 | 0.2 | 0.3 | 0.4 |
| Export volume | 26.3 | 25.6 | 25.6 | 26.6 | 26.8 | 26.5 | 25.9 | 25.3 | 24.6 |
| Import volume | 27.5 | 26.9 | 26.7 | 27.4 | 26.9 | 26.3 | 25.8 | 25.0 | 24.2 |
| Terms of trade | -6.9 | -2.0 | 3.0 | 2.5 | 0.3 | -1.0 | -1.3 | -0.4 | -0.4 |
| Real effective exchange rate | -8.8 | -2.4 | 1.5 | … | … | … | … | … | … |
| **Saving and investment 2/** | | | | | | | | | |
| Gross national saving | 20.5 | 20.0 | 20.8 | 20.9 | 21.9 | 22.4 | 22.4 | 22.7 | 22.7 |
| General government | 3.7 | 3.2 | 3.1 | 2.8 | 2.8 | 2.8 | 2.6 | 2.5 | 2.4 |
| Private | 16.8 | 16.8 | 17.6 | 18.1 | 19.1 | 19.6 | 19.8 | 20.1 | 20.3 |
| Gross domestic investment | 24.1 | 23.2 | 23.7 | 23.8 | 23.9 | 24.1 | 24.1 | 24.3 | 24.5 |
| Personal savings 6/ | 4.8 | 3.5 | 3.8 | 3.3 | 3.7 | 4.3 | 4.5 | 5.1 | 5.6 |
| **Memorandum Items** | | | | | | | | | |
| Nominal GDP (billions of Can$) | 1,995 | 2,036 | 2,145 | 2,239 | 2,336 | 2,421 | 2,505 | 2,596 | 2,688 |

Sources: Haver Analytics; and IMF staff estimates.

1/ Contribution to growth.

2/ Percent of GDP.

3/ Percent.

4/ Percent of potential GDP.

5/ Includes federal, provincial, territorial, and local governments; and Canada and Quebec pensionplans.

6/ Percent of disposable income.

# Annex I. External Balance Assessment

| | Canada | Overall Assessment |
|---|---|---|
| **Foreign asset and liability position and trajectory** | **Background**. Canada's net international investment position (NIIP) rose from 10.3 percent of GDP in 2016 to 18.7 percent of GDP in 2017, reflecting significant valuation gains on external assets. At the same time, gross external debt remained broadly stable at 115 percent of GDP, of which about a third is short-term. The NIIP is projected to decline in the medium term, in line with sustained, albeit narrowing, current account (CA) deficits.<br>**Assessment**. Canada's foreign assets have a higher foreign currency component than its liabilities which provides a hedge against currency depreciation. The NIIP level and trajectory are sustainable. | **Overall Assessment**:<br>*The external position in 2017 remained moderately weaker than implied by medium-term fundamentals and desirable policies.*<br><br>It will take time for the economy to adjust to structural shifts in the allocation of resources, restore lost production capacity, and address productivity underperformance. Recent developments do not suggest a change in the assessment of the external position for 2017.<br><br>*In the medium term, the external position is expected to strengthen as non-energy exports gradually benefit from improved price competitiveness and investment in services and manufacturing capacity.*<br><br>**Potential policy responses**:<br>Policies to boost Canada's non-energy exports include measures geared at improving labor productivity; investing in R&D and physical capital; promoting FDI; developing services exports; and diversifying Canada's export markets. The planned increase in public infrastructure investment should boost competitiveness, and improve the external position over time. A credible medium-term consolidation plan for fiscal policy will also be necessary to support the external rebalancing. Maintaining tight macroprudential policies to ensure financial stability should also support private sector saving. |
| **Current account** | **Background**. The CA deficit narrowed to 2.9 percent of GDP in 2017 (from 3.2 percent of GDP in 2016), driven by an improvement in the energy trade balance. The CA deficit has been largely financed by portfolio inflows, which have more than offset significant direct investment outflows. The overall change in the CA was underpinned by improvements in both public and private savings-investment balances, with both increasing by around 0.1 percent of GDP in 2017.<br>**Assessment.** The EBA estimates a CA norm of 2.2 percent of GDP, and a cyclically-adjusted CA gap of -4.6 percent of GDP for 2017. This gap has widened significantly compared to last year, partly reflecting EBA methodological changes. The gap also partly reflects CA measurement issues. 1/ Staff also adjusted the CA gap to better reflect the authorities' demographic projections and current immigration targets, 2/ and a steeper-than-usual discount between Canadian oil prices and international prices. 3/ As such, staff estimate the CA norm to be about 1.8 percent of GDP, with the CA gap between -3.4 and -0.4 percent of GDP. | |
| CA Assessment 2017 | Actual CA: -2.9 \| Cycl. Adj. CA: -2.4 \| EBA CA Norm: 2.2 \| EBA CA Gap: -4.6 \| Staff Adj.: -2.7 \| Staff CA Gap: -1.9 | |
| **Real exchange rate** | **Background.** The real effective exchange rate (REER) appreciated by around 1.5 percent on an annual average basis between 2016 and 2017. Estimates through [May] 2018 show that the REER has been unchanged relative to the 2017 average.<br>**Assessment.** The EBA REER index model points to an overvaluation of 2.2 percent in 2017, while the REER level model points to an undervaluation of around 6 percent. In staff's view, the REER level model could overstate the extent of undervaluation. 4/ Consistent with the assessed CA gap, staff estimates that the real effective exchange rate is overvalued by about 1 to 13 percent relative to medium-term fundamentals and desirable policies. 5/ | |
| **Capital and financial accounts: flows and policy measures** | **Background.** The CA deficit in 2017 has been financed by net portfolio inflows (4.9 percent of GDP). Non-resident investors mostly purchased corporate debt securities (59 percent of portfolio net inflows). Foreign acquisition of Canadian equities and government debt securities stood at 10 and 31 percent, respectively. In 2017 foreign direct investment recorded a higher net outflow of 3.3 percent of GDP (2.4 percent of GDP in 2016).<br>**Assessment**. Canada has an open capital account. Vulnerabilities are limited by a credible commitment to a floating exchange rate and, while the government is running fiscal deficits slightly less than 1 percent of GDP in the near term, there is strong and credible commitment to fiscal consolidation over the medium term. | |
| **FX intervention and reserves level** | **Background.** Canada has a free-floating exchange rate regime, and has not intervened in the foreign exchange market since September 1998 (except for participating in internationally concerted interventions). Canada has limited reserves but its central bank has standing swap arrangements with the U.S. Federal Reserve and four other major central banks (it has not drawn on these swap lines).<br>**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 arrangement, reduces the need for reserve holding. | |
| **Technical Background Notes** | 1/ The statistical treatment of retained earnings on portfolio equity and inflation is estimated to generate a downward bias in the income balance of the current account of the order of 1.7 percent of GDP.<br>2/ EBA uses UN demographic projections. These differ from the authorities' projections due to methodological differences. The authorities' projections suggest slightly higher population growth and a slightly lower CA norm. The authorities' demographic projections also do not incorporate recent increases in immigration targets, which are assumed to be permanent. Together, these effects are assumed to reduce the EBA estimate of the CA norm by around 0.4 percent.<br>3/ The price discount between Canadian crude (WCS) and the West Texas benchmark has been $10 per barrel more than its historical average. This amounts to a temporary reduction in oil export prices by around 20 percent and suggests a higher underlying CA position (by around 0.6 percent of GDP).<br>4/ The approach includes commodity terms of trade rather than oil prices as an explanatory variable, while Canada's REER has mirrored movements in oil prices much more closely than its commodity terms of trade.<br>5/ The semi-elasticity of the CA with respect to the REER is estimated at 0.27. | |

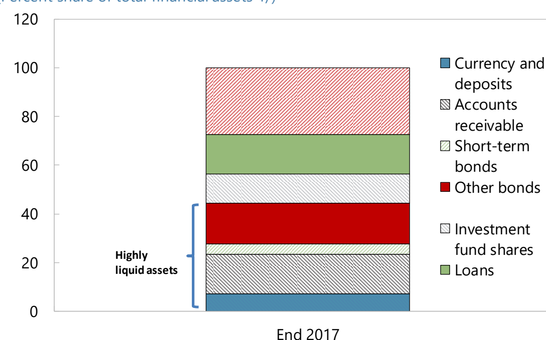
# Annex II. Public Debt Sustainability Analysis

*The overall assessment is broadly unchanged from the 2017 Article IV staff report. Canada's public debt remains on a sustainable trajectory over the medium term. After peaking at 91.1 percent in 2016, the ratio of gross debt to GDP fell to 89.7 percent in 2017. Under the baseline scenario, the gross debt-to-GDP ratio is projected to gradually decline to 76.3 percent by 2023, reflecting fiscal consolidation and favorable growth-interest rate differentials for most of the projection horizon. The most significant stress scenario pushes debt to 95 percent, but the probability for debt remaining below 85 percent of GDP is high over the projection horizon. Sizable financial assets (about 62 percent of GDP) provide an additional cushion. The net debt-to-GDP ratio stood at 27.8 percent in 2017 and is expected to fall to about 25 percent by 2023.*

## Fiscal Space

**1. Canada has some fiscal space, even though its gross debt is relatively high compared to its triple-A rated peers**. Canada's general government gross debt is 89.7 percent of GDP. If accounts payable are excluded to make it internationally comparable, gross debt falls to just below 70 percent of GDP, but this is still high among economies with AAA ratings.[1] Nonetheless, the general government holds sizable financial assets (about 62 percent of GDP), which includes a broad range of assets (currency and deposits, debt securities, loans, equity and investment fund shares, and accounts receivable), and net debt stood at 27.8 percent of GDP in 2017. At the federal level, gross debt is considerably lower at 38 percent of GDP.

Canada: General Government Financial Assets Composition
(Percent share of total financial assets 1/)




Sources: Statistics Canada; and Haver Analytics.
1/ Total financial assets are on an unconsolidated basis.

## Baseline Scenario and Realism of Projections

- *Fiscal adjustment*. The general government is expected to gradually consolidate over the projection horizon. The general government primary deficit is projected to decline from 0.9 percent of GDP in 2018 to 0.4 percent by 2023.

