February 27, 2018

Budget trains spotlight on equality… deficit profile little changed

Highlights

- The Liberal government's third budget may have been modest in terms of net new investments, but at this stage of the cycle, there's little need for marginal stimulus. So the focus turned to key Liberal priorities, such as gender equality and innovation (alongside expected clarity on small business taxation).
- As with last year's budget, there's a certain "wait and see" feel here, given lingering geopolitical uncertainties (most notably NAFTA renegotiation). The federal government opted against corporate tax reform for the time being despite eroding competitiveness in the wake of Trump's tax cuts. Ottawa retains the right and ability to take proper action in due course.
- For the outgoing fiscal year, Ottawa now expects to run a $19.4 billion shortfall, equivalent to 0.9% of GDP. The budget puts the coming fiscal year's deficit at $18.1 billion or 0.8% of GDP. That's to be followed by a $17.5 billion shortfall in 2019-20 (0.7% of GDP), with the deficit easing further in the final three years of the fiscal plan, falling to $12.3 billion or just 0.5% of GDP come 2022-23. No date has been specified for deficit elimination.
- New initiatives in today's budget are worth $6.3 billion in 2017-18 (notably a new pension for life framework support for veterans) and $5.4 billion in 2018-19 (spread more broadly across four key streams), and a more modest $2-3 billion/year further out.
- The budget acknowledged that infrastructure money is flowing out the door slower than previously anticipated. Nearly $5 billion of allocated infrastructure money is being transferred from 2017-18 and 2018-19 to later years, which better aligns with when lower levels of government are likely to access this funding.
- The budget assumes a 2.2% advance in real GDP or 4.0% growth in nominal terms in 2018. Further out, real GDP is expected to range from 1.6% to 1.8% from 2019 through 2022.
- Federal revenues are expected to grow at an average annual rate of 3.8% through 2022-23, with the revenue share of GDP holding fairly steady at 14.5%. Program expenses, meanwhile, are due to grow at an average annual clip of 2.8% over that same five-year period, easing somewhat as a share of GDP (from 14.2% in the outgoing year to 13.6% by 2022-23).
- All in all, 2018-19's net financial requirement of $35 billion (~1.5% of GDP) looks like an entirely manageable level for a sovereign with such a sterling credit rating and demonstrated traction with international investors. (Notwithstanding some gradual progress on the deficit, net funding needs hold slightly above $30 billion/year through 2022-23.)
- The government expects to have $125 billion of outstanding T-bills by March 2018, but by the end of 2018-19, plans to boost the bill stock to $138 billion—a level deemed sufficient to ensure a liquid and well-functioning market.
- The 2018-19 gross bond program amounts to $113 billion (excluding switch operations and inflation-related adjustments), a non-trivial reduction relative to the outgoing year's $136 billion in supply. After controlling for maturities and buybacks, the stock of outstanding Canadas is due to grow roughly $20 billion in the coming fiscal year, again a notably slower pace of net supply than in 2017-18.

Third time's the charm?

The first budget from Justin Trudeau's federal Liberal government, set down in 2016, laid out a new, progressive path forward, eschewing budget surpluses in favour of fiscal stimulus aimed at healing a wounded economy. Last year's second Liberal budget, set against an improving economic backdrop, was more an exercise in fiscal fine-tuning, in some cases turning attention to longer-term issues while retaining a focus on inclusive growth. That brings us to today's third Liberal Budget.

As expected, the budget put the focus on certain key Liberal priorities that carry less of a direct price tag, notably gender equality. Saying that, positive economic/fiscal adjustments and some re-jigging of earlier commitments created room for targeted new investments. The end result: today's fresh budget balance trajectory looks a fair bit better than last year's budget plan, but is really little changed relative to an October update.

Budgetary red ink recedes each year of the fiscal plan, although there's still no definitive timeline for deficit elimination that some have advocated. The preferred fiscal anchor—the debt-to-GDP ratio—also continues to step down from what is already a reasonably enviable level and the interest bite looks to remain quite manageable (even as interest rates move higher).

