1. The United States, Canada, and the World: Outlook, Risks, and Policies

Global growth remains modest and uneven. Following a setback in early 2015, the pace of global activity rebounded but the growth outlook remains subdued over both short and longer horizons. Western Hemisphere economies figured prominently in these developments and trends. In the United States, following a slow start this year, renewed momentum in the recovery was underpinned by resilient consumption and labor markets, but Canada continued to lose momentum in the wake of lower oil prices. Elsewhere, regional growth will turn slightly negative, against a backdrop of weaker commodity prices, tightening financial conditions, domestic headwinds, and dampened medium-term prospects. Risks to the outlook are tilted to the downside, including possible stagnation in advanced economies coupled with reduced potential growth in emerging markets. Policies to raise potential thus remain a priority in many economies, with investment and structural reform being crucial, including within the region.

Setback and Rebound

Global growth disappointed in the first half of 2015, owing to slower growth in emerging markets and weaker recovery in advanced economies. As discussed in the October 2015 World Economic Outlook, the global economy is projected to expand by 3.1 percent this year (about ½ percentage point below earlier forecasts; see Figure 1.1). In large part, this markdown reflects unexpectedly weak first-quarter activity in North America. Also, a protracted slowdown in emerging markets, including a transition to slower growth in China and weaker performance in oil exporters, is a factor behind slower global growth.

Global activity is expected to regain some momentum in 2016, with growth projected at

Note: Prepared by Hamid Faruqee with Ali Alichi, Kotaro Ishi, Andrea Pescatori, and Juan Solé. Steve Brito, Rania Papageorgiou, and Udi Rosenhand provided excellent research assistance.

Figure 1.1

Global Growth and Commodity Prices
Global growth declined in 2015, reflecting
slower growth in emerging markets and weaker
recovery in advanced economies, while
commodity prices remain subdued.

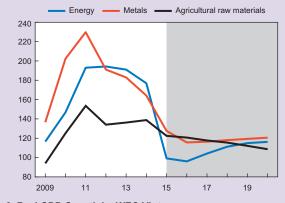
1. Real GDP Growth

(Percent; annual rate)

			Projections	
	2013	2014	2015	2016
World	3.3	3.4	3.1	3.6
Advanced economies	1.1	1.8	2.0	2.2
United States	1.5	2.4	2.6	2.8
Euro area	-0.2	0.9	1.5	1.7
Japan	1.6	-0.1	0.6	1.0
Emerging market and				
developing economies	5.0	4.6	4.0	4.5
China	7.7	7.3	6.8	6.3
Russia	1.3	0.6	-3.8	-0.6

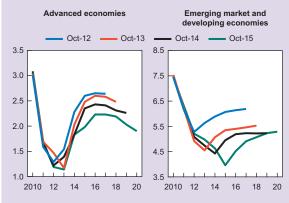
2. Global Commodity Prices

(Index, 2005 = 100)



3. Real GDP Growth by WEO Vintage

(Percent; annual rate)



Sources: IMF, World Economic Outlook database; and IMF staff projections.

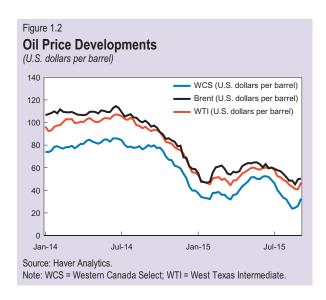
3.6 percent. Growth in advanced economies is envisaged to pick up modestly this year and next, led by a solid growth rebound in the United States, modest but firming recovery in the euro area, and a return to positive growth in Japan.

This rebound would be partly offset by lower growth in commodity exporters, such as Canada. In emerging markets, a growth pick-up in 2016 is also envisaged, but mainly reflecting a fading of adverse shocks. Specifically:

- In the *United States*, the recovery regained its footing, led by private consumption on the back of steady job creation and personal income growth. Going forward, stronger residential and business investment, as well as less fiscal drag, should support solid growth of about 23/4 percent in 2016 (see section below).
- In the *euro area*, moderate growth of about 1½ percent in 2015–16 is anticipated, given lower oil prices, relaxed financial conditions, and a shift to a broadly neutral fiscal stance.
- In *China*, growth is broadly in line with previous forecasts and expected to slow to 6½ percent in 2016. Meanwhile, a sharp contraction in *Russia* is expected in 2015, given a larger-than-expected GDP decline in the first half of the year, before output broadly stabilizes in 2016.
- With a deepening recession in Brazil, activity in *Latin America and the Caribbean* is projected to contract slightly at the regional level in 2015—marking the fifth consecutive year of slower growth. A modest recovery is projected for 2016, but with growth well below trend (Chapter 2).

