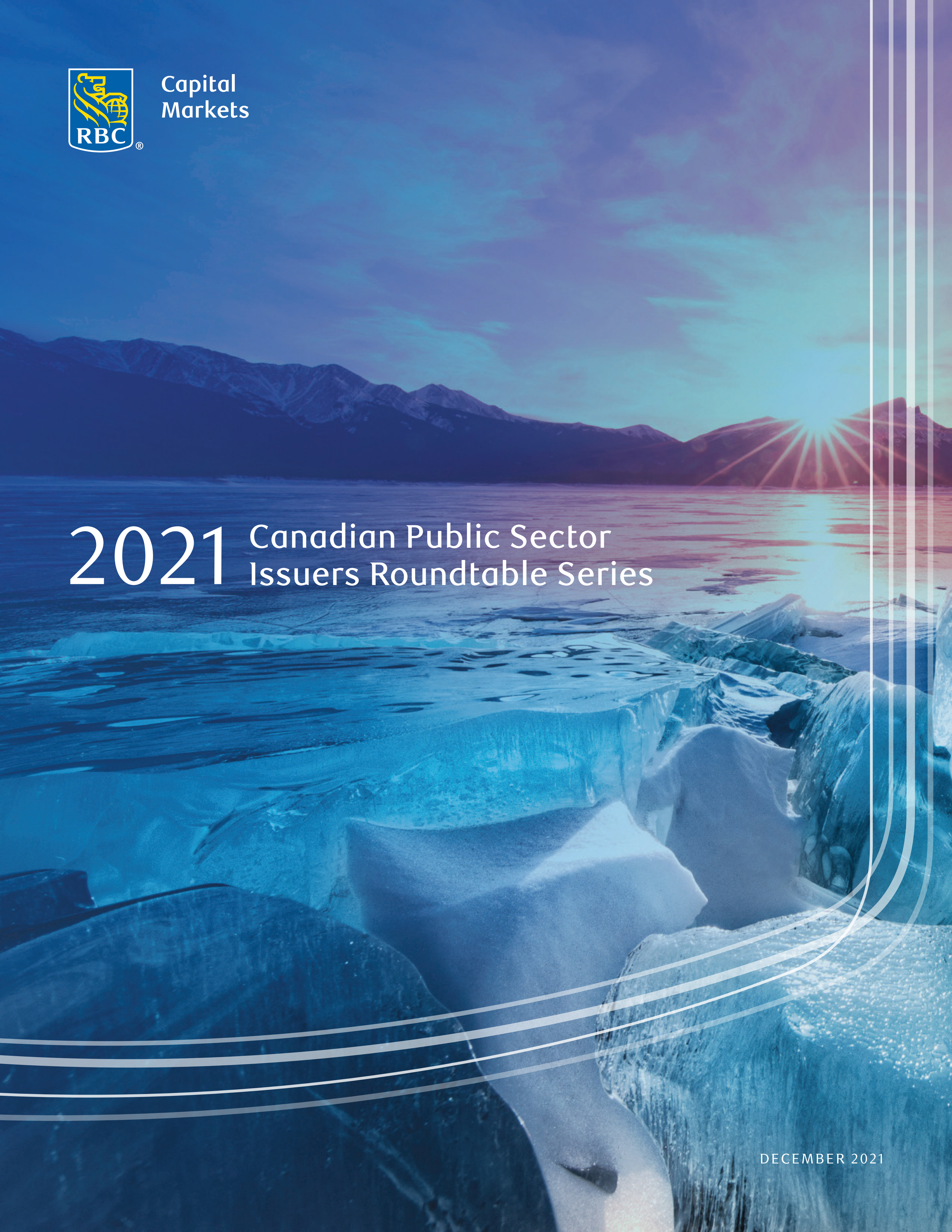

Capital Markets

2021 Canadian Public Sector Issuers Roundtable Series

DECEMBER 2021

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FORWARD

RBC Capital Markets Government Finance team was pleased to facilitate three separate virtual Canadian Public Sector Debt Issuance roundtable discussions in late November and early December 2021. Similar to past years, participants included representatives from the Canadian Federal Government, federal agencies, provincial issuers, non-agent crown issuers, municipal issuers, offshore SSA maple issuers, and institutional investors. The discussions focused on the current economic environment in Canada, trends in borrowing by public sector issuers in 2021 and expectations for 2022, and ESG themes as these market participants continue to navigate the Covid-19 pandemic and the challenges associated with the emergence of new variants. This publication summarizes these conversations along with key insights and takeaways from issuers and investors in the Canadian public sector. We thank all the participants who dedicated the time to share their views and experiences.

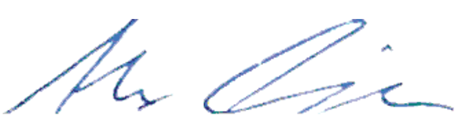
2021 saw markets continue to recover from exceptionally high pandemic related debt issuance the prior year and, whilst we saw markets rally across most asset classes, the year did pose a unique set of circumstances for most issuers. The Canadian Public Sector Debt market saw another year of elevated volumes, with aggregate domestic issuance reaching C$139.7 billion. Though this figure is below the record C$180.4 billion seen in 2020, it remains well above historical levels which had averaged ~C$109 billion annually over the past decade. The continued strength in domestic public sector activity stemmed from heightened borrowing needs for provincial issuers as they continued to combat fiscal uncertainty alongside the Covid-19 pandemic. Provincial issuers raised C$81.7 billion in the domestic market in 2021, down from the C$109.2 billion seen in 2020. Notably most provincial issuers saw deficit projections reduce faster than forecast at the beginning of 2020 and consequently funding volumes also came in lower than forecast early in the year. The Maple SSA market had a record year for issuance, with C$9.9 billion completed, up 41% from 2020. The Canadian Municipal sector reached a fresh record high, with C$5.9 billion of issuance (excluding Quebec unrated municipal issuance) continuing the upward trend in municipal borrowing seen in recent years. Canadian SSA issuers also remained highly active in 2021, though these issuers completed the majority of their C$44.3 billion equivalent of funding in offshore markets. Issuance by non-agented crown pension managers accounted for 75% of the total Canadian SSA issuance in 2021.

ESG has continued to be a focal point for the public sector in 2021 with Green, Social and Sustainable Bond offerings totaling C$13.9 billion from provincial, SSA and municipal issuers across 19 transactions. This represented a record number of issuances that tops last year's high of 13. SSA Maple issuers accounted for C$8.9 billion of 2021 supply, provincial issuers accounted for C$4.5 billion, and municipal issuers completed C$575 million. Our global public sector capital markets teams continue to focus on the ESG market as a key growth area and we are proud to lead with a Green, Social, Sustainability, and Sustainability-Linked (GSSS) debt market share of 24.0% in Canada #1 ranking since the market was established in 2014, and an outsized number of structuring agent roles. We were pleased to host our 8th annual Sustainable Symposium in support of the space and continue to support thought leadership and structure developments via RBC's role as a member on ICMA Climate Transition Finance Working Group and is a Vice Chair of the Government of Canada's Transition Finance Technical Committee. In addition, RBC has a target to provide C$500 billion in sustainable finance by 2025, having achieved our initial target of $100 billion in just two years. As part of this effort, RBC's Treasury Services and Corporate Treasury groups have committed to support the space targeting notional holdings of C$8-10 billion of GSSS bonds in their high quality liquid assets credit portfolios by 2025.

RBC finished the year #1 in debt capital markets activity overall, reflecting our client-first approach, ability to leverage market insights to deliver differentiated advice, execution leadership and uniquely global breadth of our fixed income franchise.

Looking ahead to 2022, we expect new issue activity to remain robust and to continue to moderate from the pace seen over the prior two years. We anticipate that many public sector issuers will continue to unwind the aggressive funding measures taken in 2020 as revenue growth continues to recover and expense growth normalizes; resulting in lower overall borrowing activity from the Canadian public sector in 2022. Having said that, the emergence of further variants could pose a challenge to issuer's balance sheets and may result in elevated issuance for some time to come.

We look forward to continuing to partner and support you in navigating a market environment that is likely to be characterized by ongoing uncertainty. We thank you for your confidence in RBC and wish you continued success and good health in the year ahead.



Alex Caridia
Managing Director, Head of Global Public Sector Markets
Debt Capital Markets
RBC Capital Markets

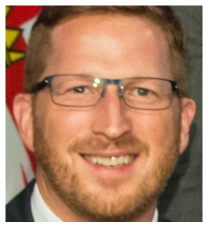
Public Sector Roundtable

ISSUER REPRESENTATIVES

Jim Hopkins
Assistant Deputy Minister Finance, Province of British Columbia

Renaud De Jaham
Vice President and Treasurer, PSP Investments

Sylvie Legros
Deputy Treasurer, Canada Mortgage and Housing Corporation (CMHC)



Jason Lewis
Director, Capital Markets, Province of British Columbia

Susan Love
Vice President & Treasurer, Export Development Canada (EDC)

Mike Manning
Executive Director and Chief Executive Officer, Capital Markets, Ontario Finance Authority

Nicolas Moreau
Director General, Funds Management Division, Financial Sector Policy Branch, Department of Finance, Canada

Nicoleta Oprea
Director, Capital Markets, Province of Manitoba

Guillaume Pichard
Managing Director, Capital Markets and Treasury, Ministry of Finance, Province of Quebec

Stephen Thompson
Executive Director, Capital Markets, Treasury Board and Finance, Province of Alberta

INVESTOR REPRESENTATIVES

Abid Dobani
Managing Director, Head Portfolio Management, Execution and Strategy – Corporate Treasury, RBC Capital Markets

Ryan Goulding, CFA
Fund Manager, Leith Wheeler

Dominic Siciliano
Principal Vice-President, Public Fixed Income, Industrial Alliance

RBC ECONOMIST

Dawn Desjardins
Deputy Chief Economist, RBC Capital Markets

MODERATORS

Alex Caridia
Managing Director and Head, Government Finance, RBC Capital Markets

Jigme Shingsar
Managing Director, US Debt Capital Markets, RBC Capital Markets

Kevin Martin
Director, RBC Government Finance

PUBLIC SECTOR KEY THEMES

1. **Strong Economic Momentum in 2021 but the Outlook Remains Uncertain for 2022:** Canada emerged from Covid-related lockdowns at the beginning of the year with pent-up consumer demand helping a recovery in nominal GDP growth and employment in 2021. The strong economic momentum resulted in an improvement in Provincial revenues through the year which allowed many provinces to revise their deficit estimates lower than originally forecast. Despite the strong rebound in activity, uncertainties remain with new Covid variants surfacing and caution is required for the economic outlook amidst elevated inflation concerns, tightening monetary policy among central banks globally, and an eventual reduction in direct support from the federal government.