- *Gross debt dynamics*. Interest rate and growth differentials are expected to be favorable in the near term, with real GDP growth exceeding real interest rates until 2021, contributing to a reduction in the gross debt to GDP ratio. However, from 2022 onward, real interest rates are expected to exceed real GDP growth, putting upward pressure on debt dynamics. Nonetheless,

[1] The average debt of 10 S&P AAA-rated economies (excluding Japan and Liechtenstein). The ratio rises to 71.1 percent of GDP if Japan is included.

due to the steady decline in the primary deficit, the general government gross debt-to-GDP ratio is expected to fall to 76.3 percent by 2023.

- *Net debt dynamics.* The general government holds sizable financial assets but if only highly-liquid assets were included (28 percent of GDP; currency, deposits, and bonds), the net debt-to-GDP ratio would be higher at around 62 percent. The net debt ratio is expected to fall to 25 percent by 2023.

- *Gross financing needs.* Gross financing needs were around 16 percent of GDP in 2017 and are expected to hover within a range of 15-18 percent of GDP through the projection horizon, below the indicative high-risk threshold of 20 percent.

- *Realism of baseline projections.* Projection errors in recent years for real GDP growth, primary balance, and inflation were moderate, with the median forecast error in line with other economies. There is no evidence of a systematic projection bias in the baseline assumptions that could undermine the DSA assessment.

- *Market perceptions.* Confidence in Canada's sovereign debt is high. Canada has maintained AAA ratings since 2002. In early June 2018, Canada's benchmark 10-year bond yields were around 2.2-2.3 percent, about 65-68 basis points *below* U.S. 10-year treasury note yields.

**Public DSA Risk Assessment**

**2. The fan charts illustrate the possible evolution of the debt ratio over the medium term and are based on both the symmetric and asymmetric distributions of risk.** Under the symmetric distribution of risk, there is more than a 75 percent probability that debt will be below 85 percent of GDP over the medium term. If restrictions are imposed on the primary balance (i.e., the asymmetric scenario, where it is assumed that there are no positive shocks to the primary balance), there is still at least 60 percent chance that the debt path will remain below 85 percent of GDP over the projection horizon.

**Stress Tests**

- *Primary balance shock*. A deterioration in the primary balance by about one percent of GDP would raise the gross debt-to-GDP ratio by about 2 percentage points over the projection period. The sovereign risk premium is assumed to increase by 25 basis points for each one percent of GDP deterioration in the primary balance, resulting in higher gross financing needs of 1-2 percentage points of GDP compared to the baseline.

- *Growth shock*. A one standard deviation shock to growth in 2019 and 2020 will reduce real GDP growth rates to about 0-0.2 percent. This would lead to a deterioration in the primary balance, with the deficit peaking at 2.3 percent in 2020. The gross debt-to-GDP ratio will revert to nearly 90 percent of GDP in 2019, but would return to a downward path over the projection period, as

GDP growth recovers. Gross financing needs will also rise faster until 2020, about 2-3 percentage points higher than the baseline.

- *Interest rate shock*. An increase in the sovereign risk premium by 200 basis points for two years would raise the effective interest rate ¼-¾ percentage points higher than the baseline. The impact on debt and gross financing needs are mild.

- *Exchange rate shock*. Given that about 90 percent of general government outstanding marketable debt instruments are in Canadian dollars, the fiscal impact of an exchange rate shock is minimal, even with a substantial exchange rate depreciation of about 23 percent (which Canada experienced in 2008).

- *Stagnant growth in major economies*. Structurally weak growth in key advanced and emerging economies would reduce demand for Canadian exports. Canada's real GDP growth could fall below the baseline scenario by ½ percentage points over the projection horizon. In this scenario, the gross debt-to-GDP ratio will still fall but at a much slower pace.

- *Tail risk scenario, combining growth and housing market shock*: A severe recession that reduces real GDP growth by two standard deviations in 2018 (to minus 1.6 percent) and one standard deviation (to 0 percent) in 2019 could precipitate a sharp housing market correction. Mortgage insurers could come under stress and would need to be partially bailed out. In this tail event, the government would be forced to increase its non-interest expenditure by 20 percent of government guarantees of mortgage insurance (equivalent to 2½ percent of GDP). The debt-to GDP ratio would rise to just below 95 percent of GDP while gross financing needs would reach 25 percent of GDP at its peak.

### Accounting Issues for International Comparisons

- Canada's general government debt includes sizable accounts payable, which many advanced economies do not report. If accounts payable were excluded, general government debt would be about 69 percent of GDP in 2017.
- Public debt increased in recent years, reflecting the government's policy to fund public sector employee pension plans by issuing new debt. General government debt as reported here does not include unfunded pension liabilities. Many advanced economies do not report unfunded pension liabilities and as such they are excluded from measures of public sector debt to allow for consistent international comparison. General government debt, including unfunded pension liabilities, would be about 105 percent of GDP on a gross basis.

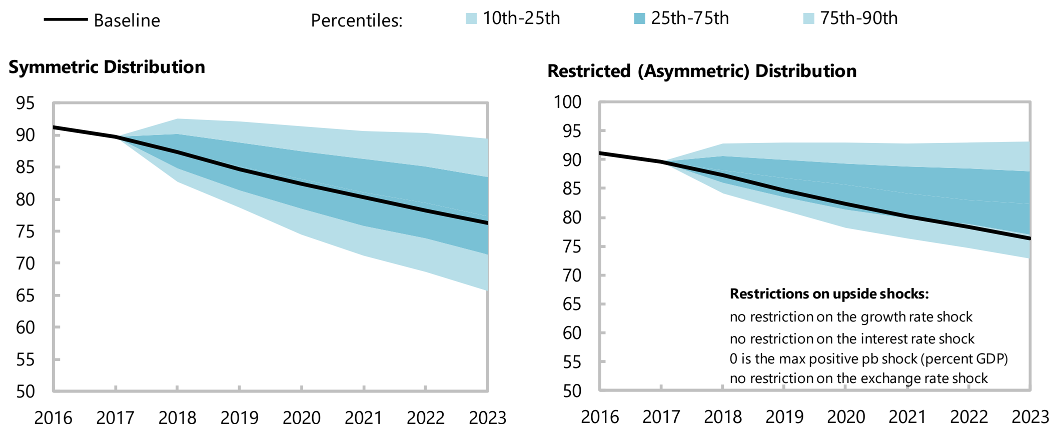
## Figure 1. Canada Public DSA Risk Assessment

### Heat Map

| | | | | | |
|---|---|---|---|---|---|
| Debt level [1/] | Real GDP Growth Shock | Primary Balance Shock | Real Interest Rate Shock | Exchange Rate Shock | Contingent Liability shock |
| Gross financing needs [2/] | Real GDP Growth Shock | Primary Balance Shock | Real Interest Rate Shock | Exchange Rate Shock | Contingent Liability Shock |
| Debt profile [3/] | Market Perception | External Financing Requirements | Change in the Share of Short-Term Debt | Public Debt Held by Non-Residents | Foreign Currency Debt |

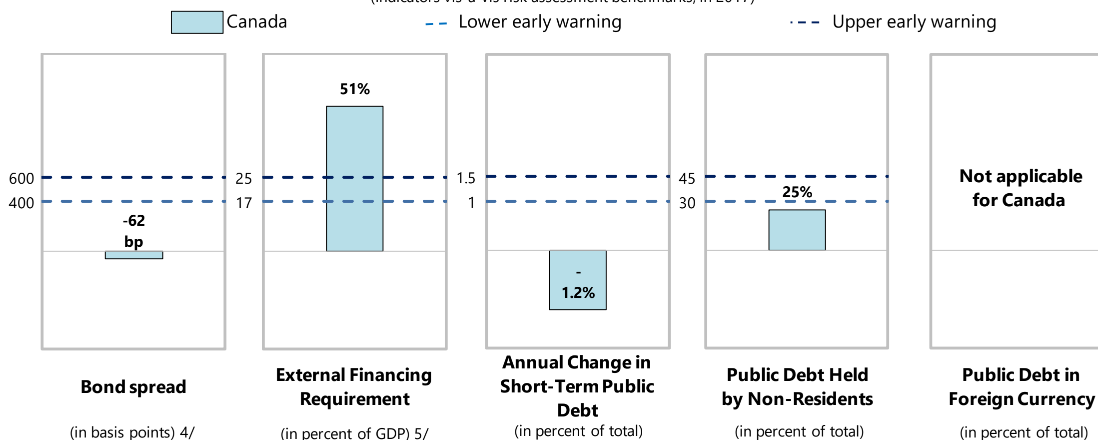
### Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)




### Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2017)




Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 85% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 20% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

400 and 600 basis points for bond spreads; 17 and 25 percent of GDP for external financing requirement; 1 and 1.5 percent for change in the share of short-term debt; 30 and 45 percent for the public debt held by non-residents.