Commodity and Financial Markets

Alongside weaker global growth, commodity prices have generally fallen and prospects remain soft—well below their 2011 peak. Oil prices resumed their decline after remaining broadly stable in 2015:Q2 (see Figure 1.2). This reflected buoyant supply (notably, strong production in OPEC



economies as well as the United States and Russia) and weakening demand given slower-than-expected global activity. Metal prices have fallen on concerns about global demand, especially the slowdown in China's investment and manufacturing activity, as well as higher supply (as new production capacity came on stream). A further decline in oil prices should provide some additional demand boost in net importers, but the demand response from lower oil prices, thus far, has been weaker than anticipated.

Meanwhile, market volatility has risen sharply and financial conditions have tightened for emerging markets, albeit to various degrees. Amid higher risk aversion and concerns about growth and financial vulnerabilities (notably, surrounding China after announcement of its new exchange rate policy), emerging market asset prices have come under pressure. This includes increasing dollar bond spreads and local currency bond yields, weaker stock prices, some retreat in capital flows, and exchange rate depreciation pressures.

This appears particularly true for commodity exporters, where weaker terms of trade and dampened growth prospects may be reinforcing the turn in market sentiment. Many economies are also at late stages of their credit cycles while growth outlooks have been marked down, leaving them more vulnerable to tighter external financing

conditions, including those associated with an eventual lift-off of U.S. interest rates.¹

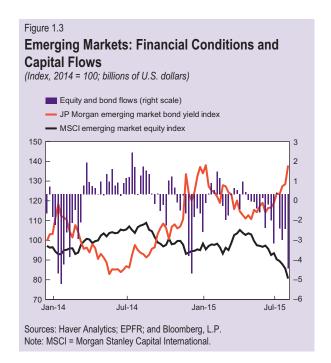
Financial conditions continue to remain accommodative in advanced economies, particularly safe havens, with low interest rates and compressed risk spreads. Stability risks have also moderated alongside improving macroeconomic conditions, particularly in Europe. Low rates for a protracted period, however, remain a concern where the recovery is more established, including the United States.

Looking beyond recent market turbulence, exchange rate movements over the past six months across major currencies have included modest real effective appreciation of the U.S. dollar, the Chinese renminbi, and the euro, and a depreciation of the Japanese yen. Over the past year, exchange rate movements across floating-rate currencies have been broadly consistent with changes in growth prospects and terms of trade, as part of global adjustment.

Risks and (Modest) Growth Prospects

Risks to global growth remain tilted to the downside. External conditions for many emerging markets are more challenging, including weaker commodity prices, alongside a weaker outlook for growth.² While slower growth and rebalancing in China is welcome, a possible "hard-landing" scenario remains a risk that could have sizable spillovers. Heightened market volatility can pose challenges in advanced economies, but a greater boost to their demand from declining commodity prices is an upside risk.

Beyond near-term risks, medium-term growth prospects remain subdued, after successive markdowns, as discussed in earlier reports (see Figure 1.1). Repeated setbacks to a sluggish



recovery in advanced economies and a protracted growth slowdown in emerging markets suggest that common underlying factors are at play. These include low productivity growth in the aftermath of the crisis; legacies of high public and private indebtedness; financial sector weakness and continued low investment; and demographic transitions.

Over the medium term, economic stagnation is a risk for many advanced economies, particularly if demand in emerging market economies also falters—including the possibility of much slower potential growth in China.

Policy Challenges

Raising both actual and potential output through demand support and structural reform continues to be a priority in many economies. In advanced economies, accommodative monetary policy remains appropriate, along with being watchful of possible stability risks, and scope remains to ease the fiscal stance in countries with fiscal space, especially through increased infrastructure investment.