2. **The Housing Market Remains Elevated:** The average home price in Canada rose by approximately 18% year-over-year in 2021. Low mortgage rates stimulated demand and a shift from buyers out of the large downtown centers into smaller cities exasperated the supply shortage in certain regional housing markets. Going forward, the expectation is that housing activity will moderate as mortgage rates move higher and demand levels begin to normalize to be more in line with supply.

3. **Debt Levels Expected to Recede:** Debt/GDP ratios for the Provinces began to stabilize in 2021 and are expected to gradually fall as each province moves to a more solid economic footing and their finances improve. It is not expected that higher interest rates over the near term would create any challenges from a debt servicing point of view. Debt service levels continue to be very low and that is expected to be the case over the next few years for the provinces and federal government.

4. **Increasing Focus on ESG Issues:** Canadian public sector issuers are seeing an increasing number of investors that are evaluating the issuers' overall ESG impact. While Ontario, Quebec and EDC continue to be the leading issuers of green bonds among governments in Canada, a number of public sector issuers are seeking to establish ESG frameworks. Many Provinces who have not yet issued an ESG bond emphasized that there are challenges related to the need to identify qualifying projects of sufficient size to support an ESG issuance program. The supply/demand imbalance in the ESG sector is not expected to be resolved over the near term, resulting in a continuation of premium pricing for ESG bonds.

5. **Higher Interest Rate Environment Unlikely to Change Public Sector Issuance Patterns:** Most provinces are forecasting higher interest rates over the next few years and are generally committed to responding to investor demand by continuing to focus on extending term by issuing in the 10-year and 30-year areas of the curve. There is a focus from many of the Provinces to reduce large liquidity buffers that were put in place at the beginning of the pandemic and to shift to a more normalized financing approach.

6. **Elevated Issuance Levels Expected to Normalize:** The Canadian public sector continued to see elevated issuance levels in 2021 relative to the pre-pandemic period, although lower than the record levels seen in 2020. Higher than expected tax revenues and pandemic-related support from the Federal Government helped to relieve fiscal pressure, driving deficit figures down during the year. The outlook for debt issuance by the Canadian public sector is expected to continue to moderate in 2022 as the economy continues to recover and governments navigate through the pandemic.

7. **International Market Open for Canadian Public Sector Issuers:** The funding conditions for Canadian issues in the international markets remain very robust. The extension of duration in key markets such as USD, EUR and AUD is appealing to many of the provinces who prefer to issue in the longer end of the curve. Among the provinces; Ontario, Quebec, Alberta, British Columbia and Manitoba view the USD as a core international market and will continue to look to this market for regular issuance opportunities.

MACRO ECONOMY/RATES

Alex Caridia (RBC): Welcome everyone. Dawn, what's RBC's view on the Canadian and provincial economic outlook for the next year?

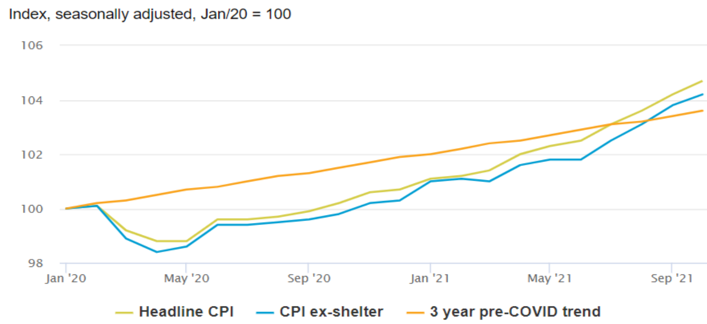
Dawn Desjardins (RBC): The national economy and the provincial economies, I'd say, we're relatively optimistic. We are still expecting the momentum in the economy to persist in 2022. There is obviously lots of uncertainty. Omicron just adding to the list of factors that creates this uncertainty in the economy, but we think there's a lot of really good momentum right now. We don't anticipate that we will see any large scale, long duration lockdowns in the near term. We think that the fact that we do have such a high vaccination rate in the advanced economies that we follow that will provide some insulation against having these broad based slowdowns.

For Canada, we did have a bumpy 2021. We had severe lockdowns and we did saw a contraction where we saw job losses but those have all been recovered. Certainly, in the 3rd quarter, data showed strong economic momentum. The pent up demand on the consumer side really drove that growth, and we think that momentum could accelerate as we go through the last quarter of this year. Despite the uncertainties with respect to the current variant that we're battling, on balance our assumption is that we will get through this. There will be some hiccups, but it won't be nearly as disruptive as previous lockdown periods.

> Omicron just adding to the list of factors that creates this uncertainty in the economy, but we think there's a lot of really good momentum right now.
>
> *Dawn Desjardins, RBC*

In terms of growth in 2021, we have penciled in +4.7%; in 2022 we think +4.3% for the national economy, again powered by the consumer. Lots of savings on the balance sheet. We do think the Bank of Canada will raise rates next year by 75 bps in total, but again, keeping policy stimulative, it will be below its neutral policy rate. We anticipate the labour market will continue to improve, but certainly demand is very, very hot with over a million job vacancies in the September employment report. There is lots of job growth, and the unemployment rate is creeping towards the pre-pandemic level. Inflation is accelerating so sharply - of course, not just as a Canada story - reflecting a myriad of factors. This year the economy is re-opening, while last year we weren't, and so we certainly have seen this as a contributing factor and we know it'll fade as 2022 goes on. Energy prices created upward push for price pressures and

CANADIAN PRICES (EX-SHELTER) PUSH ABOVE PRE-PANDEMIC LEVELS



Source: Statistics Canada, RBC Economics

I think that will ease. When we look at supply chains, those also have created some cost pressures and we expect that as we get past the worst of the impact from the virus and economies reopen more fully those pressures will also ease. The big question mark or the big headwind for inflation is what happens with wages. Because of the tightness in labour markets, we think inflation will remain above the Bank of Canada's target; moving back towards two and a half percent as 2022 proceeds. Regionally, when we think about what we've seen in 2021, and what we anticipate in terms of growth for 2022, it's all where the provincial economies are in the recovery cycle. We've seen many fully recover the loss output in 2021, with the exception of Ontario, Alberta, and Saskatchewan, and so we think these provinces will post stronger gains. As we go through 2022, they will be on the higher end of the growth scale, and then, as we get to 2023, all of these economies will now be hitting their capacity limit and start to move back towards what we would call trend growth. So I would say, overall, optimistic; but of course some caution with the forecast because of the new variant.

Alex Caridia (RBC): Thank you Dawn. That's a great introduction to start the conversation. Let's turn to some of the provincial issuers and their respective economic outlooks. Let's start with you, Mike. Do you have a comment on the outlook for Ontario?

Mike Manning (Ontario): I think most of the major economic indicators have recovered close to, or even above the pre-Covid levels. Employment has more than fully recovered; we've had 5 monthly employment increases in a row, so that's positive. In terms of real GDP, we're forecasting +4.3% for 2021, and with the year almost over, that number is probably pretty solid, and we're forecasting +4.5% growth for 2022, and then moderating thereafter. The recovery has been concentrated in household spending and exports, but residential investment and construction have been very strong as well.

> Most of the major economic indicators have recovered close to, or even above the pre-Covid 2019 levels.
>
> *Mike Manning, Province of Ontario*

Alex Caridia (RBC): Thanks Mike. Let's move to the Province of Quebec next and ask the same question on the outlook for growth.

Guillaume Pichard (Québec): Thanks Alex. 2021 is so far a great year in terms of growth in Québec. GDP is well above what we expected in March 2021. We expect this number to be at +6.5%, which higher than Canada and the US, and even one of the highest in the world. But more impressively is the increase in nominal GDP, which is at 10.8%. This is the highest increase ever recorded for this statistic in Québec. If you look at what that as an impact in terms of revenues, we just tabled our Fiscal Update and own-source revenues are up 10% from last year. This is a very strong increase, and the strongest increase we have seen in tax receipts is consumption taxes which has increased 13.6%. So it's clear what we're seeing in the economy is that the consumer is driving it right now, so we're very positive going forward. However, we do have a more conservative GDP growth forecast for the next year at +3.3%. We account for risk in the economy going forward, like labour scarcity, inflation and, of course, you can't rule Covid completely over just yet.

Alex Caridia (RBC): Thanks Guillaume. British Columbia has been in the headlines a lot recently with the unfortunate flooding that has occurred. Jim or Jason, do you have a comment on the Provincial outlook?

Jim Hopkins (British Columbia): Thanks Alex. The floods that we've gone through these last couple of weeks have yet to be factored into our outlook nor in our official forecast. It was recorded as a subsequent event in BC's November second quarterly report. But there's no question that there's an impact, and at the moment, it's too early to quantify. In fact, this file is still in motion – it's still raining in parts of the province. So, there is more to come on this story. We have not yet done a complete assessment and we're in no position yet to assess the damage. The next thing to do, once an assessment has been made, is assemble a recovery plan. Just like Dawn said, I think the likely impact on our economic outlook is about 0.2% or 0.3%. But let's hold that off until we produce our budget in February 2022. I think we'll have a better line of sight on that then.

