

July 14, 2021

The BoC's Rising Confidence May Be Setting Up a More Powerful Shift Into Fall

- The BoC tapered bond purchases to \$2B/week as expected
- Implied policy rate guidance continues to point to 2022 lift-off
- Governing Council is increasingly confident in the outlook
- If all goes well, a more hawkish narrative could come in October
- Canadians should continue planning for higher borrowing costs

Gradual, measured, but with rising conviction toward policy exits. That about sums up the BoC communications including the statement (here), Macklem's opening statement to the press conference (here) and the Q&A during the press conference. A detailed review of what the BoC did is offered with accompanying commentary.

While the BoC broadly met expectations for this meeting including by tapering again, the BoC's full communications continue to indicate that a push toward a neutral policy rate will begin in earnest within about a year and perhaps sooner. The OIS market and BAX futures are pricing the commencement of rate hikes next year and today's communications generally add to our conviction for a material flattening of the broad rates curve and higher borrowing costs ahead for Canadians.

For now, CAD depreciated to the USD and the curve rallied post-BoC and in sync with the US moves on the day which probably also reflects a shift in precommunications positioning that was slanted toward a potentially more hawkish outcome especially after the RBNZ and both US and UK inflation.

The bigger shift is likely into the October 27th MPR. By that point they'll have new pandemic-era inflation figures with revised spending weights compared to the soon to be past due stamp on the inflation measures they used to forecast inflation today, more evidence of a growth rebound in Q3 and likely herd immunity levels of vaccination by the end of July or early August. We'll see about election timing but there is a growing sense the writ will be dropped for an election to occur before then.

It will take time to further inform the narrative around this path, but the strong message is that the BoC expects a broad return to equilibrium conditions within the medium term which implies a return toward a neutral policy rate stance. The BoC's neutral rate range of 1.75–2.75% was updated for the pandemic era last Fall, and is a guidepost for where the policy rate should come to rest into 2023.

ACTIONS TAKEN

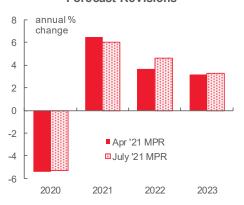
The BoC reduced the weekly pace of Government and Canada bond purchases by \$1B down to \$2 billion as expected. That's their third taper after last October, this past April and now today and each one has been a \$1B reduction. The October taper was more technical in nature and related to liquidity distortions to

CONTACTS

Derek Holt, VP & Head of Capital Markets Economics 416.863.7707
Scotiabank Economics
derek.holt@scotiabank.com

Chart 1

Bank of Canada GDP Forecast Revisions



Sources: Scotiabank Economics, Bank of Canada Monetary Policy Report.

Chart 2

The Bank of Canada's Monetary Policy Report (MPR) Canadian Macroeconomic Projections, annual % change

	2020e	2021f	2022f	2023f
GDP				
Jan '21 MPR	-5.5	4.0	4.8	2.5
Apr '21 MPR	-5.4	6.5	3.7	3.2
Jul '21 MPR	-5.3	6.0	4.6	3.3
CPI Inflation				
Jan '21 MPR	0.7	1.6	1.7	2.1
Apr '21 MPR	0.7	2.3	1.9	2.3
Jul '21 MPR	0.7	3.0	2.4	2.2
Sources: Scotiabank Economics, Bank of Canada.				



July 14, 2021

market pricing for the BoC's overnight policy rate. The April and July reductions have been more driven by the growing optimism toward the outlook.

Taper guidance remained broadly unchanged by noting that "If the economy evolves broadly in line with our outlook, then over time it won't need as much QE." The BoC continues to signal that further taper steps will be informed by tracking developments relative to their expectations. In my view, they are likely to taper again at the October meeting and one should leave open the possibility they end net purchases outright at that point. If not, then I wouldn't push the end of purchases net of reinvestments past December.

The policy rate was held at 0.25% and the BoC continues to avoid explicit forward guidance. The implied forecast details continue to indicate lift-off by 2022H2 (we think mid-2022 with earlier risk) given the unchanged timing for the closure of spare capacity and Governor Macklem's repeated emphasis upon raising the policy rate around when this occurs. He again emphasized higher uncertainty around estimates of slack. There had been risk that the BoC might have brought forward closure of its output gap but they did not do so at this meeting (more on this below).