Emerging market and developing economies generally have more limited policy space to support

¹ See October 2015 *Global Financial Stability Report.*² See October 2015 *World Economic Outlook* (Chapter 2) for effects of lower commodity prices on actual and potential growth.

demand, but they should use it to the extent possible. The policy agenda varies, given large differences in growth, sensitivity to commodity price shocks, and external vulnerabilities. Structural reforms to raise productivity and remove bottlenecks to production are urgently needed in many economies.

In Latin America, many of the same issues are central against the backdrop of an extended slowdown. Many of the region's economies tend to be rather sensitive to commodity prices and face structural weaknesses, as well as relatively limited trade integration and financial depth (see Chapters 4 and 5). With constraints on near-term policy stimulus, structural reform will thus need to shoulder the burden for boosting economic growth and prosperity.

The United States: Recovery Regains Its Footing

The U.S. economy appears to have regained its footing in the second quarter of this year, growing by 3³/₄ percent (seasonally adjusted annual rate—SAAR). The strong rebound followed unexpectedly weak first quarter growth (0.6 percent SAAR), hurt by temporary factors such as bad weather and a West Coast port strike that disrupted exports (see Figure 1.4).

Much of the economy's resilience, notably in private consumption, can be attributed to steady job creation and personal income growth. Gains in payrolls this year averaged more than 200,000 per month—a healthy level by historical standards. The unemployment rate has fallen to 5.1 percent and real disposable personal income is growing by about 3 percent year over year. Nevertheless, wage growth has not picked up much. Long-term unemployment and part-time work remain elevated and a sizable number of workers who left the labor market have not yet found employment.

Lower oil prices have been a mixed blessing for the economy. The decline in oil prices has added about 1 percent of GDP to households' purchasing power since mid-2014. Earlier in the year, this windfall was largely saved. Since then, consumers have boosted

Figure 1.4 **United States Recovery** Led by resilient consumption and job gains, the U.S. economic recovery regained its footing, and housing market activity tended to improve. 1. United States: Contribution to GDP Growth (Percentage change from previous quarter, seasonally adjusted annual rate) Residential investment Nonresidential investment Change in private inventories Net exports Personal consumption expenditure Government consumption and 6 Real GDP growth 2013:Q1 Q2 Q4 2014:Q1 Q2 Q4 2015:Q1 Q2 2. United States: Consumption and Payrolls 700 500 300 100 -100 -300-3 -500 Changes in payrolls (thousands) -700 Consumption (percent change, year over year, right scale) 2009 3. United States: Housing Activity (Millions of units, seasonally adjusted annual rate) Housing starts 5.6 1.2 Total existing home sales (right scale) 1.1 1.0 Sources: Haver Analytics; U.S. Bureau of Economic Analysis; U.S. Bureau of

Labor Statistics; and U.S. Census Bureau.

spending, as the saving rate fell below 5 percent—where it was prior to the oil price decline. This positive demand impetus has been offset, though, by a sharp decline in oil-related investment as crude prices fell below breakeven thresholds for many U.S. fields. Indicators of investment in the energy sector have bottomed out, however, signalling that this drag to growth is coming to an end.

Exports and non-oil business investment growth have been less buoyant than expected. Soft overseas demand and a strong dollar have raised competition in the tradable sector, taking its toll on business investment. But structural headwinds may also be weighing on industry and manufacturing: demand is shifting to labor-intensive services as the U.S. population ages; labor productivity growth has declined, possibly as a result of reduced innovation; and the output gap could be larger than estimated.

While housing market indicators remain mixed, residential investment in the first half (at an average annualized rate of more than 8 percent per quarter) was better than expected.

Solid Growth Outlook

Growth in 2015 is projected at about 2½ percent and expected to pick up to about 2¾ percent in 2016. Consumption will likely continue to be a backbone of the recovery. Drivers of robust household spending include a further strengthening of the labor market, low energy prices, and tame core inflation, boosting real disposable incomes. Steady income growth will further support a broadening of the recovery:

Housing. As the cohort of millenials increasingly gains a stronger foothold in the labor market, household formation and residential investment are expected to rise. Past recoveries point to the possibility of a rapid increase in housing starts; and, accordingly, residential investment is expected to boost growth in 2016. Still, housing market conditions are uncertain and interest rates are expected to rise. This together with uncertainty about the rate of household formation and some recent weakness in home prices pose risks to a solid housing recovery.