With respect to the economy as we reported in our Q2 report a couple of weeks ago, we've observed strong growth up to this point. Retail sales, housing activity, exports, manufacturing shipments, our labour market have all been moving at a very strong pace. It hasn't been broadly experienced – there's some parts of the economy, in particularly the high contact parts of the economy that have not enjoyed the same growth. I would say it's notable that we had a smaller growth contraction in 2020, yet, notwithstanding the base adjustment, most forecasters are still expecting BC to be about the 3rd strongest in the country in 2021 and 2022. The economy is in good shape. There are some headwinds though. I will say, more recently we've seen Covid raise its head, and so we've delayed our step 4, which would fully open up the economy; so we're not there yet. Inflation is higher and more persistent than we expected.

I'll say, one last thing with respect to the floods. There is obviously an impact and there's going to be a bill to be paid fiscally for it and the federal government has kindly committed to bear some of that cost. There is also a double edge sword to these floods and it will bring on stream some very significant capital projects and put a lot of people to work. So there are some offsets to mitigate the negative impact of the floods but these of course pale against the personal hardships endured by British Columbians in the impacted regions.

Alex Caridia (RBC): Thank you Jim. Steve, Dawn mentioned that Alberta has a little bit of runway to go in terms of reaching pre-pandemic levels, do you have a comment on Alberta's outlook?

Stephen Thompson (Alberta): Thanks Alex. We're probably a little more optimistic, that is our nature in Alberta. From our perspective, the recovery appears to be well underway with activity picking up across the sectors and obviously led by energy. In terms of GDP growth, we've moved our forecast up from 4.8% in the budget to 6.1% for the current fiscal year. We do see it moderating, so 5.1% in 2022/2023 and then down to the 2.5% level in the forecast for 2024 and 2025. A lot of that growth will depend on demand and price levels.

> It's primarily an energy story in Alberta.
>
> *Stephen Thompson, Province of Alberta*

In terms of the energy sector, it is leading business output when we're taking about the economy. Production has increased 9% over the current fiscal year, currently at about 3.5 million barrels a day. Obviously, led by strong demand, high prices. We've seen better differentials as more takeaway capacity comes online. We have some fairly significant pipeline projects that are going ahead and that's certainly been very helpful.

The other thing on the energy sector that's helpful is income recovery. So incomes, were off about 63% at the start of the fiscal year, and we've recovered that and more. Incomes are now up 70% from the beginning of the fiscal year and that's led to increased capital investment intentions for the energy sector. But away from that, we're also seeing growth in the non-energy sector, including non-renewable energy projects, so we're expecting some more activity in that sector. It's primarily an energy story in Alberta, but most things that we talk about here are.

Alex Caridia (RBC): Thanks, Steve. Nicoleta, do you have any comments in terms of the economic outlook for Manitoba?

Nicoleta Oprea (Manitoba): Thank you, Alex. The latest economic forecast shows that the Manitoba economy will rebound with 4.6% growth in the current calendar year. Nominal GDP is forecasted to increase 10.1% this year. Performance of key economic indicators show a strong rebound in many sectors, including employment, household stats, and manufacturing sales. Year to date, manufacturing sales are up 14.1%; we have retail sales at 14.7%; wholesale trade is up about 6%. And what we're seeing is that a number of economic indicators are surpassing 2019 levels. So we're seeing really good progress. In terms of unemployment, Manitoba has recorded the lowest unemployment rate in the country at 5.3% in the month of October, as well as the lowest youth and female unemployment rate in the country.

The outlook remains volatile, and the 4th wave of Covid didn't hit Manitoba as hard as the 2nd and 3rd wave. But there is a lot of uncertainty, especially with this new variant of concern. We do have a very stable economy. It's the most stable in Canada, in terms of volatility and year over year economic growth, and this is due to the diversity in our industrial structure. So, while uncertainty still remains, these advantages are reflected in the resilience we see as we progress through the pandemic, and I believe that puts us in good position to deal with uncertainty that continues to exist.

PROVINCIAL DEFICITS & BORROWING PROGRAMS

Alex Caridia (RBC): Thanks very much Nicoleta. I'd like to move on to deficits for our next discussion topic. It's been a great story for most of the provinces in 2021. Dawn, do you have an RBC view on the federal and provincial deficit picture and where we see those going?

Dawn Desjardins (RBC): Certainly as mentioned, by everyone around the table, nominal GDP growth has been extraordinary and this has given a real bump to revenues for provinces, and for the federal government as well. So, we are seeing less red ink than we may otherwise have seen over the past few fiscal years. We do think that the economies will continue to perform, and inflation may run a little hotter than it has pre-pandemic, so nominal GDP as a result will also be running firmer, and that will underpin more growth in terms of revenues as we go forward. Now, we have seen some updates for some provinces, with some increasing their spending, trying to get their economies on a more solid footing, so our baseline view is that we will continue to see these deficits continue to decline. We will see, Debt/GDP ratios, which moved higher during the pandemic, start to stabilize and gradually fall down. As mentioned earlier, we are looking for the Bank of Canada to raise the policy rate, but, in terms of the magnitude, we don't really think it would create any challenges from the debt servicing point of view. Debt service levels continue to be very low and we anticipate that will continue to be the case over the next few years for the provinces and federal government. We are expecting a fiscal update from the federal government before the holidays and we are looking for some refinement in terms of how they see some of the programs that they are talking about proceeding. So that will be something we'll be watching for as we go forward.

Alex Caridia (RBC): Thanks Dawn. That's a great segue for me to bring Nic into the conversation from a federal government perspective. What is the overall view in terms of deficits and some of the programs Dawn just mentioned?

Nicolas Moreau (Canada): Thank you Alex. Finishing the fight against Covid remains the single best way to secure a strong economic recovery, for everyone. The government is prudently managing federal finances to help preserve fiscal firepower for future challenges and crises, and ensure that future generations are not burdened with Covid-related debt. Canada entered this crisis in a strong fiscal position, enabling the government to quickly put in place one of the most effective response plans in the world. The government's Covid economic response plan has helped Canadians and Canadian businesses get through the crisis and has laid the foundations for strong economic growth and job creation. Provincial and territorial pandemic responses have relied on strong and consistent support from the federal government. After over 21 months of unprecedented economic upheaval, 8 out of every 10 dollars to fight Covid and support Canadians has come from the federal government. This unprecedented support, including income and business support programs, has had a significant, positive effect on provincial and territorial revenues and overall balance sheets. Therefore, the Government of Canada's Covid economic response has been key in shaping this recovery as the Government's support measures have been highly effective in mitigating financial distress

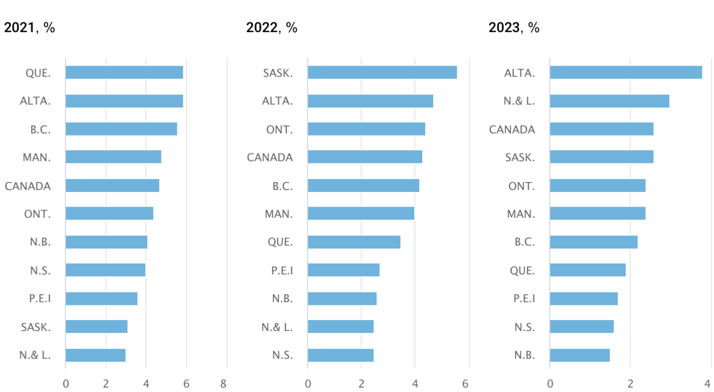
> We do think that the economies will continue to perform, and inflation may run a little hotter than it has pre-pandemic, so nominal GDP as a result will also be running firmer, and that will underpin more growth in terms of revenues as we go forward.
>
> *Dawn Desjardins, RBC*

among both Canadians and businesses, limiting long-term economic scarring by preventing an unnecessary increase in insolvencies that many had feared at the beginning of the crisis. By keeping Canadians' and businesses' finances largely intact, the supports laid the foundations for a strong rebound in the economy.

> The government is prudently managing federal finances to help preserve fiscal firepower for future challenges and crises, and ensure that future generations are not burdened with COVID-19-related debt.
>
> *Nicolas Moreau, Department of Finance Canada*

The Canadian economy is on the road to recovery but reopening the Canadian economy is proving to be a difficult task. While we are still estimating the impacts of the Omicron variant, a number of other factors are also complicating the recovery, a key one is the strains in global supply chains due to very strong demand for goods. These strains should diminish as people increasingly return to consuming in-person services. However, in the meantime, they are creating inflationary pressures and causing a high degree of uncertainty around the near-term outlook. Despite the factors delaying recovery, real GDP is expected to reach its pre-pandemic level by the first quarter of 2022. Real GDP growth should then remain solid at 4.2 per cent in 2022 and 2.8 per cent in 2023, stronger than expected in Budget 2021. As a result, the economy is set to reach a similar level of output by the end of 2022 as expected in Budget 2021. Based on a similar economic outlook, OECD projections suggest the recovery in Canada would be the second fastest (relative to pre-pandemic level of GDP) in the G7 by 2023.

REAL GDP GROWTH



Source: RBC Economics

Alex Caridia (RBC): Thanks very much, Nic. Susan, from an EDC perspective, we've heard a lot about more growth, inflation, and lower deficits. How has that impacted your business model in terms of lending to the Canadian exporting sector?