When Macklem was asked about how he can keep rate hike guidance around 2022H2 given all of the changes he described, he answered that the outlook is not that different from their forecasts April. He noted the BoC has slightly softer growth in H1 than previously expected but a slightly stronger rebound forecast. By the end of the projection the level of GDP is slightly above where it was previously assumed to rest. This is a bit of a circular argument though in that the answer to how come he isn't changing guidance is simply that their forecasts haven't changed...

GROWTH AND SPARE CAPACITY FORECASTS—HIGHER GDP LEVELS

Growth forecast revisions are shown in charts 1 and 2. Macklem's opening remarks to his press conference said it all in terms of the more upbeat tone shift. He indicated that on Governing Council:

"There was a strong consensus that growth will strengthen and broaden in the months ahead as consumers return to more normal spending patterns, higher foreign demand lifts exports and businesses increase investment. But looking ahead, we expect a strong rebound in the second half of this year and more sustained growth through 2022 than we previously forecast..... The economy is projected to move into modest excess demand, so inflation is slightly above target through 2023 before moving toward target in 2024. In sum, the reopening of the economy and the strong progress on vaccinations have given us reason to be more optimistic about the direction of the economy. But we are not there yet, and we are mindful that the process is likely to be bumpy, and some scars will remain."

The BoC revised Q2 growth lower than we had been tracking to 2% q/q annualized (from 3.5%) which in addition to the earlier growth of 5.6% that was a little below their expectations into prior forecast rounds means that net slack is estimated by the BoC to be in a 2–3% range as of Q2. Full year growth in 2021 was revised down to 6.0% to reflect this slightly softer starting point (from 6.5%) but remains very strong.

The qualitative guidance included reference to how ""We've been surprised by how resilient consumers have been. On exports, we expect a strong US economy as the biggest destination for exports and the US is experiencing capacity constraints that should back into demand for Canadian exports." He went on to say that this would feed conditions in which to invest and address capacity constraints.

The effect of lowering Q2 growth on spare capacity was offset, however, by raising growth forecasts to 4.6% in 2022 (from 3.7%) and 3.3% in 2023 (from 3.3%). Part of the rationale met expectations in the form of pulled forward timing for broad immunity fed by vaccinations to the current quarter from 'later in the year' previously (I think earlier in Q3 rather than later). On net, as they show in chart 2-A of the MPR, the forecast level of GDP has been raised over 2021–23.

Potential GDP growth estimates were left unchanged as per custom at this time of year and the estimated ranges remain very wide at 0.8–2.2% in 2021, 0.4–2.2% in 2022 and 1–3% in 2023. This uncertainty surrounding the economy's potential growth rate compounds the uncertainty around actual GDP growth forecasts.

You could ever so slightly infer that the output gap is forecast to be a little smaller over time than previously forecast, given higher forecast level of GDP and unchanged potential GDP assumptions, but the measurement issues didn't merit a change in broad guidance. Still, a higher level of forecast GDP would imply they think the gap closes a little closer to mid-2022 in this forecast





round relative to the last forecast round. We think spare capacity will be gone into early next year.

INFLATION FORECASTS—CHASING PEAKS, BUT SUSTAINABLY ON-TARGET

Charts 3 and 4 show their inflation forecast revisions. The BoC raised near-term inflation forecasts to 3.5% by year-end (from 2.2%) but left 2022Q4 and 2023Q4 unchanged at 2.0% and 2.4% respectively while guiding that 2024 is expected to return inflation to 2%. I wouldn't pay too much attention to that far out given the limited ability of the central bank to forecast inflation and given the historic tendency to always indicate inflation to be fully under control at the 2% target over the medium term. The BoC's inflation forecasts have been way off throughout the pandemic and consistent exceeded as chart 4 shows.

Still, the messaging from the BoC is that the present rates of inflation are approaching a cycle peak after having been blown away relative to their expectations. They don't, however, view the achievement of on-target inflation as a transitory accomplishment versus forecast persistence throughout 2022–24.