There may well be a certain "placeholder" feel to this budget—there was a similar vibe last year, if you'll recall—with no real action to bolster business competitiveness. Still, the government retains the right and ability to take action should some of the worst economic risks materialize (e.g., a bad NAFTA outcome). It likewise stands to reason that the government may be keeping some powder dry for next year's fiscal blueprint; it's that fourth Liberal budget, after all, that they will carry into a 2019 federal general election.

Reaping fiscal benefits from gold medal economic performance

Canada threw down something of a gold medal performance in 2017, as real GDP vaulted over expectations; real GDP growth of 3.0% stood nearly a percentage point above the original consensus view, and the upgrade to 2017 nominal growth (vs plan) was just as impressive (+0.9%-pts to a fairly solid 5.2%).

Current economic thinking (as judged by the private sector consensus) points to another year of above-potential growth in 2018, albeit slower than last year's blowout performance. The budget assumes a 2.2% advance in real GDP or 4.0% growth in nominal terms. Our own call is for an even brisker advance, in and around 2.6% real growth. Further out, real GDP is expected to range from 1.6% to 1.8% from 2019 through 2022 (i.e., much closer to potential).

If you've been watching the Canadian economy, you're no doubt aware of the veritable avalanche of net new jobs in Canada… more than 500K in the last two years, driving the unemployment rate down to roughly 40-year lows. The jobs market is expected to remain tight, with the unemployment rate averaging ~6% over the forecast horizon (i.e., at or through what would traditionally be considered Canadian NAIRU). To us, there's little evidence of available slack in the labour market and thus a legitimate risk of mounting wage and inflation pressure. (The seeds have been sown and are already sprouting if you care to look.) Nonetheless, the average private sector forecast dutifully puts average all-items inflation at or slightly below 2% per year.

All in all, it's fair to say that the 2018 federal budget basks in the (after) glow of a fairly robust economic performance. Still, non-trivial downside risks remain, NAFTA uncertainty perhaps chief among them. The budget also points to a normalization of US monetary policy, and a prospective tightening in financial conditions. Elevated household indebtedness, that perpetual boogeyman, also makes the list, with consumption vulnerable to sharp, adverse changes in income, house prices or interest rate dynamics. For many, Canada's eroding relative tax competitiveness in the wake of Trump's tax cuts is another key risk, making vulnerable the future path of business investment.

For the federal government, there's a bit of a paradox here: today's strong economy suggests little need for loose(r) fiscal policy, but potent risks (protectionist sentiment, eroding competiveness) must be successfully navigated if the good times are to continue. Ottawa's response: at the risk of stoking what is already a somewhat overheated economy, the budget makes some targeted net new investments, but at the same time allows a good portion of a positive economic upgrade to flow through to the bottom line, implying room to respond down the road if need be.

Crunching the fiscal numbers

Where does this leave the federal budget balance? For the outgoing fiscal year, Ottawa now expects to run a $19.4 billion shortfall, equivalent to 0.9% of GDP. If you've been keeping score at home, that's slightly larger than the $18.4 billion underlying deficit flagged in October but nicely improved vs. the $25.5 billion in red ink (before an adjustment for risk) originally projected in Budget 2017.

The improved fiscal tone (vs the prior year's budget) carries over to 2018-19 and beyond. The budget puts the coming fiscal year's deficit at $18.1 billion or 0.8% of GDP. That's to be followed by a $17.5 billion shortfall in 2019-20 (0.8% of GDP), with the deficit easing further in the final three years of the fiscal plan, falling to $12.3 billion or just 0.5% of GDP come 2022-23. If you're looking for a definitive date for deficit elimination, you won't find one. Still, it would be hard to term the federal budgetary shortfall as "outsized", relative to our nation's history or the fiscal posture being pursued by many other large, advanced economies.