Susan Love (EDC): Well, in response to the pandemic, the Government of Canada expanded our mandate so we could help more Canadian companies, whether or not they exported. We have been working alongside our federal partners, like BDC, as well as Canadian financial institutions and insurance providers to help Canadian businesses weather the storm. While our 2030 strategy is aimed at increasing Canadian trade over the longer term, our domestic strategy is equally as important in the short term. EDC's success is really defined by the success of our customers and our impact on trade. Have we helped Canadian companies grow their trade revenue? Have we created more Canadian jobs or improved Canada's trade performance? Our business model and 2030 strategy aim to do this through advancing sustainable business practices and fostering inclusion, diversity, and equity. With the Covid pandemic magnifying economic inequalities in the world, we want to be an agent for change and help all segments of society take advantage of the opportunities flowing from trade.

> We're really optimistic that the economic activity that we see having started will continue and, combining that with our 2030 strategy, that will continue to gain traction and we'll have a positive impact on Canadian trade, our customers and ultimately, Canada.
>
> *Susan Love, EDC*

As you say, the rebound in economic activity in 2021 is an encouraging sign for Canadian businesses, and, based on that, we're forecasting a borrowing program of USD 10 to 12 billion in 2022, up from the USD 8 to 10 billion we forecast for 2021. There's no question the Canadian exporting sector will continue to face challenges associated with the pandemic, however, as EDC's 2030 strategy gains traction, we are optimistic this will have a positive impact on Canadian trade, our customers and ultimately, Canada.

Alex Caridia (RBC): Thanks Sue. Sylvie, can you comment on the impact the recovery has had on the Canadian housing sector?

Sylvie Legros (CMHC): We just released our housing outlook recently and CHMC continues to be concerned about the debt levels in Canada. One of the reasons that we see the economy to be

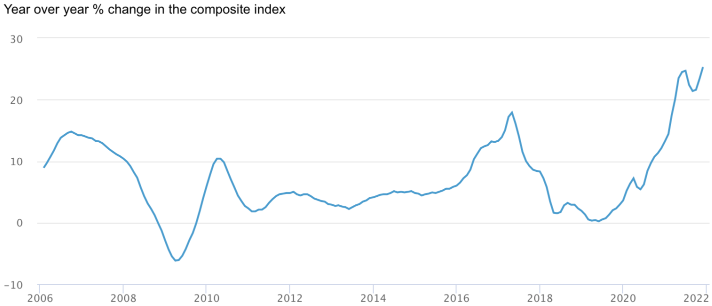
As long as the immigration continues, and employment remains healthy, particularly to the population that is open to home ownership, the housing shortage could persist and so prices could stay elevated for a while.

Sylvie Legros, CMHC

vulnerable is because most of this debt is not very well diversified. It's all in real estate, so if there is a shock, then households are vulnerable to that. So it's definitely a factor in the housing market, and we continue to worry about that. On the other side, we see that the mortgage arrears is now at 30 years low. So, during the crisis, borrowers were able to benefit from the payment deferral program, but then they were able to resume their regular payments at the end of the program, hence the concern we had of high default rate did not materialize. So on that part, the mortgage market is all about employment. And as Dawn mentioned before, there is a part of the labor market for skilled jobs that is very tight, so, maybe the sequence is that employment market is going to remain strong, but for the less skilled workers they are going to be kept out of the housing market.

On housing prices, we noticed that prices went way ahead of the economic recovery. It was not in step. The average home price in Canada is now C$716,000. Of course, the average might not be the best measure, because it's a wide range, but it's still about 18.2% higher year over year. So the low mortgage rates stimulated demand during the pandemic, but it was also triggered by an exodus from large city to urban areas, and home buyers were looking for single dwellings for a bit larger spaces to have a home office for example. That exacerbated the supply shortage in that part of the market, and that is likely why the housing prices went way ahead of the economic recovery. As a result now, we see some smaller markets like Ottawa, Hamilton and Halifax are in what we call the vulnerable zone. This varies quarter to quarter but we continue to see vulnerabilities in several smaller markets.

MLS HOME PRICE INDEX – CANADA



Source: Canadian Real Estate Association, RBC Economics

We don't really see an inventory surplus. In the end this year we expect housing price to go up maybe 3 to 4%, and we think demand is going to be reduced because of 3 reasons. One, it's the end of QE. Two, there is an expectation that there is going to be an increase in the policy interest rate; and three the spike in demand because of the exodus - we think that it has run its course. So, we think demand is going to be more in line with supply in 2022 and this would lead to a 3 to 4% increase in housing prices. . We continue to worry about the household debt level in the housing market and the housing prices. But in the end, as long as the immigration continues, and employment remains healthy, particularly to the population that is open to home ownership, the housing shortage could persist and so prices could stay elevated for a while.

Alex Caridia (RBC): Thanks Sylvie. Let's turn to some of the investors around the table. We've heard some very positive stories with perhaps a little bit of concern around debt levels and house prices. How does that make you feel in terms of investing in the public sector space in Canada right now? Has that changed your view on credit?

We're still very overweight public sector borrowers. If you look worldwide, you simply can't find any other issuers with such a good outlook and attractive yield levels.

Ryan Goulding, Leith Wheeler

Ryan Goulding (Leith Wheeler): Certainly, we generally remain quite positive especially in the public sector space in Canada. We did view the initial budgets as extremely conservative, which I think was kind of well-known in the market and the improvements we've seen with the recent updates have just been phenomenal. The ability of the issuers to continue to borrow; and continue to access the international markets through the last 2 years; and then having liquidity also to be extremely supportive in all provinces. We're still very overweight public sector borrowers. If you look worldwide, you simply can't find any other issuers with such a good outlook and attractive yield levels. So, we continue to be very positive on it and by no means are we cutting any exposures here, despite getting to tighter yield levels.

Alex Caridia (RBC): Thanks Ryan. Abid, comments on your side?

Abid Dobani (RBC Corporate Treasury): Yes, the way that we look at it is, above the normal trend growth we've seen about C$60 billion of excess supply from our provincial issuers this year. When you compare that to the approximately C$170 billion of new cash in the system since the pandemic, it's not a surprise to us that the sub-5 year sector has done so well, just because there's that much money to be put to work. When I think about the types of buyers in the sector, that's one thing we're keeping an eye on here. As Ryan alluded to, the absolute yield levels are definitely one thing, but the other aspect are the buyers on asset swap, or the international buyers looking at the currency, or even those who are just looking at provincials against their investment grade or high yield counterparts. That's something we're keeping our eye on a little bit because we're seeing the rotation where one investor category steps in when the other slows down. And we're very cognizant now that there are certain investor groups that are struggling to reach at these levels versus other investors who are very attracted, so that's an area that we are looking at.

Alex Caridia (RBC): Thanks Abid. Dominic any comments on your side?

Dominic Sicilano (Industrial Alliance): I echo what my colleagues just said. You know, the problems that we had in 2020 with the crisis and how well the financial system and financial infrastructure in Canada responded to those challenges; gives a lot of confidence for the market, whether it's domestic or international issuance, like they mentioned, it's been a good story. The credit story has been good. We've seen some really good fiscal management from the provinces at this level so we're also very constructive and comfortable with the credit picture.

INTEREST RATES

Alex Caridia (RBC): Thanks very much. Let's move on to interest rates. Dawn, from the RBC perspective, where do we see interest rates going?

Dawn Desjardins (RBC): Since we've seen this increase in inflation, and we do see full recovery of the national economy by the end of this year, we think we will probably get back to no output gap in the middle of 2022. So that's very much in line with what the Bank of Canada has said, and so their guidance suggesting that makes it sort of a live meeting if you will; we think in April is when they'll start the process of raising interest rates. Certainly, when we look at the economy, we don't really think that rates at the lower bound, aren't needed at this time. The Bank of Canada has already started to pull back on their nontraditional measures. We think that they will make that next step in April. Now, I'm going to caveat myself here and saying that this assumes no really significant pull back because of any of the variants of concern. So we think that if we are able to get our economy continuing to grow, that it will leave the door open to the Bank of Canada continuing to nudge those interest rates higher. We have them moving by 75 basis points in total this coming year, getting us to 1% and then as we go through 2023 we think they want to get closer to neutral, because at that point, we will be working in a situation where we are running-above our capacity. We have it at the lower end at 1.75%, at the lower end of what they deem to be their neutral band. Now yields are also moving up, but it really is a situation where we get this increase in inflation - it remains elevated compared to where it was, then it moves towards that 2% target in 2023. So we don't have rates at the long end moving up so significantly. By the end of 2023, we have 10s at 2.2%, and at the end of 2022, we have it at 1.9%. So 50 - 70 basis points higher, but not hundreds of basis points higher.

So we think that if we are able to get our economy continuing to grow, that it will leave the door open to the Bank of Canada continuing to nudge those interest rates higher. We have them moving by 75 basis points in total this coming year, getting us to 1%.