4/ Long-term bond spread over U.S. bonds, an average over the last 3 months, 07-Mar-18 through 05-Jun-18.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

## Figure 2. Canada Public Sector Debt Sustainability Analysis (DSA) – Baseline Scenario

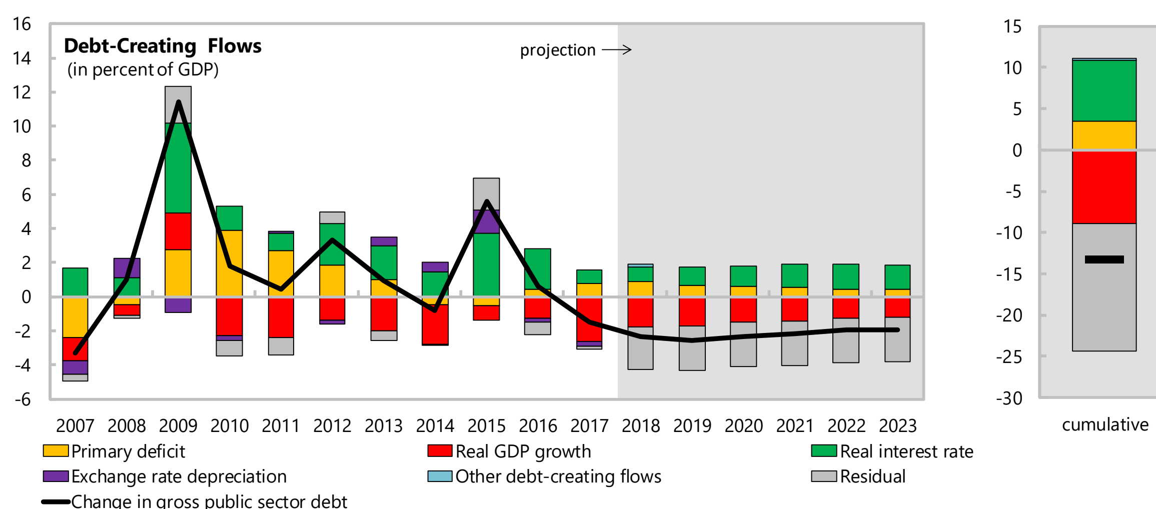
(in percent of GDP unless otherwise indicated)

### Debt, Economic and Market Indicators [1/]

| | Actual | | | Projections | | | | | | As of June 05, 2018 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2007-2015 [2/] | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Sovereign Spreads | | |
| Nominal gross public debt | 80.3 | 91.1 | 89.7 | 87.3 | 84.7 | 82.4 | 80.2 | 78.3 | 76.3 | EMBIG (bp) 3/ | | -68 |
| Public gross financing needs | 16.6 | 16.7 | 16.1 | 14.8 | 17.9 | 18.4 | 17.3 | 17.2 | 16.3 | 5Y CDS (bp) | | ... |
| Net public debt | 25.8 | 28.5 | 27.8 | 27.6 | 27.2 | 26.7 | 26.1 | 25.6 | 25.1 | | | |
| Real GDP growth (in percent) | 1.6 | 1.4 | 3.0 | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 | 1.6 | Ratings | Foreign | Local |
| Inflation (GDP deflator, in percent) | 1.7 | 0.6 | 2.3 | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | Moody's | Aaa | Aaa |
| Nominal GDP growth (in percent) | 3.3 | 2.0 | 5.4 | 4.3 | 4.2 | 3.9 | 3.8 | 3.6 | 3.6 | S&Ps | AAA | AAA |
| Effective interest rate (in percent) [4/] | 4.7 | 3.3 | 3.3 | 3.2 | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 | Fitch | AAA | AAA |

### Contribution to Changes in Public Debt

| | Actual | | | Projections | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2007-2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | cumulative | debt-stabilizing |
| Change in gross public sector debt | 2.3 | 0.6 | -1.5 | -2.4 | -2.6 | -2.3 | -2.2 | -2.0 | -2.0 | -13.3 | primary |
| Identified debt-creating flows | 2.1 | 1.3 | -1.4 | 0.1 | 0.0 | 0.3 | 0.5 | 0.6 | 0.7 | 2.2 | balance [9/] |
| Primary deficit | 0.9 | 0.4 | 0.8 | 0.9 | 0.7 | 0.6 | 0.5 | 0.5 | 0.4 | 3.5 | 0.2 |
| Primary (noninterest) revenue and gra | 36.2 | 37.3 | 36.7 | 36.7 | 36.8 | 36.7 | 36.7 | 36.8 | 36.8 | 220.5 | |
| Primary (noninterest) expenditure | 37.1 | 37.7 | 37.5 | 37.6 | 37.4 | 37.3 | 37.3 | 37.2 | 37.2 | 224.0 | |
| Automatic debt dynamics [5/] | 1.2 | 0.9 | -2.1 | -0.9 | -0.7 | -0.3 | -0.1 | 0.2 | 0.2 | -1.5 | |
| Interest rate/growth differential [6/] | 1.0 | 1.1 | -1.8 | -0.9 | -0.7 | -0.3 | -0.1 | 0.2 | 0.2 | -1.5 | |
| Of which: real interest rate | 2.2 | 2.4 | 0.8 | 0.8 | 1.0 | 1.2 | 1.4 | 1.4 | 1.4 | 7.3 | |
| Of which: real GDP growth | -1.2 | -1.3 | -2.6 | -1.8 | -1.7 | -1.5 | -1.4 | -1.3 | -1.2 | -8.9 | |
| Exchange rate depreciation [7/] | 0.2 | -0.2 | -0.3 | ... | ... | ... | ... | ... | ... | ... | |
| Other identified debt-creating flows | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | |
| Residual, including asset changes [8/] | 0.2 | -0.7 | -0.1 | -2.5 | -2.6 | -2.6 | -2.6 | -2.6 | -2.6 | -15.5 | |




Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over U.S. bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

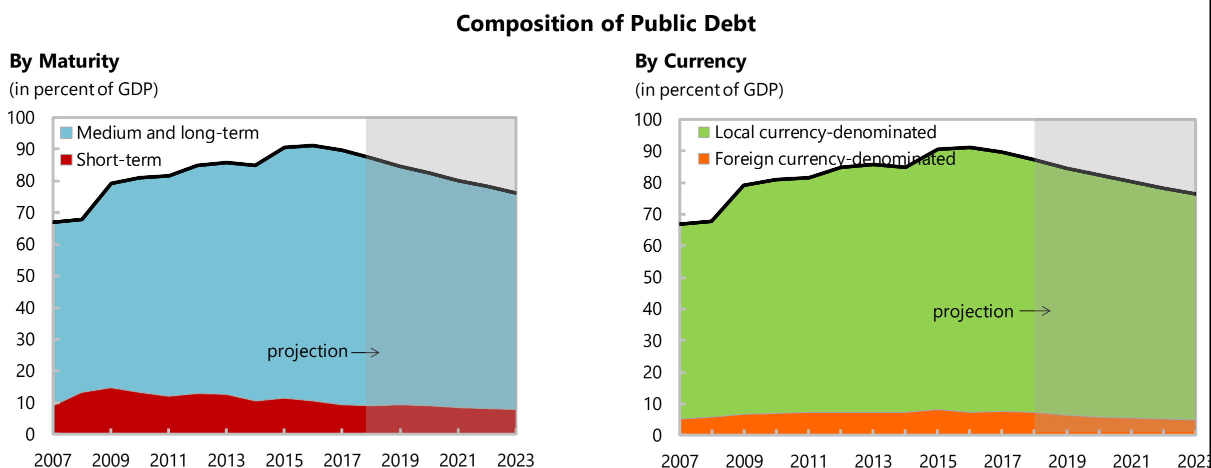
6/ The real interest rate contribution is derived from the numerator in footnote 5 as r - π (1+g) and the real growth contribution as -g.

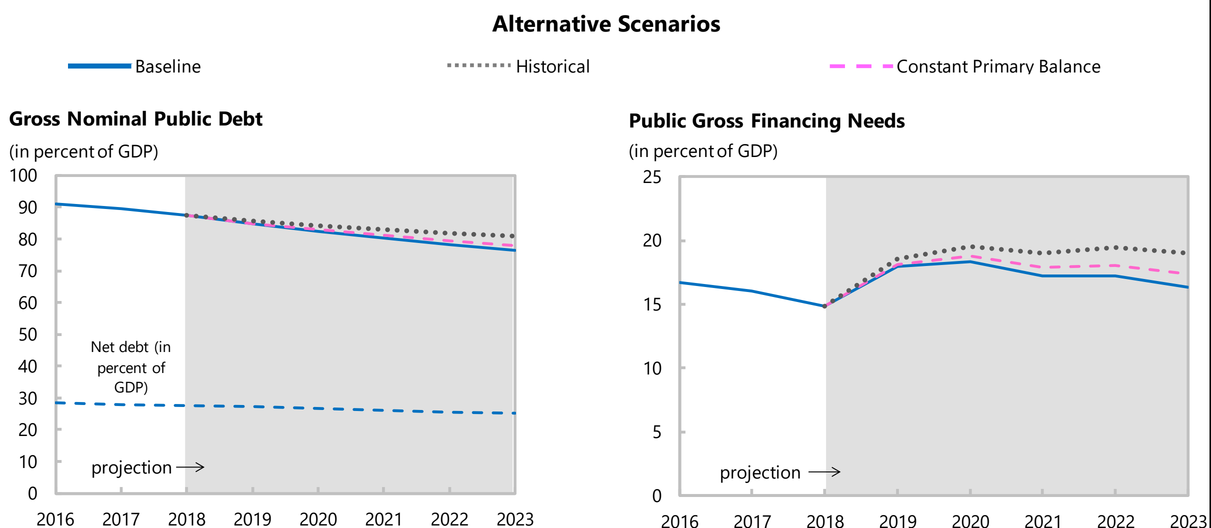
7/ The exchange rate contribution is derived from the numerator in footnote 5 as ae(1+r).

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

## Figure 3. Canada Public DSA – Composition of Public Debt and Alternative Scenarios




### Underlying Assumptions
(in percent)

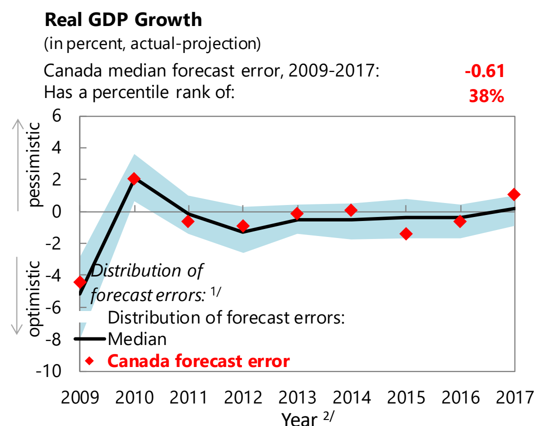
| **Baseline Scenario** | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Real GDP growth | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 | 1.6 |
| Inflation | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Primary Balance | -0.9 | -0.7 | -0.6 | -0.5 | -0.5 | -0.4 |
| Effective interest rate | 3.2 | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 |
| **Constant Primary Balance Scenario** | | | | | | |
| Real GDP growth | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 | 1.6 |
| Inflation | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Primary Balance | -0.9 | -0.9 | -0.9 | -0.9 | -0.9 | -0.9 |
| Effective interest rate | 3.2 | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 |

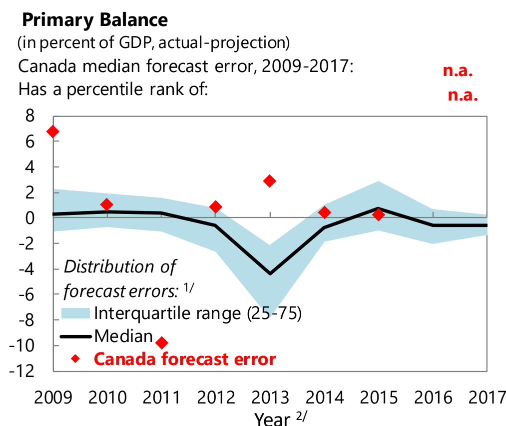
| **Historical Scenario** | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Real GDP growth | 2.1 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Inflation | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Primary Balance | -0.9 | -1.2 | -1.2 | -1.2 | -1.2 | -1.2 |
| Effective interest rate | 3.2 | 3.4 | 3.7 | 4.0 | 4.2 | 4.3 |

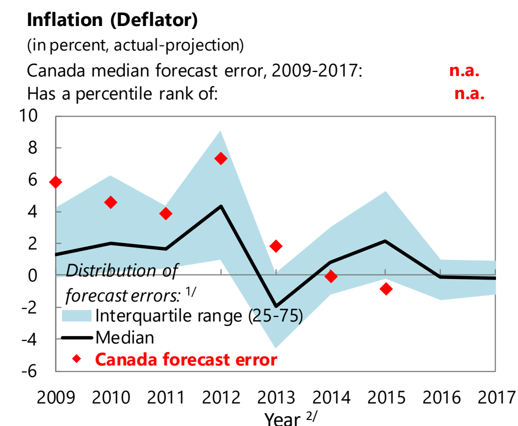
Source: IMF staff.