Lining the fresh budget figures up with earlier guidance, you'll find the cumulative five-year balance (covering 2017-18 to 2021-22) has improved a nifty $34 billion vs Budget 2017 (a positive adjustment of almost $7 billion/year). Granted, there's not much change vs the Fall Economic Statement (FES) released in October 2017, given that positive fiscal adjustments and some re-profiled/delayed infrastructure spending largely compensate for new measures. All told, new initiatives in today's budget are worth $6.3 billion in 2017-18 (notably a new pension for life framework support for veterans) and $5.4 billion in 2018-19 (spread more broadly across four key streams), and a more modest $2-3 billion/year further out. We'll explore new initiatives in greater detail shortly, but first a word on the overriding fiscal assumptions and relative prudence embedded in the fiscal plan.

Federal revenues are expected to grow at an average annual rate of 3.8% through 2022-23, with the revenue share of GDP holding fairly steady at 14.5%. Program expenses, meanwhile, are due to grow at an average annual clip of 2.8% over that same five-year period, easing somewhat as a share of GDP (from 14.2% in the outgoing year to 13.6% by 2022-23) and likely little changed in real, per capita terms.

Public debt charges are receiving ever-greater attention, not because the federal debt burden is exploding higher (we'll explore debt metrics in greater detail further on) but due to greater conviction around the future path of interest rates. Guided by a survey conducted in December, the budget assumes 10-year Canada yields will average 2.3% in calendar 2018—a forecast that now looks too low, given 10s currently trade around 2.25%. Ten-year interest rates are expected to rise further in 2019 (to 2.8%), breaching 3% in 2020 and grinding higher still through 2022.

So while it's true that interest charges are set to outgrow program outlays (6.2% vs 2.8%), Ottawa's interest bill looks to remain eminently manageable even as rates drift higher. To wit, the share of revenue consumed by public debt charges, currently 7.9%, should be no higher than 9% in five years' time. Compare that with 35% interest bite taken out of the federal budget back in the mid-1990s.

As for prudence, the budget sets aside an annual $3 billion "adjustment for risk", sufficient to absorb weaker growth and/or higher interest rates. Official sensitivities suggest a 1%-pt miss in real GDP costs Ottawa $4.8 billion in year 1, while a similar 1%-pt decline in the GDP deflator initially costs $2.1 billion. As for the sensitivity to higher rates, a 100 bp parallel shift in the Canada yield curve adds $0.6 billion to the deficit in year 1, growing to $2.8 billion in year 5 (as more and more debt is rolled over at the higher interest rate). Warning: these sensitivities assume all else is equal and should be treated with a degree of caution. You might reasonably ask what happens to prudence if it's not needed. While not explicitly stated, it's worth reiterating that a good portion of last year's positive economic upside surprise got booked in the form of a smaller-than-planned deficit.

[A final note on prudence: The government's approach has evolved over the years, but this is the second budget in a row where insurance was explicitly/directly built into the fiscal framework via a dedicated line item. To us, this is a cleaner and more transparent approach, relative to a less-direct method of applying a downward adjustment to the level of nominal GDP.]

New measures: Priority actions across four main streams

Positive economic and fiscal adjustments since the fall have created room for near-term investments, so too has a re-profiling of earlier committed infrastructure money. So Ottawa's new investments in this budget, worth more than $21 billion over six years don't really move the dial on the budget deficit relative to October's FES.

These new investments, which are primarily being captured in the outgoing fiscal year ($6.3 billion) and the coming 2018-19 fiscal year ($5.4 billion) are being made in four broad areas. And note that in all cases, budget decisions have been subjected to gender-based analysis/screening. A focus on gender equity informs much of what Ottawa does these days, making Canada a decided leader on the world stage. The government is clearly focused on promoting/driving equal pay for equal work, regardless of your sex, and is keen to spur greater female participation in the labour market. "Historic" pay equity legislation for federally regulated sectors/employees is coming. These are laudable objectives, making gender equality an overriding theme of today's fiscal blueprint.