Dawn Desjardins, RBC

INTEREST RATES (%, END OF QUARTER)

				Forecast									Forecast		
	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	2021F	2022F	2023F
Canada															
Overnight	0.25	0.25	0.25	0.25	0.25	0.50	0.75	1.00	1.25	1.50	1.75	1.75	0.25	1.00	1.75
Three-month	0.09	0.15	0.12	0.20	0.25	0.55	0.80	1.05	1.30	1.55	1.75	1.75	0.20	1.05	1.75
Two-year	0.23	0.45	0.53	0.95	1.05	1.20	1.35	1.50	1.60	1.70	1.75	1.75	0.95	1.50	1.75
Five-year	0.99	0.98	1.11	1.25	1.35	1.45	1.55	1.65	1.75	1.85	1.90	1.95	1.25	1.65	1.95
10-year	1.56	1.39	1.51	1.60	1.70	1.80	1.85	1.90	2.00	2.10	2.15	2.20	1.60	1.90	2.20
30-year	1.99	1.84	1.99	2.00	2.05	2.10	2.15	2.20	2.25	2.30	2.30	2.30	2.00	2.20	2.30
Yield curve (10s-2s)	133	94	98	65	65	60	50	40	40	40	40	45	65	40	45.00
United States															
Fed funds*	0.13	0.13	0.13	0.13	0.13	0.13	0.38	0.63	0.88	1.13	1.38	1.63	0.13	0.63	1.63
Three-month	0.03	0.05	0.04	0.05	0.05	0.10	0.40	0.70	0.95	1.20	1.45	1.70	0.05	0.70	1.70
Two-year	0.16	0.25	0.28	0.60	0.75	1.00	1.20	1.35	1.55	1.75	1.90	2.00	0.60	1.35	2.00
Five-year	0.92	0.87	0.98	1.20	1.50	1.80	2.05	2.10	2.20	2.30	2.35	2.40	1.20	2.10	2.40
10-year	1.74	1.45	1.52	1.50	1.85	2.00	2.15	2.20	2.30	2.40	2.45	2.50	1.50	2.20	2.50
30-year	2.41	2.06	2.08	1.85	2.15	2.25	2.30	2.35	2.40	2.50	2.55	2.60	1.85	2.35	2.60
Yield curve (10s-2s)	158	120	124	90	110	100	95	85	75	65	55	50	90	85	50.00

Source: RBC Economics

Alex Caridia (RBC): Thanks Dawn. Renaud, has the prospect of higher rates impacted your thoughts around borrowing at all, and what is the plan going into 2022?

Renaud De Jaham (PSP): Not really for us, because we look at the debt capital markets program more strategically, long term for sustainability for PSP's business plan as a whole. So, we're not that tactical and we're not really worried about higher yields. The way we manage the program is more towards investor appetite; so the tenor we will choose when we come to the market will be mostly driven by the demand and the appetite of investors. So that's the main focus for us. It's really sustainability and sort of predictability also for investors. As you may know, we've started issuing in U. S. dollars; so our strategy in U. S. and in Canada in the domestic market is quite the same. It's really driven towards investor outreach much more than yields per se.

Alex Caridia (RBC): Thanks Renaud. Mike and Guillaume, from your perspective does the prospect of high rates push you further out the curve to try and get more long end funding while rates are still relatively low?

Mike Manning (Ontario): From Ontario's perspective, we are forecasting higher interest rates. We're looking at interest rates going up 50 basis points next year and 80 basis points the following year. The impact of 1 percentage point change in interest rates is about C$700 million for us in the first year, so there is an impact. It's not huge, but there is definite impact. We're not at the stage where we have to move down the yield curve to reduce our interest costs. So, we're still comfortable from a longer term point of view. I think interest rates are still historically low, so we're still inclined to extend term rather than move down the curve.

> The level of interest rates we've had in 2020, let's be honest, it was fun while it lasted. I don't think anyone around the table here would think they could borrow for 30-years under 2% yield indefinitely.
>
> *Guillaume Pichard, Province of Québec*

Guillaume Pichard (Québec): Similar to what Mike said, we've accounted for higher rates in our financial framework already. The level of interest rates we've had in 2020, let's be honest, it was fun while it lasted. I don't think anyone around the table here would think they could borrow for 30-years under 2% yield indefinitely. It is something that is on our radar but with Canada 10-years under 1.50%, now, these are still very low rates. We're still in a very low rates environment, so does it play a role in the allocation of our debt issuance? Well no, not really. We really follow where demand is, and issue where we think we can sell good issues. We're always thinking about the next issue. So, this year, we've been fortunate to issue a lot of long-term bonds in Canada. The average maturity of what we've issued is 18 years. But I don't think we'll go down the curve just yet to save a bit on interest rate. That's not the way we want to operate.

Alex Caridia (RBC): That makes sense. For the investors in the room, how do you position your portfolio? Obviously, stimulus is being withdrawn as rates are going up. The other side of that coin is, as we've heard a very positive backdrop in some of the credits, how do you look at and position the book in a rising rate environment? Abid, can we start with you?

Abid Dobani (RBC Corporate Treasury): Sure, what we're looking at is the timing and the potential log jam. So as the Bank of Canada starts to hike and exit the Reinvestment programs, the net supply will grow from Government of Canada bonds. And there's a larger role for issuance now from our provincial partners. But at the same time, corporates have also been borrowing a lot more than previously and they have to roll those over. So what we're doing is we're just keeping an eye here to see what the asset swap because that should in theory help negate some of the impact from excess Government of Canada issuance versus potentially wider provincial spreads. So, from our perspective, we don't see the asset swaps moving a lot. And from a duration perspective, we're fine with the part of the curve that we generally stay in – sub 7 years. We don't see any reason for this to continue to widen, because there's still so much excess stimulus in the system. Even after the Bank of Canada stops; once they start hiking, and even after they exit the reinvestment period, this historically has taken time to leave the system. So we think for the next year or so, at least, it's going to take some time before we see any sort of movement of the sub 7 year part of the curve. I'll leave it to my partners to see their thoughts on the other parts of the curve.

Alex Caridia (RBC): Thanks Abid. Ryan or Dominic?

Ryan Goulding (Leith Wheeler): We look at the hiking cycles more as curve moves than as outright interest rate moves, so, in terms of how we position this? Modest, very modest underweight duration, but really the move that we've had on for quite some time is a flattener. I think that this has been a faster cycle than any cycle. It's not a normal business cycle where it would usually take 3-4 years to flatten out. I think we're going to get this curve flatter far faster than we anticipate. And you know, this time next year, we'll be talking about curve inversions on 2s/10s. So that's how we positioned it. We've also gone into more non C$ products and increased our usage of our core plus, which allows us to do more floating rates product in the front end a little bit further down the credit spectrum as well.

Jason Lewis (British Columbia): I was going to just add in one other comment: I'm very sensitive, certainly to Ontario's point of view, but I also tend to lean a little bit more towards Guillaume's view on how it's probably going to drive particularly our plans. I think there's another element here, which provincial issuers are probably starting to generally look at, that's the unwinding of all the extra prudence and liquidity that we were baking in to programs over the last year or so, like funding a lot more in the short end. We're actively trying to issue more in the long end now to extend our maturities and reshape our maturity profile. We have extra cash on hand. Justifiably it is a good buffers for our cash management and positions us well for surprises. But at this point, I think it's prudent for us to get back to the pre-Covid track of focusing on 10-year and 30-year benchmark liquidity. If it happens that rates move higher in the face of inflation concerns and economic growth prospects, that could justifying in itself putting these emergency funding approaches aside. BC's funding is traditionally for capital requirements, too, and it's actually kind of a risk exposure for us to mismatch those longer-dated assets and funding liabilities.

> I think there's another element here, which provincial issuers are probably starting to generally look at, is that it's the unwinding of all the extra safety that we were baking in over the last year.
>
> *Jason Lewis, Province of British Columbia*

Alex Caridia (RBC): Thanks Jason, it's a good point. Steve, cash balances have been a concern for you. I'm wondering if you wanted to comment on what Jason said.

Stephen Thompson (Alberta): I completely agree with Jason on that one. From our perspective, our funding is not all for capital so we do have the opportunities in the front end of the curve and not have to worry about matching maturities. But if you look at our program this year it's a little inflated because it still assumes that we are maintaining those larger cash balances that we've been carrying for a couple of years. So, there is a potential actually that we reduce the program in terms of size, and certainly we don't have any rate sensitivity, not at forecast levels, when it comes to how we're running the program. Our focus even prior to the pandemic was to term out as much of this as we can, fully acknowledging that it's not going to be repaid any time soon. Even in the face of inflation here, we are not talking about rates out of context here historically, so, I don't see anything that is really going to impact our approach to the market at all.

Jim Hopkins (British Columbia): Thanks, maybe I could just add something, Alex, to what Stephen was saying, and that is that coming out of the pandemic, there's been a tremendous turnaround in the economy and our fiscal situations. I imagine this has been experienced broadly and that the cost of the debt burden has also been reduced relative to revenues. For example, in the case of British Columbia, we've had record lows in terms of the affordability of our debt burden with only 2.9 cents per dollar of revenue needed to service BC's taxpayer supported debt. So we are in a strong position to take on moderate increases in interest rates. The other thing I'd also say is that we have observed that when the Bank of Canada increase interest rates, there is not a 1 for 1 impact on provincial debt costs. For example when the Bank of Canada increased rates by about 125 basis points in 2017, the net impact to BC's weighted average cost of debt actually was only about 50 basis points. To add on to that, I expect provinces will have lower funding requirements going forward and that will also go to lowering the risk of a rising interest rate environment. I think the provinces generally, are in a good position to take on interest rate increases without impacting a well-functioning domestic market.

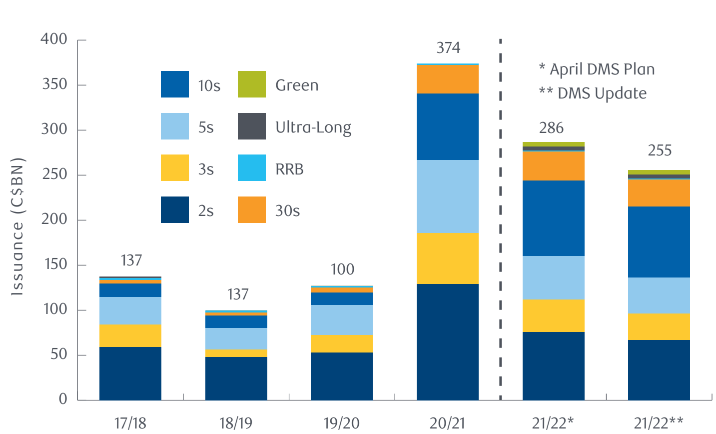
Alex Caridia (RBC): Thanks very much, Jim. I want to ask Nic what the federal view is on interest rates and also, has it impacted the borrowings strategy in terms of auction schedule, maturity terms, or anything like that?