Macklem emphasized transitory factors in the nearer term, but they are nevertheless incrementally more uncertain than what I heard when Macklem last spoke on the topic. The BoC says "The factors pushing up inflation are transitory, but their persistence and magnitude are uncertain and will be monitored closely."

Chart 18 in the MPR breaks down drivers of their inflation forecast. Mildly disinflationary exchange rate effects end by early 2022, the closure of the output gap lifts inflation going forward, but 'other' factors like supply chains lead to dissipating effects along with softer commodity price effects on headline CPI. Note the elimination of supply side challenges is the dominant driver of their diminished inflation forecast back to target which is placing heavy reliance upon the single biggest source of unanticipated upward pressure on inflation to date.

One argument I found interesting in terms of Macklem's view that present inflation rates will prove transitory is that he noted there should be substitution back toward services that are marked by less inflationary pressures than goods as the services economy reopens. An obvious counterpoint is that perhaps services inflation is the next up-leg...

INFLATION EXPECTATIONS—SAY WHAT??

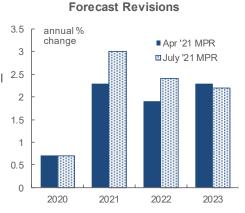
I thought Macklem's comments on inflation expectations were curious. He started off by citing implied market inflation breakevens that most market participants understand to be at best only modestly useful in Canada given, for instance, the liquidity distortions that can dominate.

But his comments on consumer and business expectations seemed totally out of line with the BoC's surveys. Recall chart 5 that shows 86% of businesses expect inflation to be 2% + with a record high 35% expecting inflation to be over 3% on average over the next two years. Also recall chart 6 that shows that consumers expect inflation of 3% or slightly higher across all time horizons (1-, 2- and 5-years ahead). Macklem could have said these are not the best gauges instead of indicating the BoC is not seeing elevated measures of business and household expectations which isn't true according to their very own surveys.

PURCHASE AND REINVESTMENT DETAILS (OR LACK THEREOF)

This section is easy: there weren't any details! We're left assuming—probably quite reasonably so—that the announced reduction in purchases will be proportionately

Chart 3 Bank of Canada Inflation



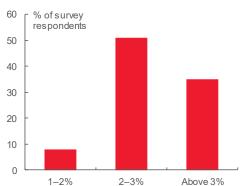
Sources: Scotiabank Economics, Bank of Canada Monetary Policy Report.

Chart 4

BoC Inflation Forecasts y/y % change 4 Jul'21 3 Actual 2 Jan '21 MPR 1 Jul'20 MPR 0 Oct '20 MPR -1 21 22 23 Sources: Scotiabank Economics, Bank of Canada, Haver Analytics

Chart 5

Canadian Businesses Expect Inflation to Surpass BoC's Target



Sources: Scotiabank Economics, Bank of Canada's Business Outlook Survey.



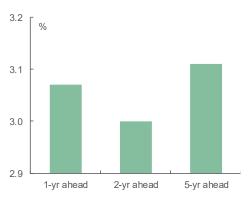
July 14, 2021

spread across the curve without adjusting weighted average maturities of targeted purchases. They said so in April and the silence today suggests that remains the case. Still, it would have been a bit of a no brainer to confirm as much for fixed income market participants especially given some belief that supply distortions may merit reducing some purchase flows faster than others across the curve although to date the BoC has thought that to be somewhat micromanaging the curve.

We also didn't hear anything further on reinvestment plans. Macklem rightly noted that's probably better suited to a future press conference when they get to that stage, but some inkling that the BoC is thinking about the issue would be of use to market participants.

For instance, will they reinvest in proportion across the curve or by matching maturing flows? Nothing was offered (I think in proportion). Will they reinvest as maturing flows come up or on a predictable average weekly pace that nets out to the same thing in the longer run? Nothing (I think a steady drip approach makes more sense). How long might they reinvest before hiking? Nothing (I think ~ six months is the implied guidance between ending net purchases and then hiking). Once they begin to hike might they

Canadian Consumers Expect a Sustained Inflation Overshoot



Sources: Scotiabank Economics, Bank of Canada's Canadian Survey of Consumer Expectations.

reinvest for an extended time like the Fed did over 2015–17? Nothing (I'm unsure as this isn't the GFC and there is less of a case for sustaining a bloated balance sheet for as long a period).