Growth: $950 million net fiscal savings over six years ($253 million net savings in 2018-19)

Included here is the newly named Canada Workers Benefit (formerly the Working Income Tax Benefit) that is being both enriched and broadened (in terms of eligibility). Note that funding had been allocated in the fall, reducing the net cost. Extra parental leave benefits likewise have a modest fiscal price tag, as enhancements are expected to be largely offset by enhanced EI revenue. On EI, the program is being made "more responsive and effective" by making permanent a pilot project that allowed claimants to keep benefits while working and by further assisting seasonal workers.

Having entered into the Trans-Pacific Partnership, tariff revenue will be foregone. Although this is a cost the government is willing to bear in order to secure preferential access to new, large and growing export markets. Further on trade, the budget reiterates Canada's commitment to reaching a "good deal" as part of NAFTA renegotiation. Given an ongoing softwood lumber dispute with the US, some $190 million over five years has been earmarked to support the industry and to litigate via established WTO and NAFTA dispute resolution mechanisms.

Also included under this banner are much-anticipated changes to small business taxes, specifically the treatment of passive investment income. The budget makes a number of changes here, notably reducing/limiting access to the small business tax rate as passive investment income grows. In other words, the more passive investment income a corporation has, the less its business income will qualify for the small business tax rate. At $150,000 of passive investment income, eligibility for the small business tax rate would be fully eliminated. Small businesses with passive investment income up to $50,000 will see no change in tax treatment. (As previously announced, the small business tax rate is being lowered from 10.5% to 9% by 2019.) The government sees a number of advantages to this approach, relative to the earlier proposed changes that sparked something of a backlash last year. Based on very preliminary feedback, the small business community would appear to agree.

Additionally, the budget limits access to refundable taxes related to dividend income for larger private corporations. The changes take effect for the 2019 tax year. Together with earlier announced changes to income sprinkling, small business measures will bring in some $230 million in 2018-19, growing to more than $900 million/year by 2022-23. The budget continues a crusade against tax evasion and/or tax avoidance. Of note, the budget takes another crack at dividend rental arrangements (a big story back in Budget 2015), clarifying eligibility for exceptions to synthetic equity arrangement rules (effective immediately) and broadening applicability of tax rules and clarifying dividend deductibility related to securities lending arrangements. The budget also moves to limit tax losses on share repurchase transactions.

What you won't find: a reduction in the general corporate income tax rate or anything resembling Trump's US tax reductions. Nor are there tax incentives to directly spur business investment, such as accelerated depreciation.

Progress: $6.4 billion net fiscal impact over six years ($898 million in 2018-19)

The focus here is innovation, including extra support for Canada's Granting Councils (which in turn support scientists in a range of fields), research support/equipment and to harness big data. The National Research Council and federal laboratories likewise got a bump up, while funding for the Industrial Research Assistance Program (IRAP) will support business research. Regional and northern development agencies also got a boost, while investments are being made in small craft harbours. And consistent with the overriding theme of gender equality, there's a new female entrepreneurship strategy. Among other things, a mineral exploration tax credit for junior companies was extended another year (to March 31, 2019).

Reconciliation: $4.8 billion net fiscal impact over six years ($1.4 billion in 2018-19)

A core plank of the Liberal agenda, reconciliation and support for Indigenous Peoples once again featured in the budget. There were a number of specific initiatives here, focused on clean water, housing, skills/training, health care and overall quality of life for Indigenous Peoples.

Of note, the budget provides $50 million over five years (and $11 million/year in ongoing support) to bolster the First Nations Management Board, the First Nations Finance Authority (FNFA) and the First Nations Tax Commission. An additional $189 million in 2018-19 has been provided to implement fiscal policy reforms with self-governing Indigenous governments.