Nicolas Moreau (Canada): For sure we're looking at where rates are going, but consistent with the direction laid out in 2021-22 Debt Management Strategy, this year's strategy continues to seek to maximize the financing of Covid-related debt through long-term issuance. This fiscally prudent approach provides security by lowering debt rollover and providing more predictable public debt charges.

As the fiscal outlook for 2021-22 has improved, this has resulted in lower financial requirement than the 2021-22 projection published in Budget 2021. Reflecting the lower financial requirements, the year-end treasury bills stock will be lower when compared to the levels outlined in the 2021-22 Debt Management Strategy and the bond program issuance for 2021-22 has been reduced. The reductions to the bond program issuance reflect a balanced approach that reduces all existing sectors, except for the Real Return Bond (RRB) and Ultra-long sectors. These adjustments were done to support market well-functioning across all sectors, while still maintaining the government's objective to maximize the financing of Covid related debt through long-term issuance, which remains at historic issuance levels.

Looking ahead, as Canada continues to recover from the pandemic and as Covid-related debt is termed out, the government will evaluate its debt policy objectives in parallel with developing the 2022-23 Debt Management Strategy, so that Canada's debt program continues to be managed prudently for the benefit of future generations.

GROSS BOND ISSUANCE LOWERED AS EXPECTED



Source: Department of Finance Canada, RBC Capital Markets

OIL MARKET

Alex Caridia (RBC): Thanks Nic. The next topic for discussion is the oil market. Dawn, from RBC's perspective, what is the view on oil and energy?

Dawn Desjardins (RBC): I think our analysts remain relatively constructive on oil, feeling that the very sharp reaction we've seen to this threat of the Omicron virus spread is overdone. So they still are relatively optimistic. We are looking for the market to be somewhat undersupplied in the 2nd half of 2022 and therefore, I think that gives some stability to prices. The latest forecast they had was averaging about $77/bbl, which does seem far from today. However a few weeks ago, it seemed far the other way. So definitely they do think that what they are tracking in terms of their real time data: lots of travel in the US over that Thanksgiving long weekend, although omicron threats have burbled up significantly. So they do think that we will continue to see prices higher than they are today as we go through the course of next year.

Alex Caridia (RBC): Thanks Dawn. Perhaps Steve you're the best person to go to next from the provinces here. What's the impact from energy prices on your budget and funding plans?

> We are looking at growing the economy in other areas, and we've had tremendous headways in diversifying the economy and into the non-energy sector; investment and government focus including things like renewable energy and ESG friendly types of investment.
>
> *Stephen Thompson, Province of Alberta*

Stephen Thompson (Alberta): Thanks. We wouldn't disagree with anything that Dawn said. If you looked at the budget, you can see that we do try to be a little conservative when it comes to the WTI forecasts particularly. And there are 2 components when we talked about the impact of global oil markets on Alberta. The most immediate and the most obvious is the impact on natural resource royalties, which directly feeds to Alberta's revenues. So, the deficit improved this year by about C$12.5 billion from the February budget - almost entirely a revenue story. We saw an increase in revenues by C$14.2 billion. Of that, C$8 billion is natural resource revenues that go directly to the province. And of that, C$7 billion is royalties on bitumen production. Those royalties are largely driven by WTI prices. So, that's why you see the volatility in the Alberta fiscal situation and, it's been very positive this year. It's been very negative in others. The longer term impact is on the corporate income tax and personal income taxes, because clearly the energy sector dominates the Alberta market. So, the impact on the fiscal situation from those drivers are further down. Those will moderate next year if we have a correction. All that to say, we're very positive on what we see for the next few years on oil. Predicting further than that is a fool's game. But price levels will have a dramatic effect every year on the fiscal situation in Alberta.

We are looking at growing the economy in other areas, and we've had tremendous headways in diversifying the economy and into the non-energy sector; investment and government focus including things like renewable energy and ESG friendly types of investment. The problem we still face after all these decades is that none of those things can match the scale of the energy sector in terms of their impact directly dollar for dollar on the fiscal balance in Alberta.

Alex Caridia (RBC): Yes, that makes sense. Sue, from EDC's perspective the joint statement that came out of COP 26 recently proposes an end to direct public finance of the international oil and gas sector by the end of 2022. This would seem to capture EDC within that. I'm wondering has that had an impact on your either your lending or your borrowing?

Susan Love (EDC): Earlier this year EDC announced that it would no longer provide new, direct financing to international fossil fuel companies, or their projects. That said, EDC will continue to work closely with our industry, financial and government partners to help Canadian companies transition to a lower carbon future. Given the joint statement coming out of COP 26, we're currently working with the Government to determine its scope and the best way for EDC to align with Canada's commitment in this space. As a result, I think it's still too early to tell what the impact will be on our lending book or on our funding program. I'm optimistic that our 2030 strategy, with its emphasis on helping midsized companies step into the global arena combined with our focus on high growth sectors, and doing this business all in a sustainable way, will be positive for our customers. If it's positive for our customers, then EDC's lending and borrowing programs should continue to grow in future years.

Alex Caridia (RBC): Thank you Sue. Dominic, are you seeing pressure from your investors to either take an exclusionary approach in terms of some of the companies you invest in that is heavily active in the natural resource sector?

Dominic Sicilano (Industrial Alliance): I think the exclusion is a simple answer and it's not one that we think is the appropriate action. I think we have to transition. We have to work with the existing companies. We've made this point in the past and those are the type of products, and I'm surprised and happy to see that the investors are understanding that we need to help some of the polluters move towards renewable energy.

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>
> *Dominic Sicilano, Industrial Alliance*

You'll see that most of them are really engaging in this practice. So that's been a very positive thing. So, let's get them from the level of emissions that are unacceptable down to 0 in a timeframe and I think that's how its a win-win for everyone. We have to transition our economy.

Alex Caridia (RBC): Thank you. Ryan, do you have a similar view?

Ryan Goulding (Leith Wheeler): We have had a very small amount of our clients put an exclusionary type of changes to their prospectus, but what we have seen is an uptick of our clients wanting to know our level of engagement with credits that we do invest in. And so along the lines, what Dominic said there are investors that are much more interested in getting engaged than just excluding.

Abid Dobani (RBC Corporate Treasury): RBC as a Treasury is committed to have up to C$10 billion of our HQLA assets by 2025 to be sustainable in some form or another. To Dominic's point, I think this isn't a "at the expense of putting it into somewhere that may otherwise be considered dirty rather than the clean" aspect. The more that we can support those who are trying to go green in one way or another, the better, so that's the way that we're looking at it with a public commitment and then we are held accountable to it.

Alex Caridia (RBC): And we'll try and help you find that C$10 billion number Abid.

Abid Dobani (RBC Corporate Treasury): I'm not worried about that, Alex, you know how to spend the money!

ESG & GREEN BOND MARKET

Alex Caridia (RBC): This is a great segue into the green bond and ESG discussion. To give a bit of backdrop, maybe both domestically and internationally and starting domestically with you Kevin, what have we seen in green so far this year?

Kevin Martin (RBC): Yes, certainly from the investor side, it's clear that an increasing number of investors are evaluating issuers' ESG impact. At the beginning of 2020, U.S. assets under management that engaged in ESG investment strategies grew to $17.1 trillion, experiencing a 42% growth compared to the beginning of 2018. According to the Responsible Investment Association, responsible investment assets now account for almost two thirds of total Canadian assets under management. RBC recently completed a survey of U.S. institutional investors on their ESG investing habits and preferences and we found that 83% of investment grade investors surveyed expected ESG dedicated mandates to grow over the next 12-18 months. So I think that highlights the growing importance of ESG in fundamental credit analysis by many investors.

From the supply side perspective, Ontario and Quebec are leading the way for green bond issuance among the Provinces. In 2021 they issued an aggregate $4.5 billion over 3 transactions that's an 80% increase in the notional amount of green issuance by these 2 provinces over 2020 ($2.5 billion). So Ontario and Quebec are doing their part to fill the demand that's coming in.

Alex Caridia (RBC): Thanks Kevin. Jigme, what about from an international perspective?

Jigme Shingsar (RBC): Yes, from an international perspective, it's pretty much as Kevin has outlined. Growth of ESG, or at least having a component of evaluation is growing. I think one of the most popular job postings these days is probably an ESG specialist and you're seeing more investors add ESG infrastructure. And with that infrastructure, they're able to dig a little bit deeper with regard to people's frameworks and so on. So, investors are certainly evolving very quickly, moving beyond just looking at the label to now dig deeper and ask more questions. So we expect that trend to continue and I think if anything, the sector remains under supplied relative to the growth of demand. Now this is a comment on ESG globally, but it's obviously the case in Canada as well. For Canada, it's provided an opportunity for some of the offshore issuers to come in with ESG labeled product, just to fill a bit of a gap. Because I think demand for this in the Canadian market is also far above supply.

Kevin Martin (RBC): Yes that's a good point. There was C$9.4 billion in ESG issuance by foreign SSA issuers in the Maple market in 2021 alone. So certainly to Jigme's point, international SSA issuers are coming into help fill that demand.

Alex Caridia (RBC): Yes, and it's a good point around the undersupply. Perhaps I'll bring some of the issuers that haven't issued green yet before going to, as Kevin mentioned, Ontario and Quebec, as the pioneers of the provincial green bond market here in Canada. Renaud, ESG is a big topic and there is hardly a meeting that goes by with either an investor or an issuer where this doesn't come up. What is PSP's view?

Renaud De Jaham (PSP): I would start first by saying that as many of you alluded, there is more and more pressure for issuers. Questions with regards to ESG matters and ESG practices within the organizations and even if you don't issue green bonds, you have to be conscious of this, that investors more and more are evaluating new issuers from the ESG perspective. So, this is something we should not deny. At PSP, one of the pillars of the strategies is to move towards sustainable investments, and we expect increasing our investments in the green sectors over the next few years. So obviously, from a financing perspective, it makes plenty of sense to have another tool in the toolbox of the issuer being sustainability bonds, green bonds, and as we speak, at PSP we are working on our green bond framework, and hopefully launch our first green bond in 2022. That could be probably in Q1 of 2022.