Business investment. The combination of solid consumer demand, an aging capital stock, and substantial corporate cash holdings should support a cyclical recovery in investment. Encouragingly, forward-looking indicators (notably, factory orders of core capital goods) have started recovering after several months of weakness. The strong dollar will likely continue and may postpone some investments in the tradable sector, but these effects should wane over time. The exception is the energy sector where low energy prices are eroding profitability and may suppress investment for some time.

Finally, *fiscal consolidation* will continue this year, albeit at a slower pace and generating less drag on growth than last year. Taken all together, strengthening of domestic demand is expected to continue and underlying growth will rise to about 3 percent in the short term. Over the medium term, an aging population and weaker innovation and productivity growth are expected to lower potential growth to about 2 percent.³

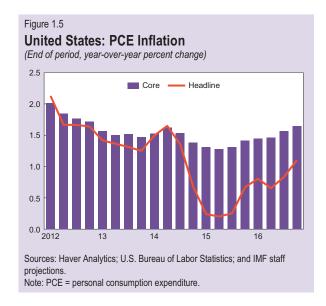
Lift-off of U.S. Interest Rates

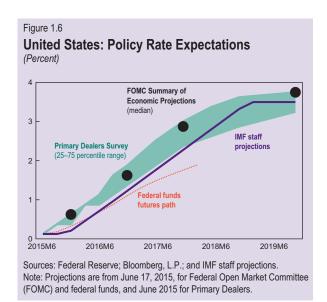
Against this setting of renewed momentum in the recovery, the timing and path of U.S. monetary policy normalization has attracted considerable attention, including potential spillovers to the region (see Chapter 3). The Federal Open Market Committee's policy decisions should remain data dependent—with the first rate increase awaiting firmer signs of inflation rising steadily toward the central bank's inflation objective, and with continued strength in the labor market.

At present, a broad range of indicators suggest a notable improvement in the labor market, but there is little evidence of meaningful wage and price pressures. Leaving aside the timing of lift-off, the data suggest that the pace of subsequent rate increases should be gradual.

Inflation remains subdued. Headline personal consumption expenditure (PCE) inflation has been

³ See Alichi (2015).





temporarily dragged down by lower oil prices. Core PCE inflation edged down slightly to 1.2 percent year over year in July with the effects of rising demand more than offset by dollar appreciation, the falling global prices of tradable goods, and residual pass-through from cheaper energy.

Underlying inflation is projected to remain tame. Headline inflation should rebound after the summer as the effects from dollar appreciation and lower energy prices dissipate. But given the still sizable employment gap, wage increases are likely to remain subdued. Inflation pressures are also dampened by the scope for firms to absorb cost increases into their (currently healthy) profit margins. Core PCE inflation is therefore projected to rise only gradually with the closing output gap, reaching the Federal Reserve's 2 percent medium-term objective by end-2017 (see Figure 1.5).

Amid limited near-term inflation pressures, long-term interest rates have remained at low levels and continue to support monetary accommodation and domestic demand. The compressed term premium reflects weaker external conditions, excess demand for safe assets, and expectations of future dollar strength—and it may take time for these effects to recede. Thus, markets expect a very gradual interest rate normalization path (see Figure 1.6).

Weighing these considerations, the Federal Reserve has explained that it will be appropriate to raise the target range for the policy rate when it has seen further improvement in the labor market and is reasonably confident that inflation will move back to its 2 percent objective over the medium term. Monetary policy can thus remain accommodative for some time and rate increases should likely be gradual given the underlying path of neutral rates (see Box 1.1), subdued inflation, and some remaining slack in labor markets.

Risks to the U.S. Recovery

Although developments point to renewed momentum in the U.S. recovery, there are several downside risks:

- The U.S. dollar could continue to appreciate due to cyclical divergences between the U.S. economy and those of key trading partners. A sharp rise of the dollar, in particular, could weaken profitability and production in the domestic tradable sector and also widen the current account deficit.
- A prolonged period of low interest rates and search for yield points to some emerging financial vulnerabilities, including rapid growth in assets of the nonbank sector, signs of

stretched valuations across a range of asset markets, and life insurance companies that have taken on greater market risk.