Advancement: $10.3 billion net fiscal impact over six years ($1.8 billion in 2018-19)

The largest of the four main investment streams, investments here include $4.2 billion in the outgoing fiscal year (2017-18), which primarily relates to a new pension for life plan for Canada's veterans.

Starting in 2018-19, new funding covers everything from environmental protection, international support programs for women, Canadian media content, support for official languages, the 2021 Census, money to address problems with the Phoenix pay administration system, IT services/technology modernization, etc. As expected, the federal government is creating an Advisory Council on the Implementation of National Pharmacare, chaired by Dr. Eric Hoskins (who was previously Ontario Health Minister). There was funding to establish a new Canadian Centre for Cyber Security and for the National Cybercrime Coordination Unit. The budget allocates money for frontline RCMP operations, to fight the opioid crisis and to address gender-based violence. It takes action on guns and gangs, provides funding for border and airport security, as well as Canada's intelligence community, among a host of other initiatives.

Higher tobacco taxes are expected to generate $375 million in the coming fiscal year (and more like $1.5 billion over the full fiscal plan). Cannabis legalization, meanwhile, is set to raise almost $700 million through 2022-23, with a revenue-sharing agreement having been earlier negotiated with the provinces. Cannabis revenue will be split 75/25, with three quarters of the duties going to the provinces (with an expectation that provincial proceeds will in turn filter down to municipalities, deemed to be on the "front lines of legalization").

Elsewhere, the budget acknowledged that infrastructure money is flowing out the door slower than previously anticipated. So nearly $5 billion of allocated infrastructure money is being transferred from 2017-18 and 2018-19 to later years, which better aligns with when lower levels of government are likely to access this funding.

Pension protection was flagged as a priority going forward, with the government aiming to consult with pensioners, workers and companies on a way to better ensure retirement security and avoid a Sears-style situation, where insolvency leaves pensioners facing unexpected losses. Meanwhile, upcoming legislation will implement enhancements to the Canada Pension Plan (CPP) agreed to late last year.

Debt ratio continues downward track

As noted, the government has yet to make a firm commitment to deficit elimination. However, with the deficit stepping down in each successive year, and respectable economic growth anticipated, Ottawa expects to keep its debt-to-GDP ratio on a declining path. This is a key fiscal anchor for the government, rating agencies and bondholders alike.

The detailed fiscal plan puts the debt-to-GDP ratio at 30.4% for the outgoing fiscal year. That metric is set to fall to 30.1% in 2018-19, dropping below 30% thereafter and reaching 28.4% by 2022-23. This leaves the federal government in an enviable fiscal position. Moreover, this fairly low debt burden suggests the government would have room to respond should the economy need a fiscal boost down the road. Canada's national fiscal sustainability is further demonstrated by a general government net debt-to-GDP ratio that remains far and away the lowest in the G-7.

For bond investors, the *Debt Management Strategy*—presented as an annex to the budget proper—is required reading. It's here where you'll find details on how the government intends to fund a net financial requirement of roughly $35 billion for the 2018-19 fiscal year, where it prefers to steer the outstanding stock of T-bills, and where on the curve its bonds will be placed.

Here are the highlights:

- Treasury bills proved to be a financial shock absorber in 2017-18, with the extra revenue spun off by a stronger-than-expected economy contributing to a smaller-than-expected T-bill stock. The government expects to have $125 billion of outstanding bills by March 2018, but by the end of 2018-19, plans to boost the bill stock to $138 billion—a level deemed sufficient to ensure a liquid and well-functioning market. The use of cash management bills will continue;
- When you raise more money from T-bills and have a smaller deficit than the prior year's plan, you get a smaller bond program. And that's exactly what's happening in 2018-19. The gross bond program amounts to $113 billion (excluding switch operations and inflation-related adjustments), a non-trivial reduction relative to the outgoing year's $136 billion in supply. After controlling for maturities and buybacks, the stock of outstanding Canadas is due to grow roughly $20 billion in the coming fiscal year, again a notably slower pace of net supply than in 2017-18, when the stock of domestic Canada bonds jumped more than $40 billion;
- So gross bond supply is due to fall $23 billion on a year-over-year basis. Where do you eliminate supply? The answer: across all nominal sectors, but most notably in the 2- to 5-year part of the curve. While the number of 2-year and 5-year operations planned for the coming fiscal year are unchanged from 2017-18, benchmark target sizes are stepping down. For 2s, the benchmark size range falls to $10-16 billion (vs $12-18 billion previously), while 5s see a decline to $11-17 billion (vs $14-20 billion previously). In the 3-year sector, two fewer auctions are planned. Recall that "new 3s" are fungible with "old 5s", and even with marginally less supply here, we will end up with some hyper-liquid bonds as what was originally 5-year paper rolls down the curve;
- Out the curve, the number of regular 10- and 30-year nominal auctions remain the same, at 5 and 3 respectively. The target benchmark size of 10s will also need to move a bit lower, to accommodate the smaller overall program. Benchmark tens are now expected to be $10-16 billion in size vs $12-18 billion previously. Two switch buybacks of old 30s are planned, which will supplement liquidity in benchmark longs. Meanwhile the government retains the flexibility to issue additional ultra-longs should market conditions prove favourable. Potential dates will continue to be included in the *Quarterly Bond Schedule*, but as we saw recently, extra-longs are "a possibility but not a commitment". It's steady as she goes for RRBs, as quarterly auctions will continue.
- All told, the medium-term debt strategy sees the average term to maturity of the government's domestic market debt holding fairly stable at roughly 5.5 to 6.5 years over the medium term.
- As for foreign supply, direct issuance of foreign currency bonds is one potential source of financing Canada's official international reserves. For 2018-19, reserve funding requirements are pegged at roughly US$10 billion. Indicatively, the government sees C$7 billion being sourced from foreign debt capital markets, although as always, the ultimate strategy here will depend on market conditions and a variety of other considerations.

All in all, 2018-19's net financial requirement of $35 billion (~1.5% of GDP) looks like an entirely manageable level for a sovereign with such a sterling credit rating and demonstrated traction with international investors. (Notwithstanding some gradual progress on the deficit, net funding needs hold slightly above $30 billion/year through 2022-23.)

Far from strapping on undue rollover risks, the extra T-bills flagged here will restore needed liquidity to the front end of Canada's debt capital markets… welcome news for money market traders and investors alike. Cash balances are holding steady in and around $37 billion, with overall liquidity levels sufficient to meet at least one month of net projected cash flows (coupons and refinancings). The "smaller" bond program (vs the prior two fiscal years) is still relatively sizeable by historic standards, and despite the indicated reduction in target benchmark sizes, Canada's sovereign will continue to possess large, liquid benchmark issues across much of the curve. So we needn't fear a short squeeze in the front end of our bond market. Meanwhile, with no marginal supply out in the long end, there's little risk of crowding out other issuers, be they provincial/municipal governments or corporates. It's a thoughtful approach to debt management, one that appears to nicely balance a variety of key considerations/objectives: fiscal efficiency, secondary market liquidity and program stability/predictability being overriding considerations.