Alex Caridia (RBC): That's great. I'm very pleased to hear it. Nicoleta, what is Manitoba's view on green bonds?

Nicoleta Oprea (Manitoba): I echo your comments, Alex. Every conversation we've had with investors this past year, green bond issuance does come up; and also not only green bond issuance, but what is the province doing to contribute to a greener environment? For Manitoba, we're at the preliminary stages of establishing a green bond program. We're finding it very challenging to find projects that are large enough to not only establish the program, but to continue the program going forward. We are currently working with our climate and green plan implementation office to determine if there are enough projects for green bond issuance and also looking at whether or not we need to look at establishing not just green bond, but an ESG program. So, as I said, very preliminary stages and we're going to continue to work on this, but I don't expect Manitoba to have a green bond or ESG framework in the very near future.

> We're finding it very challenging to find projects that are large enough to not only establish the program, but to continue the program going forward.
>
> *Nicoleta Opera, Province of Manitoba*

Alex Caridia (RBC): Thank you Nicoleta. Talking about setting up an ESG framework, Steve, do you think there's an opportunity for Alberta to, maybe not issue green, but to issue sustainability or social bonds in the future?

Stephen Thompson (Alberta): Certainly, it is a growing and important market. We have not set up a framework and there are no specific plans to do any use of proceeds program of any kind. The focus in Alberta for ESG has been to try and coordinate and collaborate with the industry. The Government's role is to provide a policy and legislative framework in which innovation can come from industry. And if you look at the strides being made in Alberta, they're being made on the industry side. So we can talk about the Suncors of the world; if you want to talk about really significant, impactful GHG reductions, and greening of a very carbon intensive industry. We have set up, as an example, an ESG Secretariat as part of government during this fiscal year, and the mandate of that group is to really coordinate all of the different government programs and to align them such that we are a proper partner to industry in decarbonization and in moving to a greener future. In terms of the program itself, yes, we could easily set something up.

From my perspective on the capital front, I share Nicoleta's problem. I can't really scrape together a large enough capital project that's going to genuinely meet the need to have a proper use of proceeds program in place. But I'm not ruling it out. I firmly believe at some point, you'll see us in with a green bond. I don't think it will be transition. I think it will be pure green. That's just my best guess however.

Alex Caridia (RBC): Sylvie, in terms of CHMC, it's fairly well flagged that you're looking at social housing or sustainability financing opportunities. Can you comment?

Sylvie Legros (CMHC): Yes, of course we would like to issue an ESG with the CMB program. There is a group working at CHMC looking for the potential to develop a housing sustainability framework for both the NHA MBS program and the CMB program. So, the group works with external parties like mortgage issuers and we use our syndicate for advice. RBC is giving us advice on that project for example but it's fairly complex process. I guess it could be both social housing and green products in there. But at this point we don't have more specific details. We cannot provide any timeline for when we would be in a position to issue ESG CMBs. It's too early and there's a lot of work that needs to be done before that. But hopefully we will complete fairly soon as we want to be in the ESG space because it's part of CMHC's mandate.

One other initiative that we did recently was that we used the CMB program to help affordable housing, so we increased our 10 year benchmark issuance size from C$2 – C$2.5 billion to C$3.5 to C$4 billion in 2020, because the 10 year is related to multi-unit housings which is typically more affordable. As well, starting in 2021, we gave a preferential funding to mortgage pools that have at least 20% of their mortgages that were represented by eligible multi-unit loans insured by the CHMC, using the affordable flex products criteria, . So, we implemented this initiative with the first 10 year issuance that we did in 2021. It's been quite successful. The part of the ten year issuance that is comprised of these pools has increased steadily so far over the four issues that we've done since this was implemented. So, it's working very well and we continue to monitor to make sure there is no unintended consequences from this initiative.

On the other side, there is another thing we did as well at the corporate level – we created a group that is focused on the green side of the housing supply. For example, they provide advice to developers and they connect developers with agencies and other support systems that could help them to develop green buildings. Essentially, we try to find ways to use our programs, whether the CMB or other programs, to be active in the ESG space because the demand is definitely there, and it's an issue that needs to be addressed and CMHC should be part of it. We hope that eventually we're going to be able to have a social/affordable housing CMB bond but until then, we use our position and knowledge to provide solutions to these issues.

Alex Caridia (RBC): Thank you Sylvie. Nic, what are Canada's plans for issuing green bonds in 2022?

Nicolas Moreau (Canada): To support the government's historic investments in climate and environmental initiatives, the government announced in Budget 2021 its intention to issue the federal government's first ever green bond. Significant progress has been made in preparation for Canada's inaugural green bond issuance, including the establishment of an Interdepartmental Green Bond Committee to support the development of Canada's green bond framework and the ongoing success of the program, the engagement of structuring advisors to support the development of Canada's green bond program, and the appointment of Sustainalytics to undertake the Second-Party Opinion review process for Canada's green bond framework. The government plans to publish its green bond framework in the final quarter of 2021-22. Issuance of Canada's inaugural green bond is also planned by the end of 2021-22, subject to market conditions.

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>
> *Nicolas Moreau, Department of Finance Canada*

Alex Caridia (RBC): Thanks Nic. Jason, Jim, any comment on when we are going to see a BC green bond?

Jim Hopkins (British Columbia): Like everyone around this table said, whenever we go into meetings with investors, we are asked about ESG and how we are aligned to ESG values. We appreciate investors' interest and think in British Columbia there's a very strong story to be told and plenty of ESG credentials and favorable outcomes to point to. We think that framing out action through an ESG lens has the greatest prospect for contributing to a better quality of life and that is the objective which is shared by the provinces with investors. Our goal is continuous improvement through ESG outcomes and help investors understand how we are advancing the BC ESG agenda.

> ESG outcomes define success and governments should be held to account for their contributions.
>
> *Jim Hopkins, Province of British Columbia*

We think there's a better job to be done with the communication of BC'S ESG profile and we view that as important for our investor relations. The absence of ESG disclosure and reporting standards for governments is a challenge but does not reduce the importance of reporting to engage with investors. Reporting on ESG places a positive onus on governments to keep ESG top of mind and we want investors to understand our ESG credentials, judge them compelling and accept that buying or holding a BC bond is an investment in ESG. I'd say that BC has been successful in advancing ESG based on third party reviews. Just recently Moody's cited that ESG factors have no material impact on the province of British Columbia's credit rating and that's because they rank our risk exposure to E, S and G factors as relatively low to moderate. Same thing, MSCI also gave the province a high ESG rating.

The Government of BC is already required by statue to report annually on its climate agenda and provide transparency and accountability on progress. Expanding reporting on the Province's full ESG agenda will be a priority for BC. So please watch for more next year.

To your specific question we have no imminent plan for issuance of a green bond. We will never say that British Columbia is never going to issue a green bond or these labeled bonds. I would note that labelled bonds finance something that the jurisdiction is going to do anyway. So if it's a transit system or a water treatment plant, it's not the green bonds that produce a better environmental outcome; the same applies to a gender equity bond or facsimile. It's not the bond that does the work, rather it is a favourable ESG decision on the part of the government to, for example, build that transit system or to do good work for gender equity. ESG outcomes define success and governments should be held to account for their contributions.

The other thing I'll say, is that we have a borrowing program that is medium-sized and we've always been very mindful of liquidity. We would be cautious about how a green bond program might dilute liquidity in the rest of our portfolio, on which we know investors put a lot of value. These are just some current thoughts that we have with respect to actually printing a green bond Alex… but please know the province places value, first and foremost, on its ESG profile and accountability for ESG outcomes.

Guillaume Pichard (Québec): I think I understand very well BC, Manitoba, and other issuers who are coming in the green bond space. And look, we've been able to set up a program as you know, and we've issued 3.3 billion so far, but our biggest challenge is and will remain finding high quality, green infrastructure projects. We borrow for, and I'm speaking for Québec and most of the provinces; we borrow only for capital expenses in a normal time when we're balancing budgets. So we're not borrowing to finance fiscal measures and raise debt and label that green. Like, Jim said, the government is doing a lot of actions in Québec towards green, but a lot of these are fiscal measures and not green projects, so we can't fund these through green bonds. There's a lot of pressure from investors to show up with big green bond programs, and they want the highest quality possible out there. You've got to have these assets to finance as a province, and they have to be of high quality green. Just can't raise debt, and just label that green like there's no tomorrow, so just wanted to put that out there.

Alex Caridia (RBC): Thanks, Guillaume. That's a great perspective and a good point. Mike, from your perspective do you share a similar view?

Mike Manning (Ontario): Well, I think we recognize quite clearly that Ontario is fortunate to have the projects that we can draw upon for our Green Bond program. We have a lot of planned projects with extensive infrastructure spending expected over the coming decades which has given us the support for a very viable ongoing Green Bond program. We did a jumbo green bond of C$2.75 billion in July of this year. It was our 10th and our largest green bond, and it really exceeded even our wildest expectations, in terms of size. Given the success of that issue, I expect we will do another green bond before the end of the fiscal year. That's probably going to be in January or February. So we're just going to continue on with our Green Bond issuance program which remains an important component of the borrowing program and has been steadily growing since 2014.

> We're fortunate we have a lot of infrastructure that's going to be constructed over the next decades and it has given us the advantage of having a pretty viable green bond program.
>
> *Mike Manning, Province of Ontario*

Alex Caridia (RBC): Thanks Mike. I have a couple of questions for the investors on greenium and the like, but just before moving to those. I just want to make sure. Susan, is there anything you'd like to say on green bonds? I know that you have been in the Canadian market with 2 green bond issues a couple of years ago, when normally you don't fund domestically, so I'm wondering if there's any chance you might do that again in 2022?