ELEVATED MARKET RISKS INTO OCTOBER

It's all very well and fine for the BoC to create the optics of being fully in charge of the outlook with estimates for when spare capacity shuts while opining on estimates of labour slack and when inflation may sustainably return to target. The reality is that the output gap is an extraordinarily imprecise tool and both prices and wages are likely to be better depictions of malleable slack estimates. Hard evidence will guide central banks.

Cue October and the evidence we may well have by then. By then we'll know it as fact (hopefully) that domestic herd immunity has been achieved and that point is more likely to arrive over the rest of this month or into early August. Whether Canada remains isolated from pick ups in the delta variant elsewhere will also be much better understood. By then we'll have a bit more evidence of the magnitude of the reopening rebound and inflationary pressures. Perhaps a Federal election will have been fought and be over with by the time of the BoC meeting at the end of October. Elections often bring about a promised sprinkling of goodies within revised campaign platforms and this recovery narrative needs no further fiscal help without invoking monetary policy neutralization.

What that says about the rate path is guidance toward getting to neutral fairly quickly once they lift off. We have two hikes next year (risk of more...) and then a roughly estimated march to 1.75% at the end of 2023 in longer term forecasts. That would return the BoC to the low end of its 1.75–2.75% neutral R* range

LABOUR MARKET SLACK, WAGES AND PRODUCTIVITY

The BoC estimated that the net jobs shortfall in Canada is approximately 550,000 workers that would be needed to recoup lost jobs to date plus accommodate population growth in a full restoration of the employment rate. That is about one-third of the estimated labour slack that some journalists have been bandying about. It's larger than I personally think is needed. They assume no longer lived scarring issues. Macklem spoke during his press conference about how "Large increases in jobs are expected to continue over the summer months." To me, it's highly feasible we recoup all or much of that jobs shortfall this year as the economy reopens.

When Macklem was quizzed on reports of labour shortages, he said "Yes we are hearing of shortages. These are temporary adjustment issues as you reopen the economy." That could be debatable if skills mismatches are more permanent in nature. He went on to say they are not seeing wage gains that are exceeding productivity growth and it's not clear why he said that in relation to the hard data.

For one thing, we know that Canadian labour productivity defined as output per hour worked has been awful during the pandemic so far and especially relative to the US (chart 7). The MPR had a one-word reference to productivity that was in a different context and so once again the BoC is not acknowledging a productivity problem to accompany its views on job shortfalls. I find that





disturbing for a central bank given the connection between productivity, wages and inflation.

Further, the point on wage growth picked one source in chart 11 of the MPR and noted that "measures of wage inflation remain subdued." The chart showed two—one using variable weights and another using fixed weights to control for compositional shifts in who is getting wage gains—but omitted the other measures the BoC has previously used.

Maybe the signal here is that the BoC has abandoned the multiple measures of wage growth that former Governor Poloz turned toward when the BoC emphasized the wage common composite (here). The measures they emphasized in the MPR this time were only drawn from the Labour Force Survey perhaps because of its freshness, but that source received a trivial weight in the wage common composite that the BoC had previously moved toward and the reason this LFS measure is low now is in no small part because of a high pace of distorted gains a year ago. The BoC can't talk down base effects as one source of higher inflation while simultaneously ignoring the role of base effects in this presently modest measurement of wage growth. That sounds like bending a narrative to me.... In any event, I'd like to hear more from the BoC on this and whether they really have gone back to the LFS measure of wages.

Canadian Productivity Lags US **Out of Downturns** 110 index, start of recovery=100 COVID-19 Canada 95 -- COVID-19 US GFC Canada 90 - GFC US Each 't' represents one quarter 80 t+1 t+2 t+3 t+4 t+5 t+6 t+7 t+8 Sources: Scotiabank Economics, Statistics

Chart 7

Sources: Scotiabank Economics, Statistics Canada, Bureau of Labour Statistics.