Warren Lovely

Summary Statement of Transactions
billions of dollars

		Projection					
	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022	2022–2023
Budgetary revenues	**293.5**	**309.6**	**323.4**	**335.5**	**348.0**	**362.1**	**373.9**
Program expenses	287.2	304.6	312.2	321.5	331.5	340.7	350.1
Public debt charges	24.1	24.4	26.3	28.6	30.3	32.2	33.1
Total expenses	**311.3**	**329.0**	**338.5**	**350.0**	**361.9**	**372.9**	**383.2**
Adjustment for risk			-3.0	-3.0	-3.0	-3.0	-3.0
Final budgetary balance	**-17.8**	**-19.4**	**-18.1**	**-17.5**	**-16.9**	**-13.8**	**-12.3**
Financial position							
Total liabilities	1,097.2	1,129.6	1,162.0	1,194.1	1,226.5	1,257.0	1,288.3
Financial assets[1]	382.8	392.9	404.2	415.6	428.3	441.4	456.8
Net debt	714.5	736.7	757.8	778.5	798.1	815.6	831.5
Non-financial assets	82.6	85.3	88.2	91.4	94.2	97.8	101.4
Federal debt[1]	**631.9**	**651.5**	**669.6**	**687.1**	**704.0**	**717.8**	**730.1**
Per cent of GDP							
Budgetary revenues	14.4	14.5	14.5	14.5	14.5	14.6	14.5
Program expenses	14.1	14.2	14.0	13.9	13.8	13.7	13.6
Public debt charges	1.2	1.1	1.2	1.2	1.3	1.3	1.3
Budgetary balance	-0.9	-0.9	-0.8	-0.8	-0.7	-0.6	-0.5
Federal debt	31.0	30.4	30.1	29.8	29.4	28.9	28.4

Note: Totals may not add due to rounding.
1 The projected level of financial assets for 2017–18 includes an estimate of other comprehensive income.

Federal • 2018 Budget

Economics and Strategy

Montreal Office
514-879-2529

Stéfane Marion
Chief Economist and Strategist
stefane.marion@nbc.ca

Marc Pinsonneault
Senior Economist
marc.pinsonneault@nbc.ca

Kyle Dahms
Economist
kyle.dahms@nbc.ca

Paul-André Pinsonnault
Senior Fixed Income Economist
paulandre.pinsonnault@nbc.ca

Matthieu Arseneau
Senior Economist
matthieu.arseneau@nbc.ca

Jocelyn Paquet
Economist
jocelyn.paquet@nbc.ca

Krishen Rangasamy
Senior Economist
krishen.rangasamy@nbc.ca

Angelo Katsoras
Geopolitical Analyst
angelo.katsoras@nbc.ca

Toronto Office
416-869-8598

Warren Lovely
MD, Public Sector Research and Strategy
warren.lovely@nbc.ca

UK Residents

This Report is a marketing document. This Report has not been prepared in accordance with EU legal requirements designed to promote the independence of investment research and it is not subject to any prohibition on dealing ahead of the dissemination of investment research. In respect of the distribution of this Report to UK residents, NBF has approved the contents (including, where necessary, for the purposes of Section 21(1) of the Financial Services and Markets Act 2000). This Report is for information purposes only and does not constitute a personal recommendation, or investment, legal or tax advice. NBF and/or its parent and/or any companies within or affiliates of the National Bank of Canada group and/or any of their directors, officers and employees may have or may have had interests or long or short positions in, and may at any time make purchases and/or sales as principal or agent, or may act or may have acted as market maker in the relevant investments or related investments discussed in this Report, or may act or have acted as investment and/or commercial banker with respect hereto. The value of investments, and the income derived from them, can go down as well as up and you may not get back the amount invested. Past performance is not a guide to future performance. If an investment is denominated in a foreign currency, rates of exchange may have an adverse effect on the value of the investment. Investments which are illiquid may be difficult to sell or realise; it may also be difficult to obtain reliable information about their value or the extent of the risks to which they are exposed. Certain transactions, including those involving futures, swaps, and other derivatives, give rise to substantial risk and are not suitable for all investors. The investments contained in this Report are not available to retail customers and this Report is not for distribution to retail clients (within the meaning of the rules of the Financial Conduct Authority). Persons who are retail clients should not act or rely upon the information in this Report. This Report does not constitute or form part of any offer for sale or subscription of or solicitation of any offer to buy or subscribe for the securities described herein nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever.

This information is only for distribution to Eligible Counterparties and Professional Clients in the United Kingdom within the meaning of the rules of the Financial Conduct Authority. NBF is authorised and regulated by the Financial Conduct Authority and has its registered office at 71 Fenchurch Street, London, EC3M 4HD.