# Figure 4. Canada Public DSA – Realism of Baseline Assumptions

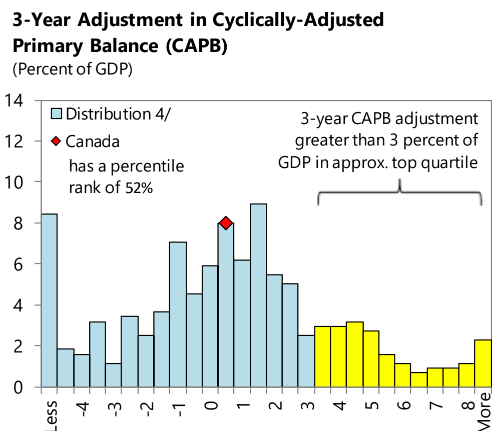
## Forecast Track Record, versus all countries

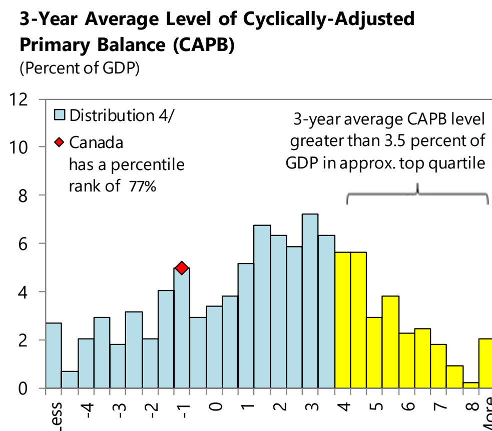


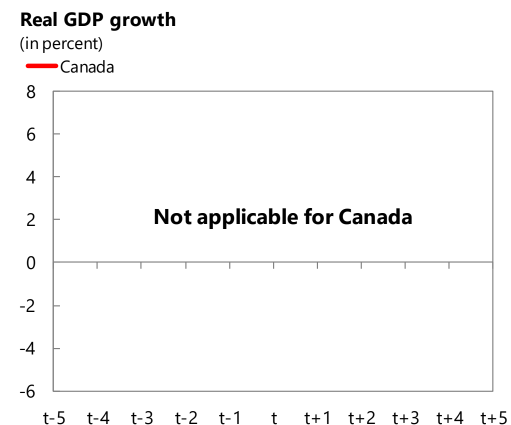




## Assessing the Realism of Projected Fiscal Adjustment




## Boom-Bust Analysis 3/




Source : IMF Staff.

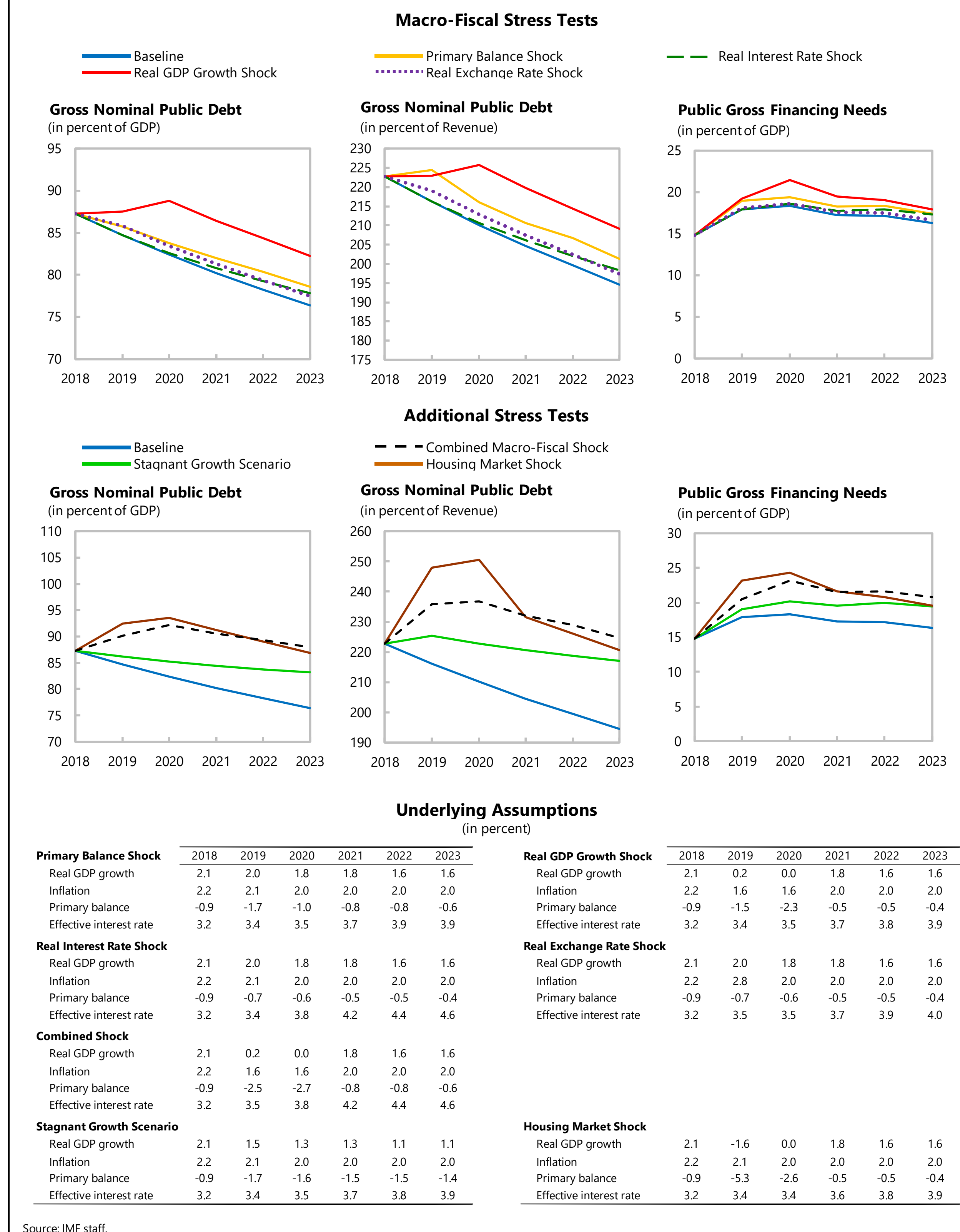
1/ Plotted distribution includes all countries, percentile rank refers to all countries.

2/ Projections made in the spring WEO vintage of the preceding year.

3/ Not applicable for Canada, as it meets neither the positive output gap criterion nor the private credit growth criterion.

4/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

## Figure 5. Canada Public DSA – Stress Test




### Underlying Assumptions
(in percent)

| **Primary Balance Shock** | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Real GDP growth | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 | 1.6 |
| Inflation | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Primary balance | -0.9 | -1.7 | -1.0 | -0.8 | -0.8 | -0.6 |
| Effective interest rate | 3.2 | 3.4 | 3.5 | 3.7 | 3.9 | 3.9 |
| **Real Interest Rate Shock** | | | | | | |
| Real GDP growth | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 | 1.6 |
| Inflation | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Primary balance | -0.9 | -0.7 | -0.6 | -0.5 | -0.5 | -0.4 |
| Effective interest rate | 3.2 | 3.4 | 3.8 | 4.2 | 4.4 | 4.6 |
| **Combined Shock** | | | | | | |
| Real GDP growth | 2.1 | 0.2 | 0.0 | 1.8 | 1.6 | 1.6 |
| Inflation | 2.2 | 1.6 | 1.6 | 2.0 | 2.0 | 2.0 |
| Primary balance | -0.9 | -2.5 | -2.7 | -0.8 | -0.8 | -0.6 |
| Effective interest rate | 3.2 | 3.5 | 3.8 | 4.2 | 4.4 | 4.6 |
| **Stagnant Growth Scenario** | | | | | | |
| Real GDP growth | 2.1 | 1.5 | 1.3 | 1.3 | 1.1 | 1.1 |
| Inflation | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Primary balance | -0.9 | -1.7 | -1.6 | -1.5 | -1.5 | -1.4 |
| Effective interest rate | 3.2 | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 |

| **Real GDP Growth Shock** | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Real GDP growth | 2.1 | 0.2 | 0.0 | 1.8 | 1.6 | 1.6 |
| Inflation | 2.2 | 1.6 | 1.6 | 2.0 | 2.0 | 2.0 |
| Primary balance | -0.9 | -1.5 | -2.3 | -0.5 | -0.5 | -0.4 |
| Effective interest rate | 3.2 | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 |
| **Real Exchange Rate Shock** | | | | | | |
| Real GDP growth | 2.1 | 2.0 | 1.8 | 1.8 | 1.6 | 1.6 |
| Inflation | 2.2 | 2.8 | 2.0 | 2.0 | 2.0 | 2.0 |
| Primary balance | -0.9 | -0.7 | -0.6 | -0.5 | -0.5 | -0.4 |
| Effective interest rate | 3.2 | 3.5 | 3.5 | 3.7 | 3.9 | 4.0 |
| **Housing Market Shock** | | | | | | |
| Real GDP growth | 2.1 | -1.6 | 0.0 | 1.8 | 1.6 | 1.6 |
| Inflation | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Primary balance | -0.9 | -5.3 | -2.6 | -0.5 | -0.5 | -0.4 |
| Effective interest rate | 3.2 | 3.4 | 3.4 | 3.6 | 3.8 | 3.9 |

Source: IMF staff.