- Long-term interest rates could rise abruptly and harm the recovery. Compressed term premia, partly related to global developments, could reverse if markets were to return to a "risk-on" mode. Lift-off by the Federal Reserve from the zero interest bound could be another trigger, although previous monetary tightening cycles have typically been associated with declining term premia.
- On the fiscal side, political brinkmanship over the debt limit or the 2016 budget could raise the risk premium on sovereign debt. The tightening of financial conditions would likely be associated with greater volatility of yields and could spread to other asset classes. Sharply rising mortgage rates can be a particular issue for first-time home buyers and delay the housing recovery further.
- Longer-term growth challenges could come
 to the fore. Labor productivity has slumped
 after the global financial crisis and could fail to
 recover. There is also the potential that business
 investment remains flat. Depending on which of
 the aforementioned reasons (for example, demand
 shift towards services; lack of innovation) is at
 play, weakness in investment could continue and
 feed into slower job gains and income growth.

U.S. Policy Priorities

After a long period of very low interest rates, financial sector resilience needs to be further strengthened. Despite progress on many fronts—for example, household balance sheets and banks' capital positions have strengthened—pockets of vulnerabilities have emerged, especially in the nonbank financial sector. Life insurers have taken on risk and their capital positions are susceptible to an interest rate shock; "run" and "redemption" risks have increased in the nonbank sector; and deeply interconnected wholesale funding chains pose vulnerabilities.

Addressing these challenges requires completing the regulatory reforms that started with the Dodd Frank Act. Among other issues, systemic risk oversight can be strengthened, data blind spots addressed, supervision of insurers and asset managers improved, and risk management standards upgraded. Detailed recommendations have been made in the 2015 U.S. Financial Sector Assessment Program (FSAP) report.

Over the medium term, U.S. potential growth is estimated to be about 2 percent, weighed down by a slowdown in labor force and productivity growth. The underlying reasons for the decline in U.S. total factor productivity growth are not well understood, but it is unlikely that the dynamics can change quickly.

Addressing these growth challenges will require implementing an ambitious agenda of supplyside policies in a fractious political environment. Policies should be targeted toward raising labor force participation. Any reform package should include measures to incentivize work by expanding the earned income tax credit system and providing support for childcare.

Productivity-enhancing innovation could be induced more effectively through reforms of the business tax system. In tandem, skill-building could be fostered through better training programs at the state level and through partnerships with industry and higher education institutions. Finally, key infrastructure investment can be made in the United States at relatively modest near-term cost but with long-term growth benefit.

Finally, fiscal sustainability concerns need to be addressed, as the public debt-to-GDP ratio remains on an unsustainable trajectory. A credible plan should include the following:

Tax reform. A reform of the U.S. tax code
is long overdue. Complexity and loopholes
have increased over the years, undermining
revenues and damaging productivity. The
IMF's longstanding advice has been that
changes should focus on simplifying the system
by capping or eliminating personal income
tax deductions; removing tax preferences,

exclusions, and deductions from the business tax; and changing the tax treatment for multinationals to limit base erosion and profit shifting. Also, more revenues should be raised through a broad-based carbon tax, a higher federal gas tax, and by introducing a federal-level value-added tax (VAT).

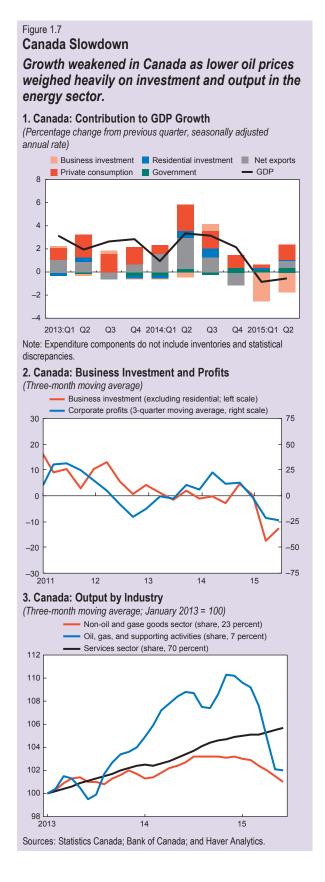
- Pension reform. The prospective depletion of the social security trust fund needs to be countered through a gradual increase in the retirement age, greater progressivity of benefits, an increase in the maximum taxable earnings for social security contributions, and by indexing benefit and contribution provisions to a chained Consumer Price Index.
- Healthcare. Cost pressures have declined but more efforts are needed. Legislation could usefully focus on ensuring better coordination of services for patients with chronic conditions, taking steps to contain overuse of expensive procedures and technologies, including through a higher degree of cost sharing with beneficiaries, and eliminating tax breaks for more generous employer-sponsored health plans.