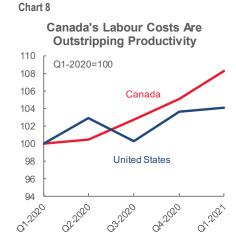
Regardless, the wage growth relative to productivity growth connection strikes me as being materially different than the BoC let on today. Unit labour costs embody these points and other labour costs and show that Canada is on a material upswing in unit labour costs (chart 8). After adjusting to US concepts and relative to NAIRU unemployment rates, Canada has less labour slack than the US and this may help to understand greater labour cost pressures relative to productivity growth.

MISCELLANEOUS PRESS CONFERENCE POINTS

When grilled about scarring effects on workers, **Macklem said** "we think scarring will be less than we thought six months ago." That means growth could benefit more as a jobs recovery unfolds more quickly. Macklem said the BoC is confident in a strong rebound which implies that scarring consequences "are minimized." Macklem repeated many prior BoC communications that have downplayed looking at any one particular measure of the job market.

Macklem had nothing significant to say about the dollar. He repeated that the BoC takes the present level of the currency (1.25USDCAD, 80 cents in retail terms) in their projections. He basically spoke to the old type 1 and type 2 factors (fundamental reasons versus factors that are external and unrelated to fundamental drivers) and how only moves not explained by more fundamental moves would be of concern. He did not signal any such concerns today.

When asked whether the BoC is considering targeting any labour market variables, Macklem reinforced that the slack framework and inflation target are the BoC's mandate. That reaffirms they won't incorporate labour market variables or targets or full employment conditions when they publish their strategic review's conclusions later in the year.



Sources: Scotiabank Economics, Statistics Canada, BLS.

On housing markets, Macklem hedged his bets by basically speaking to two tailed risks. He said that if people return to services spending then they won't have as much for mortgage payments which could be a dampening influence on the housing market and the desire for more space during the pandemic, but he also said that maybe a pick up in employment and immigration could add renewed strength. I didn't hear any reference by Macklem to the continued upward trend in consumers' house price expectations as reflected in their recent consumer survey (chart 2, here).

Please see the attached statement comparison. Being an MPR meeting with fresh forecasts, the scope for comparing wording changes is more limited.



July 14, 2021

RELEASE DATE: July 14, 2021

The Bank of Canada today held its target for the overnight rate at the effective lower bound of ¼ percent, with the Bank Rate at ½ percent and the deposit rate at ¼ percent. The Bank is maintaining its extraordinary forward guidance on the path for the overnight rate. This is reinforced and supplemented by the Bank's quantitative easing (QE) program, which is being adjusted to a target pace of \$2 billion per week. This adjustment reflects continued progress towards recovery and the Bank's increased confidence in the strength of the Canadian economic outlook.

The global economy is recovering strongly from the COVID-19 pandemic, with continued progress on vaccinations, particularly in advanced economies. However, the recovery is still highly uneven and remains dependent on the course of the virus. The recent spread of new COVID-19 variants is a growing concern, especially for regions where vaccinations rates remain low.

Global GDP growth is expected to reach 7 percent this year and then moderate to about 4 ½ percent in 2022 and just over 3 percent in 2023. This a slightly stronger forecast than the one in the Bank's April Monetary Policy Report (MPR) and primarily reflects a stronger US outlook. Global financial conditions remain highly accommodative. Rising demand is supporting higher oil prices, while non-energy commodity prices remain elevated. The Canada-US exchange rate is little changed since April.

In Canada, the third wave of the virus slowed growth in the second quarter. However, falling COVID-19 cases, progress on vaccinations and easing containment restrictions all point to a strong pickup in the second half of this year. The Bank now expects GDP growth of around 6 percent in 2021 – a little slower than was expected in April – but has revised up its 2022 forecast to 4 ½ percent and projects 3 ¼ percent growth in 2023.

Consumption is expected to lead the recovery as households return to more normal spending patterns, while housing market activity is projected to ease back from historical highs. Stronger international demand should underpin a solid recovery in exports. As domestic and foreign demand increases and confidence improves, business investment will gain strength. Employment has once again begun to rebound, and we expect the hardest-hit segments of the labour market to post strong gains as the economy re-opens. However, the pace of the recovery will vary among industries and workers, and it could take some time to hire workers with the right skills to fill jobs. The aftermath of lockdowns and ongoing structural changes in the economy both mean that estimates of potential output and when the output gap will close are particularly uncertain.