# Annex III. Housing-Related Measures to Safeguard Financial Stability

| Annex III. Table 1. Changes in Mortgage Insurance Rules | |
|---|---|
| July 2008 (effective on October 2008) | Maximum amortization for new government backed insured mortgages was lowered (from 40 to 35 years)<br>Maximum LTV for new mortgages was reduced (from 100 to 95)<br>Minimum credit score requirement (of 620) was introduced)<br>Maximum of 45 per cent total debt service ratio was introduced (the amount of gross income that is spent on servicing debt and housing-related expenses such as heat or condo fees).<br>Loan documentation standards strengthened to ensure reasonableness of property value and of the borrower's sources and level of income |
| February 2010 (effective on April 2010) | Maximum LTV for insured refinanced mortgages was lowered (from 95 to 90 percent)<br>Minimum down payment on properties not occupied by owner was raised (from 5 to 20 percent)<br>More stringent eligibility criteria were introduced (all borrowers are required to meet the standards for a 5-year benchmark fixed-rate mortgage, even if they choose a mortgage with a variable interest rate and shorter term. |
| January 2011 (effective on March 2011) | Maximum amortization for new government backed insured mortgages was lowered (from 35 to 30 years)<br>Maximum LTV refinanced mortgages was lowered (from 90 to 85 percent)<br>Government-backed insurance on non-amortizing lines of credit secured by houses (HELOCs) withdrawn in April |
| June 2012 (effective on July 2012) | Maximum amortization for new government backed insured mortgages was lowered (from 30 to 25 years)<br>Maximum LTV for refinanced mortgages was lowered (from 85 to 80 percent)<br>Maximum gross debt service ratio and maximum total debt service ratios were capped at 39 percent and 44 percent respectively<br>Government-backed insured mortgages limited to homes with a purchase price of less than $1 million |
| February 2014 (effective on May 2014) | Mortgage insurance premiums were raised |
| November 2014 (full implementation by June 30, 2015) | Residential Mortgage Insurance Underwriting Practices and Procedures (Guideline B21) was issued. This guideline:<br>-outlines OSFI's expectations concerning mortgage insurers' governance and internal risk management practices<br>-outlines principles for mortgage insurers on internal underwriting operations, including setting prudent requirements for lenders and applying appropriate due diligence to lenders' practices<br>-enhances disclosure requirements, which will support greater transparency, clarity and public confidence in mortgage insurers' residential mortgage insurance underwriting practices |
| April 2015 (effective on June 2015) | Mortgage insurance premiums were raised |
| December 11, 2015 (effective on February 2016) | The minimum down payment for new insured mortgages increased from 5 to 10 percent for the portion of the house price above $500.000. The 5 percent minimum down payment for properties up to $500,000 remained unchanged |
| December 11, 2015 (effective on July 2016) | Issuance limits for NHA MBS in 2016 will be kept effectively unchanged as part of the ongoing effort to limit government involvement in the mortgage market |
| December 11, 2015 (effective on July 2016) | Guarantee fee for NHA MBS and the CMB program will be increased to encourage the development of private market funding alternatives by narrowing the funding cost difference between government sponsored and private market funding sources |
| October 3, 2016 (effective on October 17, 2016) | To ensure the uniform rules for all insured mortgages, all new mortgage borrowers with a down payment of less than 20% and seeking mortgage insurance are required to qualify at the posted rate for a conventional mortgage for a five-year term or the contract rate, whichever is higher |
| October 3, 2016 (effective on November 30, 2016) | The standard for a low-ratio mortgage portfolio insurance are tightened to become uniform with those for insured high ratio-mortgages |

| Annex III. Table 2. Other Housing Finance Related Regulatory Measures | |
|---|---|
| June 2011 (effective on January 1, 2013) | Protection of Residential Mortgage Hypothecary Insurance Act (PRMHIA) and amendments to the National Housing Act assented<br>-Formalizes the rules for government-backed mortgage insurance and other existing arrangements with private mortgage insurers<br>- Provision for the Minister of Finance to charge fees to compensate the Government for its exposure to risk represented by loan insurance |
| November 2011/January 2012 | IFRS standards were implemented requiring banks to report debt securitizations on balance sheet |
| March 2012 | Economic Action Plan 2012 announcements<br>-Canadian banks prohibited from issuing covered bonds backed by government-insured mortgages (sets strong eligibility criteria for mortgages in the cover pool)<br>-CMHC designated as administrator of the covered bond framework<br>-CMHC's mandate was enhanced to include financial stability as an objective of CMHC's commercial activities<br>-CMHC commercial activities subject to OSFI examination |
| June 2012 | Guideline on Sound Residential Mortgage Underwriting Practices (B-20)<br>-A guideline for residential mortgage underwriting practices and procedures was issued by OSFI (including assessment of borrower's background and demonstrated willingness to service debt payment in a timely manner, assessment of borrower's capacity to service debt, assessment of property value/collateral, effective credit and counterparty risk management, comprehensive residential mortgage underwriting policy)<br>- Maximum LTV on the revolving portion of HELOCs Cut (from 80 to 65 percent)<br>-Stated income mortgages are no longer allowed without some verification of income |
| February 2014 | Economic Action Plan 2014 announcements<br>-CMHC will pay guarantee fees to the Receiver General to compensate for mortgage insurance risks (pursuant to NHA 8.2), effective January 1,2014. This will align CMHC with guarantee fees paid by private mortgage insurers. Fees are 3.25 percent of premiums written and 10 basis points on new portfolio insurance written<br>-CMHC will reduce its annual limit of issuance of portfolio insurance from $11 billion to $9 billion<br>- For 2014, the Minister of Finance authorized $80 billion for NHA MBS (down from $85 billion in 2013) and $40 billion for CMB (down from $50 billion in 2013) |
| September 2014 (effective on January 1, 2015) | Revised Minimum Capital Test Guideline for property and casualty insurers<br>-The guideline introduces new and updated risk factors and margins plus a revised definition of available capital |
| May 15, 2015 | Amendments to PRMHIA. Substitution of loans in portfolio insurance pools was prohibited to increase market discipline in residential lending and reduce taxpayer exposure to the housing sector |
| December 11, 2015 | CMHC announced changes to its securitization programs<br>-Changes in the guarantee fee schedule (effective on July 1,2016). Fees were raised for large MRS issuers<br>- For 2016, the Minister of Finance authorized $105 billion for NHA MBS and $40 billion for CMB.<br>- OSFI announced its plan to update the regulatory capital requirements for residential mortgages<br>-OSFI will propose a risk-sensitive floor for one of the model inputs (losses in the event of default) that will be tied to increases in local property prices and/or to house prices that are high relative to borrower incomes<br>- For federally regulated private mortgage insurers, OSFI will introduce a new standardized approach that updates the capital requirements for mortgage guarantee insurance risk. It will require more capital when house prices are high relative to borrower incomes |
| February 10, 2016 (effective on July 1, 2016) | The DOF required that portfolio-insured loans be funded only through CMHC securitization programs |
| October 17, 2017 (effective on January 1, 2018) | OSFI revised its Guideline on Residential Mortgage Underwriting Practices and Procedures (B20):<br>-setting a new minimum qualifying rate, or “stress test” for uninsured mortgages: the minimum qualifying rate for uninsured mortgages has to be the greater of the five-year benchmark rate published by the Bank of Canada or the contractual mortgage rate +2%;<br>-federally regulated financial institutions must establish and adhere to appropriate LTV ratio limits that are reflective of risk and are updated as housing markets and the economic environment evolve;<br>-placing restrictions on certain lending arrangements that are designed, or appear designed to circumvent LTV limits. |

# Appendix I. CPTPP and NAFTA Scenarios: The Model, Data, and Assumptions[1]

## Model

**1. The scenarios in the report were produced using the GTAP Computable General Equilibrium (CGE) model**. It is a standard, static computable general equilibrium model, documented in Hertel et al. (1998) and Carong, et al. (2017). The model solves for a new, market-clearing equilibrium solution after all prices and quantities adjust to an economic shock. Results describe a medium-term adjustment period of about 7- 10 years, in which factors are fully mobile but dynamic investment and productivity gains do not yet occur.

**2. The model assumes perfect competition.** It describes import demand using nested Armington aggregation functions that define substitutability between domestic goods and imports, and among suppliers of imports. A constant elasticity of demand function describes final consumer demand; transformation functions describe factor mobility among industries; and production functions describe factor substitutability in production technologies. The Armington aggregation and the consumption, factor mobility and factor substitutability are governed by elasticities of substitution and income that are drawn from the literature and provided in the GTAP database. Armington parameter values for textiles/apparel and vehicles/parts are adjusted slightly downward to better reflect the established cross-border supply chains that have developed in these industries.

## Database Aggregation

**3. The GTAP v10 database describes the world economy in 2014.** It defines 140 regions and 57 commodities that are aggregated for this study into 16 sectors (table 1) and 7 regions (table 2). This study also aggregates GTAP's eight factors of production into four: capital, land, unskilled labor and skilled labor. The motor vehicle sector is then split into motor vehicles and motor vehicle parts.

## Split of Motor Vehicle Sector

**4. The motor vehicle sector in the GTAP database is split into two sectors, motor vehicles and motor vehicle parts, using the SplitCom utility (table 3).** Data on production, trade, employment, and tax rates for each commodity and region in the model are inputs into the utility, which then rebalances the global database to split the motor vehicle sector into vehicles and parts. All other data in the GTAP database are unaffected, and the sum of data for the new variables describing the subdivided sectors is equal to the values of the original sector.[2]

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[1] Prepared by Mary Burfisher and Troy Matheson. Detailed results can be found in Burfisher, Mary. and Troy Matheson (forthcoming), "The Future of NAFTA: Where to Next?," International Monetary Fund Working Paper.