NBF is not authorised by the Prudential Regulation Authority and the Financial Conduct Authority to accept deposits in the United Kingdom.

U.S. Residents

National Bank of Canada Financial Inc. (NBCFI), a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the Financial Industry Regulatory Authority (FINRA), and a member of the Securities Investor Protection Corporation (SIPC), is distributing this Report in the United States. NBCFI operates pursuant to a 15 a-6 Agreement with its Canadian affiliate, NBF Inc.

This Report has been prepared in whole or in part by personnel employed by non-US affiliates of NBCFI that are not registered as broker/dealers in the US. These non-US personnel are not registered as associated persons of NBCFI and are not licensed or qualified as research analysts with FINRA or any other US regulatory authority and, accordingly, may not be subject (among other things) to FINRA restrictions regarding communications by a research analyst with the subject company, public appearances by research analysts and trading securities held in a research analyst account.

The author(s) who prepared these Reports certify that this Report accurately reflects his or her personal opinions and views about the subject company or companies and its or their securities, and that no part of his/her compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in this Report as to the securities or companies.

NBF compensates the authors of this Report from a variety of sources, and such compensation is funded by the business activities of NBF including, Institutional Equity and Fixed Income Sales and Trading, Retail Sales, the correspondent clearing business and Corporate and Investment Banking.

Because the views of its personnel may differ, members of the National Bank Financial Group may have or may in the future issue Reports that are inconsistent with this Report, or that reach conclusions different from those in this Report. To make further inquiry related to this Report, United States residents should contact their NBCFI registered representative.

This document is intended for institutional investors and is not subject to all of the independence and disclosure standards under FINRA rules applicable to debt research Reports prepared for retail investors. This Report may not be independent of the proprietary interests of NBF, NBCFI, or their affiliates. NBF, NBCFI, or their affiliates may trade the securities covered in this Report for their own account and on a discretionary basis on behalf of certain clients. Such trading interests may be contrary to the recommendation(s) offered in this Report.

HK Residents

With respect to the distribution of this report in Hong Kong by NBC Financial Markets Asia Limited (“NBCFMA”)which is licensed by the Securities and Futures Commission (“SFC”) to conduct Type 1 (dealing in securities) and Type 3 (leveraged foreign exchange trading) regulated activities, the contents of this report are solely for informational purposes. It has not been approved by, reviewed by, verified by or filed with any regulator in Hong Kong. Nothing herein is a recommendation, advice, offer or solicitation to buy or sell a product or service, nor an official confirmation of any transaction. None of the products issuers, NBCFMA or its affiliates or other persons or entities named herein are obliged to notify you of changes to any information and none of the foregoing assume any loss suffered by you in reliance of such information.

The content of this report may contain information about investment products which are not authorized by SFC for offering to the public in Hong Kong and such information will only be available to, those persons who are Professional Investors (as defined in the Securities and Futures Ordinance of Hong Kong (“SFO”)). If you are in any doubt as to your status you should consult a financial adviser or contact us. This material is not meant to be marketing materials and is not intended for public distribution. Please note that neither this material nor the product referred to is authorized for sale by SFC. Please refer to product prospectus for full details.

There may be conflicts of interest relating to NBCFMA or its affiliates’ businesses. These activities and interests include potential multiple advisory, transactional and financial and other interests in securities and instruments that may be purchased or sold by NBCFMA or its affiliates, or in other investment vehicles which are managed by NBCFMA or its affiliates that may purchase or sell such securities and instruments.

No other entity within the National Bank of Canada group, including National Bank of Canada and National Bank Financial Inc, is licensed or registered with the SFC. Accordingly, such entities and their employees are not permitted and do not intend to: (i) carry on a business in any regulated activity in Hong Kong; (ii) hold themselves out as carrying on a business in any regulated activity in Hong Kong; or (iii) actively market their services to the Hong Kong public.