CPI inflation was 3.6 percent in May, boosted by temporary factors that include base-year effects and stronger gasoline prices, as well as pandemic-related bottlenecks as economies re-open. Core measures of inflation have also risen but by less than the CPI. In some high-contact services, demand is rebounding faster than supply, pushing up prices from low levels. Transitory supply constraints in shipping and value chain disruptions for semiconductors are also translating into higher prices for cars and some other goods. With higher gasoline prices and on-going supply bottlenecks, inflation is likely to remain above 3 percent through the second half of this year and ease back toward 2 percent in 2022, as short-run imbalances diminish and the considerable overall slack in the economy pulls inflation lower. The factors pushing up inflation are transitory, but their persistence and magnitude are uncertain and will be monitored closely.

The Governing Council judges that the Canadian economy still has considerable excess capacity, and that the recovery continues to require extraordinary monetary policy support. We remain committed to holding the policy interest rate at the effective lower bound until economic slack is absorbed so that the 2 percent inflation target is sustainably achieved. In the Bank's July projection, this happens sometime in the second half of 2022. The Bank's QE program continues to reinforce this commitment and keep interest rates low across the yield curve. Decisions regarding further adjustments to the pace of net bond purchases will be guided by Governing Council's ongoing assessment of the strength and durability of the recovery. We will continue to provide the appropriate degree of monetary policy stimulus to support the recovery and achieve the inflation objective.

RELEASE DATE: June 9, 2021

The Bank of Canada today held its target for the overnight rate at the effective lower bound of ¼ percent, with the Bank Rate at ½ percent and the deposit rate at ¼ percent. The Bank is **maintaining** its extraordinary forward guidance on the path for the overnight rate. This is reinforced and supplemented by the Bank's quantitative easing (QE) program, **which continues at a target pace of \$3 billion per week.**

With COVID-19 cases falling in many countries and vaccine coverage rising, global economic activity is picking up. Growth remains uneven across regions, however. The US is experiencing a strong consumer-driven recovery and a rebound is beginning to take shape in Europe, while a resurgence of the virus is hampering the recovery in some emerging market economies. Financial conditions remain highly accommodative, reflected in broadly higher asset prices. Commodity prices have risen further, notably oil, and the Canadian dollar has seen a further appreciation.

In Canada, economic developments have been broadly in line with the outlook in the April *Monetary Policy Report* (MPR). Despite the second wave of the virus, first quarter GDP growth came in at a robust 5.6 per cent. While this was lower than the Bank had projected, the underlying details indicate rising confidence and resilient demand. Household spending was stronger than expected, while businesses drew down inventories and increased imports more than anticipated. Renewed lockdowns associated with the third wave are dampening economic activity in the second quarter, largely as anticipated. Recent jobs data show that workers in contact-sensitive sectors have once again been most affected. The employment rate remains well below its prepandemic level, with low wage workers, youth and women continuing to bear the brunt of job losses.

With vaccinations proceeding at a faster pace, and provincial containment restrictions on an easing path over the summer, the Canadian economy is expected to rebound strongly, led by consumer spending. Housing market activity is expected to moderate but remain elevated. Strong growth in foreign demand and higher commodity prices should also lead to a solid recovery in exports and business investment. Despite progress on vaccinations, there continues to be uncertainty about the evolution of new COVID-19 variants. More broadly, the risks to the inflation outlook identified in the April MPR remain relevant.

As expected, CPI inflation has risen to around the top of the 1-3 percent inflation-control range, due largely to base-year effects and much stronger gasoline prices. Core measures of inflation have also risen, due primarily to temporary factors and base year effects, but by much less than CPI inflation. While CPI inflation will likely remain near 3 percent through the summer, it is expected to ease later in the year, as base-year effects diminish and excess capacity continues to exert downward pressure.