A plan to address the fiscal sustainability issues mentioned above would provide near-term fiscal space to finance supply-side measures that support growth, job creation, and productivity.

Canada: Lower Oil Prices Weigh Heavily on the Economy

After a solid expansion in 2014, Canada's economy has lost momentum in the wake of the oil price shock. In the first half of 2015, economic activity contracted, for the first time since the 2008–09 recession, at a ³/₄ percent annual rate (see Figure 1.7).

Weaker investment has been the primary driver behind the slowdown. Specifically, nonresidential business investment has been a major drag on demand, declining 8 percent since 2014:Q4. Alongside falling oil prices and deteriorating terms



of trade, weaker investment reflects a sharp drop in corporate profitability—particularly in the energy sector (although reported profits in other sectors have been more encouraging recently).

From the supply side, output in the oil and gas sector has led the downturn, falling by nearly 10 percent since oil prices began declining in mid-2014, trimming an estimated ³/₄ percentage point off GDP growth. However, the services sector (accounting for 70 percent of total output) has held up relatively well.

Exports also disappointed in the first half of the year. As expected, commodity (oil, gas, and metal) exports have declined in value terms in tandem with the drop in their prices. Meanwhile, a hoped for increase in non-energy goods exports, alongside a more competitive Canadian dollar and continued U.S. recovery, did not materialize. As a result, the trade deficit ballooned to a new high in early 2015. Recent data for nonenergy exports, however, have been more encouraging.

Despite the slowdown in economic activity, the unemployment rate remained relatively low (at about 7 percent nationally). Payroll cuts have so far been largely confined to Alberta, where the unemployment rate edged higher to 6 percent (about 1½ percentage points above last year's level). Elsewhere, the pace of employment gains has actually risen. There has also been a notable change in employment composition since late 2014. A greater number of full-time workers have been added to the payrolls compared with part-time workers, which had been the main driver of job gains over the past two years. This has led to strong growth in real disposable income this year.

With favorable labor market conditions, household spending has remained solid. Private consumption slowed in the first quarter, affected by severe winter weather, but rebounded strongly in the second quarter.

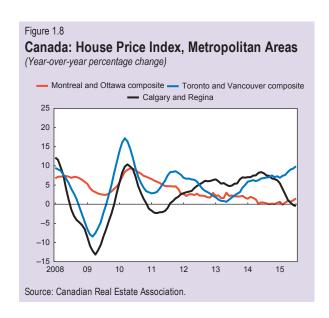
Headline inflation pressures have been muted. CPI inflation has been about 1–1½ percent—well below the 2 percent midpoint of the central bank's

target range—driven by subdued energy prices. Core inflation (CPI excluding energy, food, and other volatile components) has picked up some, however, driven by pass-through effects from a weaker Canadian dollar, and hovers slightly above the central bank's reference level.

Housing Sector Vulnerabilities Remain Elevated

Housing markets remain generally buoyant, though trends are now diverging across regions. House prices continue to surge in the major metropolitan areas of Vancouver and Toronto, rising by about 10 percent from a year ago (see Figure 1.8). This reflects strong demand for premium single-family homes as well as land supply constraints. In contrast, house prices are cooling in oil-rich regions and rural areas where growth in prices has slowed to about zero and housing starts have fallen sharply (for example, Prairie region).

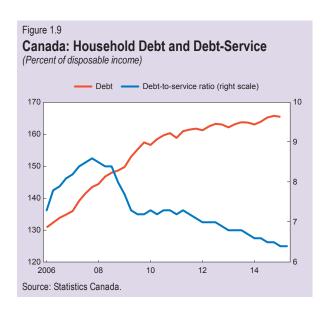
Mortgage lending has slowed from its brisk pace several years ago, but is still growing at about 5 percent annually. Canadian banks' exposure to mortgages and consumer loans secured by real estate represent their single largest asset class (about 53 percent of total loans).