[2] Data sources used for the split are: World Integrated Trade Solution (WITS); Eurostat Global Affairs Canada; Government of Canada; Ibisworld; International Organization of Motor Vehicle Manufacturers; Library of the

(continued)

**Appendix I. Table 1. Sectors in the CGE Model[1/]**

| Sector | Description | Sector | Description |
|---|---|---|---|
| 1. Crops | Paddy rice | 10. Petroleum and coal products | Petroleum, coal products |
| | Wheat | | Chemical, rubber, plastic prods |
| | Cereal grains nec | | Mineral products nec |
| | Vegetables, fruit, nuts | 11. Motor vehicles | Motor vehicles |
| | Oil seeds | 12. Motor vehicle parts | Motor vehicles and parts |
| | Sugar cane, sugar beet | 13. Electronic equipment | Electronic equipment |
| | Plant-based fibers | 14. Machinery and equipment, nec | Transport equipment nec |
| | Crops, nec | | Machinery and equipment nec |
| 2. Livestock | Cattle, sheep, goats, horses | 15. Manufactures, nec | Leather products |
| | Animal products, nec | | Ferrous metals |
| | Raw milk | | Metals nec |
| | Wool, silk-worm cocoons | | Metal products |
| 3. Dairy products | Milk, butter, cheese, yoghurt | | Manufactures nec |
| 4. Processed foods | Meat from cattle, sheep, etc. | 16. Finance and insurance | Financial services |
| | Meat products nec | | Insurance |
| | Vegetable oils and fats | 17. Other services | Electricity |
| | Processed rice | | Gas manufacture, distribution |
| | Sugar | | Water |
| | Food products nec | | Construction |
| | Beverages and tobacco products | | Trade |
| 5. Resources | Forestry | | Transport nec |
| | Fishing | | Sea transport |
| | Coal | | Air transport |
| | Oil | | Communication |
| | Gas | | Business services nec |
| | Minerals nec | | Recreation and other services |
| 6. Textiles | Textiles | | PubAdmin/Defence/Health/Ed |
| 7. Wearing apparel | Wearing apparel | | Dwellings |
| 8. Wood products | Wood products | | |
| 9. Paper products, publishing | Paper products, publishing | | |

1/ nec = not elsewhere classified.

European Parliament; Ministry of Economy, Pro-Mexico; Japan Ministry of Economy, Trade and Industry (MITI); National Bureau of Statistics of China; United States Census Bureau; United States International Trade Administration; and Aguilar (2016).

| Appendix I. Table 2. Regional Aggregation in the CGE Model | | | | | |
|---|---|---|---|---|---|
| **Region** | **Name** | **Region** | **Name** | **Region** | **Name** |
| Canada | Canada | EU-27 | Poland | ROW | Armenia |
| USA | United States of America | EU-27 | Portugal | ROW | Azerbaijan |
| Mexico | Mexico | EU-27 | Slovakia | ROW | Georgia |
| China | China | EU-27 | Slovenia | ROW | Bahrain |
| China | Hong Kong | EU-27 | Spain | ROW | Iran Islamic Republic of |
| Oth Asia | Australia | EU-27 | Sweden | ROW | Israel |
| Oth Asia | New Zealand | EU-27 | Bulgaria | ROW | Jordan |
| Oth Asia | Rest of Oceania | EU-27 | Croatia | ROW | Kuwait |
| Oth Asia | Japan | EU-27 | Romania | ROW | Oman |
| Oth Asia | Korea | ROW | Rest of North America | ROW | Qatar |
| Oth Asia | Mongolia | ROW | Argentina | ROW | Saudi Arabia |
| Oth Asia | Taiwan | ROW | Bolivia | ROW | Turkey |
| Oth Asia | Rest of East Asia | ROW | Brazil | ROW | United Arab Emirates |
| Oth Asia | Brunei Darussalam | ROW | Chile | ROW | Rest of Western Asia |
| Oth Asia | Cambodia | ROW | Colombia | ROW | Egypt |
| Oth Asia | Indonesia | ROW | Ecuador | ROW | Morocco |
| Oth Asia | Lao People's Democratic Repub. | ROW | Paraguay | ROW | Tunisia |
| Oth Asia | Malaysia | ROW | Peru | ROW | Rest of North Africa |
| Oth Asia | Philippines | ROW | Uruguay | ROW | Benin |
| Oth Asia | Singapore | ROW | Venezuela | ROW | Burkina Faso |
| Oth Asia | Thailand | ROW | Rest of South America | ROW | Cameroon |
| Oth Asia | Viet Nam | ROW | Costa Rica | ROW | Cote d'Ivoire |
| Oth Asia | Rest of Southeast Asia | ROW | Guatemala | ROW | Ghana |
| Oth Asia | Bangladesh | ROW | Honduras | ROW | Guinea |
| Oth Asia | India | ROW | Nicaragua | ROW | Nigeria |
| Oth Asia | Nepal | ROW | Panama | ROW | Senegal |
| Oth Asia | Pakistan | ROW | El Salvador | ROW | Togo |
| Oth Asia | Sri Lanka | ROW | Rest of Central America | ROW | Rest of Western Africa |
| Oth Asia | Rest of South Asia | ROW | Dominican Republic | ROW | Central Africa |
| EU-27 | Austria | ROW | Jamaica | ROW | South Central Africa |
| EU-27 | Belgium | ROW | Puerto Rico | ROW | Ethiopia |
| EU-27 | Cyprus | ROW | Trinidad and Tobago | ROW | Kenya |
| EU-27 | Czech Republic | ROW | Caribbean | ROW | Madagascar |
| EU-27 | Denmark | ROW | United Kingdom | ROW | Malawi |
| EU-27 | Estonia | ROW | Switzerland | ROW | Mauritius |
| EU-27 | Finland | ROW | Norway | ROW | Mozambique |
| EU-27 | France | ROW | Rest of EFTA | ROW | Rwanda |
| EU-27 | Germany | ROW | Albania | ROW | Tanzania |
| EU-27 | Greece | ROW | Belarus | ROW | Uganda |
| EU-27 | Hungary | ROW | Russian Federation | ROW | Zambia |
| EU-27 | Ireland | ROW | Ukraine | ROW | Zimbabwe |
| EU-27 | Italy | ROW | Rest of Eastern Europe | ROW | Rest of Eastern Africa |
| EU-27 | Latvia | ROW | Rest of Europe | ROW | Botswana |
| EU-27 | Lithuania | ROW | Kazakhstan | ROW | Namibia |
| EU-27 | Luxembourg | ROW | Kyrgyzstan | ROW | South Africa |
| EU-27 | Malta | ROW | Tajikistan | ROW | Rest of S. African Customs |
| EU-27 | Netherlands | ROW | Rest of Former USSR | ROW | Rest of the World |

| Appendix I. Table 3. Split of GTAP Motor Vehicle Sector | | |
|---|---|---|
| New Sector | HS Code | NAIC Code |
| Motor vehicles | 8701-05 | 3361 |
| Motor vehicle parts | Parts 8407-8409, 8609, 8706-8708, 8716 | 3362, 3363 |

### Scenarios

**5. A CGE model offers a tool for controlled experiments in which the effects of a change in policy or other shock on an economy can be identified and isolated, while holding all other influences constant.** Likewise, the model can be used to simulate two shocks simultaneously and to describe their separate and combined effects. The approach taken in this analysis is to pose two shocks simultaneously:

(1) A successful outcome for the NAFTA renegotiation combined with implementation of the CPTPP, and

(2) An unsuccessful outcome for the NAFTA renegotiation combined with implementation of the CPTPP.

**6. The elements of each shock are described in table 4. Trade liberalization between Canada and Mexico is undertaken in both the CPTPP and successful NAFTA agreements**. Because the CPTPP negotiation is already completed, their bilateral tariff liberalization and facilitation of services trade are counted as CPTPP outcomes, except for Canada dairy trade. Canadian dairy liberalization in the CPTPP is assumed to provide its members with access comparable to that of Mexico, and duty-free Canada-Mexico dairy trade is assumed to be achieved under the successful NAFTA scenario.

**7. Four sensitivity analyses are also described in table 4.** These are: a successful NAFTA outcome that imposes stricter rules of origin in the motor vehicle and parts sectors; a successful NAFTA outcome combined with an imposed increase in labor costs in the motor vehicles and vehicle parts sectors of Mexico; an unsuccessful NAFTA outcome that is accompanied by rising trade costs for trade with the United States due to increased border enforcement; and a comparison of the successful and unsuccessful outcomes excluding any changes in trade costs among CPTPP and NAFTA members. All four NAFTA sensitivity analyses are carried out in combination with the simultaneous implementation of the CPTPP.

The analysis accounts for 4 types of trade policies:

(1) *Tariffs.* Applied and Most-Favored-Nation (MFN) tariffs and the ad valorem equivalents of tariff-rate quotas (TRQs) are represented as ad valorem import taxes.

(2) *Non-tariff measures (NTMs) applied to goods.* NTMs that create trade frictions such as customs delays are described in ad valorem equivalent (AVE) terms as iceberg-type inefficiencies. In effect, trade inefficiency is measured in terms of the good itself so that as inefficiency increases, less of the exported good arrives at the importer's port.

(3) *NTMs in services*. These are described as the AVEs of import tariffs. The model is recalibrated to describe the AVEs of services.

(4) *Rules of Origin*. While many tariff lines are subject to ROOs, our relatively aggregated model describes them in four sectors: textiles, apparel, motor vehicles, and motor vehicle parts. The costs of complying with existing ROOs are represented as AVEs of import tariffs among NAFTA partners and the model is recalibrated to explicitly include these costs. Compliance costs are reduced by one-half in a successful NAFTA renegotiation. In an unsuccessful negotiation, ROOs are replaced by MFN tariffs on NAFTA trade with the U.S. and remain unchanged on Canada-Mexico trade in these products. The introduction of ROOs on textiles, apparel, vehicles and vehicles parts in the CPTPP region reduces the effective liberalization in that market and is represented by maintaining tariffs of 50 percent of the CPTPP margin of preference for ROO commodities.