The Governing Council judges that there remains considerable excess capacity in the Canadian economy, and that the recovery continues to require extraordinary monetary policy support. We remain committed to holding the policy interest rate at the effective lower bound until economic slack is absorbed so that the 2 percent inflation target is sustainably achieved. In the Bank's April projection, this happens sometime in the second half of 2022. The Bank is continuing its QE program to reinforce this commitment and keep interest rates low across the yield curve. Decisions regarding adjustments to the pace of net bond purchases will be guided by Governing Council's ongoing assessment of the strength and durability of the recovery. We will continue to provide the appropriate degree of monetary policy stimulus to support the recovery and achieve the inflation objective.



July 14, 2021

This report has been prepared by Scotiabank Economics as a resource for the clients of Scotiabank. Opinions, estimates and projections contained herein are our own as of the date hereof and are subject to change without notice. The information and opinions contained herein have been compiled or arrived at from sources believed reliable but no representation or warranty, express or implied, is made as to their accuracy or completeness. Neither Scotiabank nor any of its officers, directors, partners, employees or affiliates accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or its contents.

These reports are provided to you for informational purposes only. This report is not, and is not constructed as, an offer to sell or solicitation of any offer to buy any financial instrument, nor shall this report be construed as an opinion as to whether you should enter into any swap or trading strategy involving a swap or any other transaction. The information contained in this report is not intended to be, and does not constitute, a recommendation of a swap or trading strategy involving a swap within the meaning of U.S. Commodity Futures Trading Commission Regulation 23.434 and Appendix A thereto. This material is not intended to be individually tailored to your needs or characteristics and should not be viewed as a "call to action" or suggestion that you enter into a swap or trading strategy involving a swap or any other transaction. Scotiabank may engage in transactions in a manner inconsistent with the views discussed this report and may have positions, or be in the process of acquiring or disposing of positions, referred to in this report.

Scotiabank, its affiliates and any of their respective officers, directors and employees may from time to time take positions in currencies, act as managers, co-managers or underwriters of a public offering or act as principals or agents, deal in, own or act as market makers or advisors, brokers or commercial and/or investment bankers in relation to securities or related derivatives. As a result of these actions, Scotiabank may receive remuneration. All Scotiabank products and services are subject to the terms of applicable agreements and local regulations. Officers, directors and employees of Scotiabank and its affiliates may serve as directors of corporations.

Any securities discussed in this report may not be suitable for all investors. Scotiabank recommends that investors independently evaluate any issuer and security discussed in this report, and consult with any advisors they deem necessary prior to making any investment.

This report and all information, opinions and conclusions contained in it are protected by copyright. This information may not be reproduced without the prior express written consent of Scotiabank.

™ Trademark of The Bank of Nova Scotia. Used under license, where applicable.

Scotiabank, together with "Global Banking and Markets", is a marketing name for the global corporate and investment banking and capital markets businesses of The Bank of Nova Scotia and certain of its affiliates in the countries where they operate, including; Scotiabank Europe plc; Scotiabank (Ireland) Designated Activity Company; Scotiabank Inverlat S.A., Institución de Banca Múltiple, Grupo Financiero Scotiabank Inverlat, Scotia Inverlat Casa de Bolsa, S.A. de C.V., Grupo Financiero Scotiabank Inverlat, Scotia Inverlat Derivados S.A. de C.V. – all members of the Scotiabank group and authorized users of the Scotiabank mark. The Bank of Nova Scotia is incorporated in Canada with limited liability and is authorised and regulated by the Office of the Superintendent of Financial Institutions Canada. The Bank of Nova Scotia is authorized by the UK Prudential Regulation Authority and is subject to regulation by the UK Financial Conduct Authority and Imited regulation by the UK Prudential Regulation Authority. Details about the extent of The Bank of Nova Scotia's regulation by the UK Prudential Regulation Authority and regulated by the UK Financial Conduct Authority and regulated by the UK Financial Conduct Authority and regulated by the UK Financial Conduct Authority and the UK Prudential Regulation Authority.

Scotiabank Inverlat, S.A., Scotia Inverlat Casa de Bolsa, S.A. de C.V., Grupo Financiero Scotiabank Inverlat, and Scotia Inverlat Derivados, S.A. de C.V., are each authorized and regulated by the Mexican financial authorities.

Not all products and services are offered in all jurisdictions. Services described are available in jurisdictions where permitted by law.