In terms of composition, more than half of new mortgages today are uninsured, partly reflecting past regulatory efforts to tighten standards on insured mortgages. Although the uninsured mortgages have a relatively low loan to value and, in principle, are safer, the Bank of Canada's Financial System Review indicated that some down payments may be borrowed through "co-lending arrangements" with secondary lenders, and a small share of the new debt may be subprime and originated by unregulated lenders.

Against this backdrop, household indebtedness has grown to about 165 percent of gross disposable income, a historically high level in Canada. Interest servicing costs, however, remain at historic lows, mitigating the effects of higher house prices on affordability (see Figure 1.9). But this also implies that households could be vulnerable to a faster-than-expected increase in interest rates. Were a sharp house price correction to materialize, it would have substantial wealth effects on private consumption, dampen residential investment, and, given extensive macro-financial linkages, impair banks' asset quality.

However, the impact on banks of a severe housing downturn would be mitigated by the government guarantee on insured mortgages, which covers three-fifths of outstanding mortgage credit. Banks are also profitable, well capitalized, and well regulated.



Growth Rebound Likely, but with Downside Risks

Growth is projected to recover moderately in the two remaining quarters resulting in an annual growth rate of 1 percent in 2015. The projection hinges on (1) the strengthening U.S. recovery, combined with a more competitive Canadian dollar, boosting non-energy goods exports; (2) private consumption growth remaining solid with relatively robust labor markets and steady growth in household income; and (3) financial conditions remaining accommodative.

Around this baseline, the balance of risks is tilted to the downside:

- Uncertainty in oil prices continues to pose the most important risk to the economy. Lower oil prices have already hit unconventional oil extraction activities particularly hard because their long-term break-even costs are high (C\$50–C\$110 per barrel). Therefore, if oil prices stay at current low levels for an extended period, or if oil prices fall further, energy companies may curtail capital spending more than expected.
- Market sentiment may turn more bearish, as many analysts now view lower oil prices as hurting not only Canadian oil companies but also businesses that export oil-related machinery and services. Oil companies' equity prices have already fallen substantially from their peak.
- Externally, the main downside risks pertain to a slower-than-anticipated recovery in the United States, as their business cycles are closely linked (about 75 percent of Canada's exports are directed to the United States).⁴ A slowdown in emerging Asia, notably China (to which about 4 percent of Canada's exports are directed), is another source of concern, including through commodity markets.

⁴ A lift-off in the U.S. policy rate may generate some volatility in financial markets, but adverse spillover effects for Canada are likely to be offset by higher demand for its exports.

• Domestic risks include a sharp correction in the housing market, with attendant effects on household balance sheets and bank asset quality. A weaker economy, high household debt, and market overvaluation pose the risk of a boombust cycle in the housing market. Given extensive government-backed mortgage insurance, the impact of a severe housing downturn on fiscal positions could be considerable.

Policy Priorities in Canada

With lower oil prices, slower growth, and some financial vulnerability, the policy challenge is to contend with supporting near-term growth, while preventing a further build-up of sectoral imbalances, and vigorously pursuing structural reforms to enhance long-term growth potential.

In the near term, fiscal stabilizers should be allowed to operate to cushion the effects of the slowdown. Needed fiscal consolidation at the provincial level should be measured. The federal government can maintain a neutral stance for now, but has room to maneuver if downside risks to growth materialize. In July, the Bank of Canada cut

its policy rate for the second time in 2015, by 25 basis points to 0.5 percent, which should support activity in the wake of a large terms-of-trade shock.

A prolonged period of low interest rates, however, can lead to higher household indebtedness and—with housing highly interconnected to the rest of the economy—this may exacerbate financial risks. Over the past several years, the authorities have introduced multiple measures to reduce housing sector vulnerabilities—most recently, raising the insurance premium and guarantee fees for mortgage-backed securities. If housing risks continue to increase, additional macroprudential policy measures should be considered to safeguard financial stability.

Strengthening structural policies will be important to enhance Canada's long-term potential. The authorities' efforts on this front have been extensive and should continue, including making R&D investment to promote innovation, reducing restrictions on public-private partnerships, strengthening job matching and competition, diversifying Canada's export markets, and expanding the country's energy infrastructure.