**Appendix I. Table 4. Composition of the Scenarios and Sensitivity Analyses**

| | **Tariffs** | **NTMs in Trade in Goods** | **NTMs in Trade in Services** | **Rules of Origin** |
|---|---|---|---|---|
| | | **Scenarios** | | |
| CPTPP | All intra-TPP tariffs eliminated, except no change on Canadian dairy tariff with Mexico with partial reductions on dairy for other members, and partial reduction of Japanese beef tariffs | Trade efficiency gains of 1 percent | AVEs of NTMs in services trade reduced by 25% among TPP members | Tariff cuts for textiles/apparel and vehicles/parts reduced by one-half to represent introduction of ROOs to CPTPP trade; no change in Canada-Mexico ROO trade costs |
| Successful NAFTA | All NAFTA tariffs eliminated | Trade efficiency increased by 1% on U.S. trade with Canada and Mexico | AVEs of NTMs in services on U.S. trade with Canada and Mexico reduced by 25% | ROO trade costs for NAFTA trade in textiles/apparel and vehicles/parts reduced by one-half |
| Unsuccessful NAFTA | MFN rates on U.S. trade with Canada and Mexico | Trade efficiency decreased by 2% on U.S. trade with Canada and Mexico | No change in AVEs of NTMs in services on U.S. trade with Canada and Mexico | ROOs no longer apply on U.S. trade with Canada and Mexico (MFN rates imposed); no change in Canada-Mexico ROO trade costs |
| | | **Sensitivity Analyses** | | |
| Successful NAFTA with stricter ROO | All NAFTA tariffs eliminated | Trade efficiency increased by 1% on U.S. trade with Canada and Mexico | AVEs of NTMs in services on U.S. trade with Canada and Mexico reduced by 25% | ROOs no longer apply on NAFTA trade in autos and parts (MFN rates imposed) |

**Appendix I. Table 4. Composition of the Scenarios and Sensitivity Analyses (Concluded)**

| | | | | |
|---|---|---|---|---|
| Successful NAFTA with increased Mexican labor costs in vehicles and parts production | All NAFTA tariffs eliminated; *50 percentage point increase in factor tax on labor used in Mexican production of vehicles and parts* | Trade efficiency increased by 1% on U.S. trade with Canada and Mexico | AVEs of NTMs in services on U.S. trade with Canada and Mexico reduced by 25% | ROO trade costs for NAFTA trade in textiles/apparel and vehicles/parts reduced by one-half |
| Unsuccessful NAFTA with increasing trade costs on U.S. trade with Canada and Mexico | MFN rates on U.S. trade with Canada and Mexico | Trade efficiency decreased by a range of 2% - 30% on U.S. trade with Canada and Mexico | No change in AVEs of NTMs in services on U.S. trade with Canada and Mexico | ROOs no longer apply on U.S. trade with Canada and Mexico (MFN rates imposed); no change in Canada-Mexico ROO trade costs |
| Successful versus. unsuccessful NAFTA, excluding changes in trade costs | Successful – all NAFTA tariffs eliminated; Unsuccessful - MFN rates imposed on U.S. trade with Canada and Mexico | No changes in trade efficiency among CPTPP members or NAFTA members | Successful - AVEs of NTMs in services on U.S. trade with Canada and Mexico reduced by 25%; Unsuccessful – No change in AVEs of NTMs on U.S. trade with Canada and Mexico | Successful - ROO trade costs for NAFTA trade in textiles/apparel and vehicles/parts reduced by one-half; Unsuccessful – ROOs replace by MFN rates on U.S. trade with Canada and Mexico; no change in Canada-Mexico ROO trade costs |

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INTERNATIONAL MONETARY FUND

# CANADA

June 28, 2018

## STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By

The Western Hemisphere Department
(in consultation with other departments)

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# FUND RELATIONS

(As of May 31, 2018)

**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 | 10,048.77 | 91.15 |
| Reserve Tranche Position | 975.16 | 8.85 |
| Lending to the Fund | | |
| New Arrangements to Borrow | 623.08 | |

| **SDR Department:** | **SDR Million** | **Percent of Allocation** |
|---|---|---|
| Net cumulative allocation | 5,988.08 | 100.00 |
| Holdings | 5,635.35 | 94.11 |

**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 | | | | |
|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 |
| Principal | | | | | |
| Charges/Interest | 0.97 | 2.12 | 2.12 | 2.12 | 2.12 |
| Total | 0.97 | 2.12 | 2.12 | 2.12 | 2.12 |

**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 exchange rate regime is free from exchange restrictions and multiple currency practices. 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 or subsidies on purchases or sales of foreign exchange. Canada has accepted the obligations of Article VIII, Sections 2, 3, and 4 (a), and maintains an exchange system that is free of restrictions on

the making of payments and transfers for current international transactions. 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 2017 consultation with Canada was considered by the Executive Board on July 5, 2017 (IMF Country Report No. 17/210). Canada is on a 12-month consultation cycle.

**2018 Article IV Consultation:** Discussions took place in Vancouver and Montreal during April 30-May; and Toronto and Ottawa during May 15-25 and June 4, 2018. The team comprised Ms. Lim (head), Messrs. Ishi, Matheson, and Alvarez (all WHD), Ms. Arvai (MCM), and Mr. Keen and Ms. Liu (FAD). Ms. Arias Granada and Mr. Ochoa (WHD) provided valuable assistance. Messrs. Werner and Srinivasan (both WHD) joined the mission for the concluding meeting in Ottawa. Ms. Young (OED) and Ms. Zorn (OED) accompanied the mission for parts of the trip, and Ms. Horsman (ED) attended the concluding meeting. The mission met with Finance Minister Morneau, Governor Poloz, Superintendent Rudin, Deputy Minister Rochon, Deputy Governors Lane, Leduc, and Patterson, other senior officials, regulators, provincial governments, representatives from the financial and business sector, academics, and think tanks. The press conference was held on June 4, 2018 in Ottawa.

**FSSA Participation and ROSC Assessments**

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| ***Canada: Financial System Stability Assessment–Volume II: Report on Observance of Standards in the Financial System*** | www.imf.org<br>June 30, 2000 |

**Summary**: The FSSA report concluded that Canada has a stable and highly advanced financial system, which is among the soundest in the world. It is supported by a well-developed regulatory system that shows a high degree of compliance with major international standards. The FSSA report made a few recommendations to further strengthen the regulatory framework and financial system's resilience, most of which have already been addressed, including:

- Introducing capital requirements for the guarantees in life insurance segregated fund (completed by end-2001);
- Tabling legislation granting the Office of the Superintendent of Financial Institutions (OSFI) powers to remove a financial institution's director or senior officer if the person is deemed not suitable to hold that office based on a number of criteria. The latter legislation brought Canada into broad compliance with the Basel Core Principles;
- Making significant progress in harmonizing securities regulation and improving coordination among provincial securities regulators, including through a newly created association of securities regulators, the Canadian Securities Administrators. Although there remain multiple regulators at the provincial level, a Senate commission was created to develop specific recommendations on further harmonization and streamlining of securities regulation.

| ***Canada: Report on the Observance of Standards and Codes—Fiscal Transparency Module*** | IMF Country Report No. 02/51, 03/12/02 |
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**Summary**: The report found that fiscal management in Canada meets the requirements of the fiscal transparency code, and in a number of instances represents best practice. In particular, it highlighted the use of private sector economic forecasts. Fiscal management was also commended for its statistical integrity, impartial tax administration, open procurement, and a transparent regulatory process.

The report found several areas where further improvements would be desirable, including: (i) the preparation of timely, current year estimates of federal and provincial budgets on a comparable basis, (ii) a comprehensive account of the procedures for the budget cycle and expenditure management system, (iii) systematic reporting of the use of reserves for non-economic contingencies, (iv) resumption of publication of reconciled national and public accounts forecasts of major aggregates over the forecast horizon, and (v) publication by all governments of quasi-fiscal activities.

Many of these issues have been addressed, including: (i) the release by Statistics Canada of consolidated data for federal and provincial budgets for 2001–02 (on a Financial Management System basis); (ii) the publication of comprehensive descriptions of budget and expenditure management procedures, including a joint document entitled "Budgeting in Canada" by the Government and the OECD, detailed accounts of policies and procedures on expenditure management at the website of the Treasury Board Secretariat, and the explanation of the budget cycle and process in Budget and Update documents; and (iii) publication of reconciled national and public accounts forecasting.

| ***Canada: Report on the Observance of Standards and Codes—Data Module*** | IMF Country Report No. 03/328, 10/23/03 |
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**Summary**: Canada's macroeconomic statistics are comprehensive, timely, and accurate and thus adequate to conduct effective surveillance of economic and financial policies. Official institutions responsible for the compilation and dissemination of the macroeconomic datasets are supported by adequate legal and institutional frameworks. These frameworks protect confidentiality and ensure that statistical work is conducted within a quality assurance program and with sufficient resources. Integrity is ensured by the professionalism of the staff, transparency in statistical policies and practices, and the provision of ethical guidelines for staff. Compilers generally follow internationally accepted guidelines in the production of the macroeconomic statistics, which is well-supported by excellent efforts to develop source data that facilitate a high degree of accuracy and reliability. Statistics are generally relevant, well documented, available with good frequency on a timely basis, and readily accessible to users, who trust them as objective.

While recognizing the high quality of the macroeconomic data, the report makes recommendations to further strengthen the statistical system, most of which are already being addressed, including these priorities:

- Articulate the roles of Statistics Canada and the Bank of Canada in producing financial sector statistics and explore possibilities for more data sharing of monetary and financial statistics;
- Estimate consumption of fixed capital at replacement cost rather than historic costs now used for the corporate sector in the Canadian System of National Accounts (CSNA);
- Disseminate information on the sources and methods used in compiling quarterly public sector statistics for the quarterly CSNA; and
- Reclassify certain transactions that are not recorded in line with the 5th edition of the Balance of Payments Manual (*BPM5*).

***Canada: Report on the Observance of Standards and Codes—FATF Recommendations for Anti-Money Laundering and Combating the Financing of Terrorism***

IMF Country Report No. 08/372, 12/11/08

**Summary**: Canada's anti-money laundering and combating the financing of terrorism (AML/CFT) framework was last assessed by the Financial Action Task Force (FATF) and the Asia Pacific Group on Money Laundering (APG) in March 2007. Shortcomings were identified in particular with respect to the scope of customer due diligence, the implementation of AML/CFT supervision, and the effectiveness of the financial intelligence unit (FINTRAC). Since 2007, Canada submitted six follow-up reports to the FATF, the last one in February 2014, and took a number of steps to strengthen the framework in these areas. The next mutual evaluation of Canada will be conducted by the Fund and is scheduled in the fourth quarter of 2015.