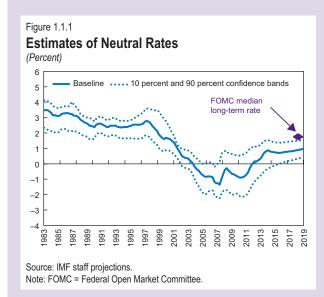
Box 1.1

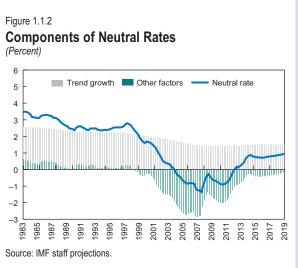
How Accommodative Is U.S. Monetary Policy?

The issue of interest rate lift-off and the path of U.S. monetary normalization depend on an assessment of policy accommodation. Real interest rates in the United States have been declining for some time but what matters to gauge the policy stance is the deviation from the neutral rate of interest—that is, the rate consistent with the economy achieving full employment and price stability over the medium term. In fact, even though the real federal funds rate has been in negative territory for the last seven years, this alone cannot determine whether or how forcefully the economy has been pushed toward eventual overheating pressures and rising inflation, or vice versa. To assess how accommodative monetary policy is, one needs to look at the difference between actual and neutral interest rates—that is, the "interest rate gap."

Pescatori and Turunen (2015) suggest that the real neutral rate has declined over time and was likely negative during the crisis (see Figure 1.1.1). The trend decline in the neutral real rate seems to be partly driven by a gradual decline in U.S. potential growth in the 2000s (see Figure 1.1.2). Other relevant factors include a significant increase in demand for U.S. safe assets—partly reflecting substantial increases in emerging market current account surpluses during this period—and increased risk aversion during the crisis.¹ Moreover, taking into account in the estimation process the role of unconventional monetary policies undertaken in the aftermath of the financial crisis lowers the estimates of the neutral rate further.²

After bottoming out shortly after the crisis began, the neutral rate appears to have been trending upward, and estimates suggest it likely turned positive in 2014. Looking ahead, the projected increase in neutral rates is driven mostly by reductions in emerging market current account surpluses and diminishing headwinds from the global





Note: This box was prepared by Andrea Pescatori.

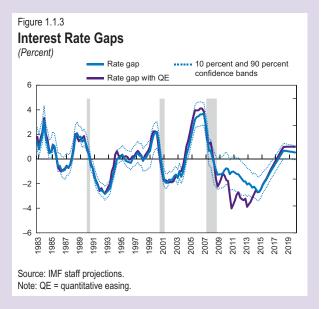
¹ See Pescatori and Turunen (2015) for a more detailed decomposition of U.S. neutral rates and for a discussion of the estimation methodology.

² To take into account the effect of unconventional monetary policies in the estimation of the neutral rate, it is possible to replace the federal funds rate with a *shadow* policy rate as an alternative measure that is not bounded by zero. To construct this, Pescatori and Turunen (2015) takes a simple average of three different shadow rates available in the literature (see Krippner 2013, Lombardi and Zhu 2014, and Wu and Xia 2014).

Box 1.1 (continued)

financial crisis—including a return to more normal degrees of risk appetite. A small rebound in trend growth also helps raise the neutral rate of interest. Hence, the analysis suggests that the neutral rate is likely to increase only gradually and stay well below the Federal Open Market Committee participants' median forecast for the long-term real policy rate (at about 1.75 percent).

The interest rate gap suggests that monetary policy has been accommodative since the crisis started (see Figure 1.1.3). Additional accommodation, on the order of 1 to 3 percentage points, has likely been provided by unconventional monetary policies though their effects have been waning.³ Overall, given the recent increase in the neutral rate, monetary policy is still providing considerable economic stimulus. Looking ahead, the IMF staff expects that the Federal



Reserve will raise policy rates gradually, implying the rate gap will remain negative for several years as the (real) neutral rate slowly increases above 1 percent. This path suggests that monetary policy is likely to remain quite accommodative for some time, which would support the economic recovery.

³ Monetary accommodation, including unconventional monetary policies, is calculated as the difference between the shadow policy rate and the corresponding neutral rate estimated using shadow policy rates. The higher gap or amount of accommodation reflects a substantially negative shadow policy rate in the aftermath of the crisis (about –3 percent), which is only partially offset by a lower estimate of the neutral rate over this period.