***Canada: Financial System Stability Assessment-Update***

IMF Country Report No. 08/59, 02/13/08

**Summary**: The FSSA update concluded that Canada's financial system is mature, sophisticated, and well-managed. Financial stability was underpinned by sound macroeconomic policies and strong prudential regulation and supervision, and well-designed deposit insurance and arrangements for crisis management and failure resolution. The banking system appeared sound, with stress tests showing that the major banks could withstand sizeable shocks, although they did faces some challenges related to the global financial turmoil that started in mid-2007. Also, there were some concerns about bank attempts to build on their secure domestic position, to enter highly competitive foreign markets or complex activities. The update reiterated the advantages of moving towards a single securities regulator, including the streamlining of policy development, reductions in compliance costs, and improved enforcement. However, it also recognized the significant improvements to the regulatory system from the creation of the Canadian Securities Administrators (CSA), and the implementation of the passport system.

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| ***Canada: Financial System Stability Assessment-Update*** | IMF Country Report No. 14/29, 02/03/14 |

**Summary**: The FSSA Update found that Canada's financial system successfully navigated the global financial crisis, and stress tests suggest that major Canadian financial institutions are resilient to credit, liquidity, and contagion risks arising from a severe stress scenario. Elevated house prices and high household debt remain an area of concern (despite the substantial level of government-guaranteed mortgage insurance), though targeted prudential and macro-prudential measures are proving to be effective. The regulatory and supervisory framework demonstrates strong compliance with international standards. Nevertheless, the Update called for more clarity around the legal independence of OSFI and for assigning stronger prudential responsibilities to this regulator. In the securities markets, provincial regulators and the federal government have made significant progress in implementing a robust and harmonized framework, but challenges remain in enforcement, risk identification, and timely policy making. The FSSA Update argued that the federal system of safety nets is credible, although there is no single body with an explicit mandate to take a comprehensive view of systemic risks or to undertake crisis preparedness. Improving cooperation between federal and provincial authorities would further reinforce system-wide oversight arrangements.

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| ***Canada: Report on the Observance of Standards and Codes-FATF Recommendations for Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT)*** | IMF Country Report No. 16/293, 09/15/16 |

**Summary**: This report evaluates the observance of standards and codes on Financial Action Task Force recommendations for anti–money laundering and combating the financing of terrorism (AML/CFT) in Canada. The findings reveal that the Canadian authorities have a good understanding of most of Canada's money laundering and terrorism financing risks. AML/CFT cooperation and coordination are generally good at the policy and operational levels. All high-risk areas are covered by AML/CFT measures, except legal counsel, legal firms, and Quebec notaries. This constitutes a significant loophole in Canada's AML/CFT framework. Law enforcement results are not commensurate with the money-laundering risk, and asset recovery is low.

**Technical Assistance**: Not Applicable.

**Resident Representative**: Not Applicable.

# STATISTICAL ISSUES

The quality, coverage, periodicity, and timeliness of Canada's economic data are considered to be adequate both in the context of the Article IV consultation and for purposes of ongoing surveillance. Canada has subscribed to the Fund's Special Data Dissemination Standard (SDDS), and its metadata are posted on the Fund's Dissemination Standards Bulletin Board (DSBB). The data ROSC was published on October 23, 2003.

**Real Sector**. Statistics Canada provides timely and adequate data in monthly, quarterly, and annual frequency thereby facilitating the analyses of economic developments and policy assessments within a quantitative macroeconomic framework. In October 2012, Statistics Canada started aligning the Canadian System of National Accounts (CSNA) with the SNA2008 international standard. The changes introduced in the CSNA2012 included, among others, capitalization of research and development, move to replacement cost-based valuation of consumption of fixed capital, and valuing equity more consistently at market price. Additional changes were introduced with the 2014 release of the CSNA, which for the most part did not have a significant impact on GDP and represented the development of new accounts, improved integration between the CSNA and Government Finance Statistics, additional detail, and presentational changes that better align with international standards (see, Statistics Canada). In 2015 Statistics Canada carried out comprehensive revision to the Canadian System of Macroeconomic Accounts (CSMA). The four main sources of revision with that release of the CSMA were: the integration of Government Finance Statistics, the improved treatment of defined benefit pension plans, the measurement of financial services purchased by households', and updated measures of national wealth.

**Fiscal Sector**. Statistics Canada provides quarterly data (a Statement of Government Operations along with a Balance Sheet) on the general government and its subsectors following the *Government Finance Statistics Manual 2001* (*GFSM 2001*) recommendations. In November 2014, Statistics Canada published the provisional (unconsolidated) data on Canadian Government Finance Statistics (CGFS) for 2008–2012. This covers the statement of operations for all components of general government, as well as federal and provincial and territorial government business enterprises. Data on the functional expenses were also released. Subsequently, in February 2015, estimates for financial flows and the balance sheet of the general government and government business enterprises for 2007–2012 were published. Statistics Canada published Consolidated Government Finance Statistics data for 2008-2014 for the first time in March 2016 and for 2015 in March 2017. In addition, the Department of Finance Canada provides monthly and annual data on the federal government's budget (according to the national presentation) and tax policies. The provided data enable adequate assessment of the impact of fiscal policy measures on Canada's economic performance.

**Financial Sector**. The Bank of Canada and OSFI provide monthly and quarterly data on the broad range of financial variables. However, the 2013 FSSA Update recommended that financial sector data collection and dissemination should be expanded with a view to enhancing coverage, regularity, and availability of time-series to facilitate analysis.

**Monetary Sector**. The Bank of Canada provides timely and adequate coverage of daily, weekly, monthly, and quarterly data related to the monetary sector.

**External Sector**. Statistics Canada provides timely information on a quarterly frequency on the balance of payments, external debt, and the international investment position. Department of Finance Canada provides monthly data on Official International Reserves in a format comparable to the IMF's reserve data template, thus enabling adequate surveillance.

## Canada: Table of Common Indicators Required For Surveillance

| | Date of latest observation | Date received | Frequency of Data[6] | Frequency of Reporting[6] | Frequency of Publication[6] | Memo Items: | |
|---|---|---|---|---|---|---|---|
| | | | | | | Data Quality – Methodological soundness[7] | Data Quality – Accuracy and reliability[8] |
| Exchange Rates | Same day | Same day | D | D | D | | |
| International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1] | May 31, 2018 | June 8, 2018 | W | W | W | | |
| Reserve/Base Money | April, 2018 | June 5, 2018 | M | M | M | LO, O, LO, LO | O, O, O, O, O |
| Broad Money | April, 2018 | June 5, 2018 | M | M | M | | |
| Central Bank Balance Sheet | April, 2018 | May 13, 2018 | M | M | M | | |
| Consolidated Balance Sheet of the Banking System | March 31, 2018 | May 31, 2018 | M | M | M | | |
| Interest Rates[2] | Same day | Same day | D | D | D | | |
| Consumer Price Index | April 2018 | May 18, 2018 | M | M | M | O, O, O, O | O, O, O, O, NA |
| Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4] | 2018 Q1 | June 14, 2018 | Q | Q | Q | O, O, O, O | O, O, O, O, O |
| Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government | March 2018 | June 4, 2018 | M | M | M | | |
| External Current Account Balance | 2018 Q1 | May 30, 2018 | Q | Q | Q | O, O, LO, O | O, O, O, O, O |
| Exports and Imports of Goods and Services | April 2018 | June 06, 2018 | M | M | M | | |
| GDP/GNP | 2018 Q1 | May 31, 2018 | Q | Q | Q | O, O, O, LO | O, O, O, O, O |
| Gross External Debt | 2018 Q1 | June 13, 2018 | Q | Q | Q | | |
| International Investment Position[5] | 2018 Q1 | June 13, 2018 | Q | Q | Q | | |

[1] Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.
[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] Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[6] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).
[7] Reflects the assessment provided in the data ROSC published on October 23, 2003 and based on the findings of the mission that took place during January 22–February 5, 2003 for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning (respectively) concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O), largely observed (LO), largely not observed (LNO), not observed (NO); and not available (NA).
[8] Same as footnote 8, except referring to international standards concerning (respectively) source data, assessment of source data, statistical techniques, assessment and validation of intermediate data and statistical outputs, and revision studies.

**Statement by the Staff Representative on the Canada**
**July 13, 2018**

1. **This note provides information on the countermeasures introduced by the Government of Canada on July 1 in response to U.S. tariffs on Canadian steel and aluminum products.** It is based on information that has become available since the staff report (SM/18/170) was issued and does not alter the staff appraisal.

2. **On May 31, 2018, the U.S. announced the imposition of tariffs on imports of certain steel and aluminum products from Canada (at the rates of 25% and 10%, respectively).** The duties were applied by the U.S. following an investigation into the national security implications of aluminum and steel imports under section 232 of the Trade Expansion Act of 1962. Canada accounts for some 15 percent of U.S. steel imports and almost 40 percent of aluminum imports but steel and aluminum products represent less than 2 percent of Canadian exports and imports.

3. **In response, Canada introduced surtaxes on C$16.6 billion of imports of steel, aluminum, and 79 consumer products from the U.S, which the Canadian authorities indicate is equivalent to the value of 2017 Canadian exports affected by the U.S. tariffs.** Steel products are subject to a 25 percent surtax. Aluminum and other products are subject to a 10 percent surtax.

4. **In addition, the Government of Canada will make available up to C$2 billion to support the steel, aluminum, and manufacturing industries.** The measures will include: (i) extending the duration of work-sharing agreements to help employers retain their skilled workforce and avoid layoffs during challenging times; (ii) increasing funding to the provinces and territories to increase the capacity of current job and training programs available to workers affected by the U.S. measures; (iii) providing liquidity support to affected businesses; and (iv) offering up to $250 million in new support through the Strategic Innovation Fund to help bolster the competitiveness of Canadian manufacturers and better integrate the steel and aluminum supply chain within Canada.