Susan Love (EDC): Thanks Alex, we are definitely overdue in terms issuing a green bond. We issue in US and Canadian dollars and, as you say, our last 2 have been in Canadian dollars so I think, market conditions permitting, we'll probably issue in US dollars first. That said, the future is very bright with our new sustainable business model and we anticipate growth in our pool of eligible assets for a green bond so issuing a second domestically is certainly possible. It's also worth noting that recently, with the help of RBC actually, our Green Bond Framework is undergoing an upgrade to allow us to issue green, social, sustainable and transition bonds. The framework will be released early next year and will be more reflective of our new sustainable business model and the interests of investors. EDC issued in the Green Bond market when it was first developing but the markets have evolved beyond green. And that's why we're including transition in our new framework. I think it's important to keep in mind that we can't wait until we have it perfect. Issuers like EDC need to act responsibly in terms of developing this new market. If we want to develop the market beyond just green and look at transition, it's going to take some time, but you have to take the first step. Upgrading our framework will allow us to start down that path. You'll definitely see a green bond from us next year and, in the future, we hope to lead the way on the transition front.

Alex Caridia (RBC): Thanks Susan. I fully agree with that. Moving over to some of the investors. In Canada, we've seen premium pricing for green new issues ("greenium") for a while now. In some ways we are even leading the way, where new issues have come anywhere from 1 to 2 basis points through the non ESG or green curve. That is becoming more mainstream now. We've seen that in the UK market, where the UK DMO recently issued a £6 billion gilts at 2.5-3 basis points through the conventional gilts curve. We're seeing that in Europe with the EU recently doing an inaugural €12 billion green deal. And in Canada it's also evident in the secondary market now. If I look at the Ontario and Quebec green bonds, they are anywhere from 2 to 5 basis points through the non-green curve. I'm wondering, maybe starting with Dominic, how do you deal with wanting to support the sector and put money to work verses having an obligation to try and get best execution and price on an issue?

Dominic Sicilano (Industrial Alliance): I think it's a very interesting question. We get that from our clients often. I mean, you have to find a balance between what the appropriate spread that you're receiving for the product, for the risks that you're taking. And then, obviously, as a fund manager, you're trying to see is that going to be outperformance or not, so that's why in our ESG process, we try not to have an exclusion. You can't have a portfolio that's mandated by a specific account that wants to have exclusions because that's how they view the marketplace. The way we do it is that ESG is just one of the natural factors that you analyze on a day to day basis as a credit analyst. And then you're trying to figure out if the spread that these things are being priced that. Are you being compensated for that and is there room for that spread to come in? So that's how I think you make some RV in that type of trading, and the governance and social aspects are very important, even more important than the environmental aspect. Those are the things that you see the news recently with some large Canadian corporations that have had governance issues, those are the things that make us make decisions that actually help us step away from the landmines in the portfolio. If you notice the social and governance aspects of those companies on the credit analysis, then you can move forward and say, okay, this is something that I'm not being compensated for in the spread. So that's an example of the work that our team does.

Alex Caridia (RBC): Thanks Dominic. Ryan or Abid do you guys have a view on that?

Ryan Goulding (Leith Wheeler): There has been some excellent points that have been brought up. We don't have any specific mandates that require us to buy the green label bonds. So when there is a greenium there, there can be short term opportunities, but, I think what Dominic said there is excellent about how it's more about not buying the label, but actually doing the due diligence on each issuer and not the projects that they're carving out for a green bond specifically, but more overall what that issuer is doing and then also going beyond just the green part. Like the S and G also needs to be covered and paid attention to as well. So, in general, and I think Jim made a good point. We don't want to pay out unnecessarily too much for the reduced liquidity of some of these lines just in terms of outright deal size. So we look at it more, we talk to our clients more about the due diligence and the questions that we've been asking, and how the issuers are addressing both the E, S and the G, instead of just buying the buying the green bonds or whatever label bonds are out there.

> It is not free to go green. Greenium will probably be here for a while; something we have to deal with.
>
> *Abid Dobani, RBC Corporate Treasury*

Abid Dobani (RBC Corporate Treasury): I'm going to echo Ryan and Dominic's points. The way that we had actually pitched the green commitment that we had to publicly made, is that to management we explained to them it is not free to go green. Greenium will probably be here for a while; something we have to deal with. The concern that we run into is what almost every issuer here has highlighted is the lack of proper projects that this cash can be deployed to. And this is something we hear from issuers that we speak to globally in the green world. So, our concern is this orphan bond situation and orphan bond curve situation. So, once we get through 3 or 4 different green bonds, all of a sudden you start developing a curve. You can't roll over that curve. There is no active repo market. If cash can be deployed on these projects and it just sits in a general obligation at that point, then what do we do with it? Because we're a longer term holder, that's the concern that we have.

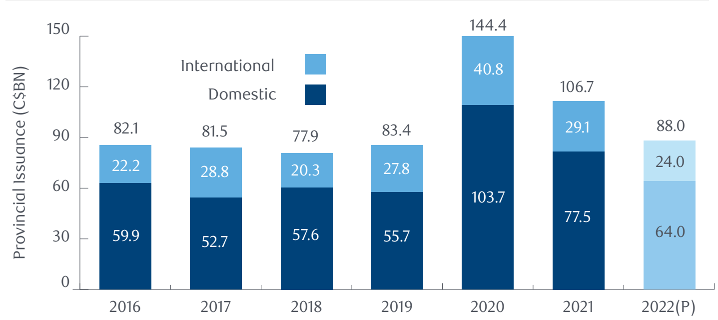
DOMESTIC & OFFSHORE FUNDING

Alex Caridia (RBC): Thanks Abid. Let's move on to the next discussion topic which is around funding in the domestic and offshore markets. Kevin, would you like to give us a quick overview of what we've seen in 2021?

Kevin Martin (RBC): Yes, absolutely. So far total issuance has been lower in 2021 vs. 2020, which is consistent with the comments we've heard around the table this afternoon, but still elevated from pre-pandemic levels. For the calendar year 2021, we've seen just over C$200 billion of total debt issuance across all Canadian public sector issuers. That's approximately C$50 billion or 20% less than the amount issued by the same group in 2020. However if you compare that against the pace of issuance in the pre-pandemic years it still represents an elevated year of issuance in 2021. For example, 2021 issuance levels are up 27% from 2019. So we're still at elevated levels, although not at the record levels seen in 2020.

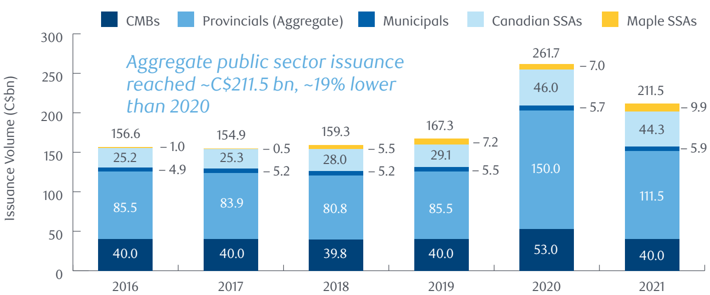
Issuance by the provinces accounted for over half of the total Canadian public sector issuance in 2021 with over $107 million issued in the calendar year-to-date. That is down 25% from 2020 but up 29%

ANNUAL PROVINCIAL DOMESTIC & OFFSHORE ISSUANCES



Source: RBC Capital Markets

AGGREGATE PUBLIC SECTOR TOTAL ISSUANCE (ALL CURRENCIES)



Source: RBC Capital Markets

from 2019. Pandemic-related expenses have eased and the provinces have received higher transfer and grant payments from the Federal government. This has helped relieve fiscal pressure and generally led to a reduction in deficits and borrowing requirements for most provinces.

If we drill down and look at the dynamics of provincial borrowing this year, it's consistent with what we've seen in past years in terms of international versus domestic. The provinces have issued 73% of their total borrowing requirements in the domestic Canadian market, which is in line with the traditional 70-80% range that we've seen in recent years.

Pandemic-related expenses have eased and the provinces have received higher transfer and grant payments from the Federal government. This has helped relieve fiscal pressure and generally led to a reduction in deficits and borrowing requirements for most provinces.

Kevin Martin, RBC

In 2021, 90% of the Provincial issuance in Canada was in the 10-year or 30-year maturities and that was evenly split 45% of total domestic issuance in 10's and 45% in 30's. Another interesting thing about 2021 is no floating rate notes issued by any of the provinces. You've got to go back over 20 years before you get a year where we've gone with no FRN issuance by the provinces. There's definitely new dynamics at play in the FRN market. There is a transition going on in the IBOR space, which I think has given investors and issues some sense of hesitation right now on FRNs.

It is also interesting to note that there was a sharp drop in ultra-long issuance by the provinces (that is maturities greater than 30-years). There were just 2 ultra-long issues done in 2021 for 185 million notional compared to over 3 billion ultra-long bonds issued in 12 deals by the provinces in 2020. I do think that makes sense if you look at what's happening in the long end of the Canada rates curve now, there is a positively sloped curve from 2051's out to 2064's; it's not inverted anymore, so the economics for the province to issue further out the curve don't make quite as much sense.

As we move into Q1 2022 and the traditional budget period for the Canadian provinces, we would expect the recovery trend to continue for provincial finances and improving fiscal picture. We believe this will lead to a normalization in the borrowing needs of the provinces back towards pre-pandemic levels. At RBC we're forecasting approx. $90 billion in total provincial issuance in 2022 (roughly 15% less than 2021).

Alex Caridia (RBC): Thanks very much. I'll give all of the issues a chance to comment on the funding program for the upcoming year. Let's start with Mike.

We're always monitoring foreign markets.

Mike Manning, Province of Ontario

Mike Manning (Ontario): Sure. I guess the big news this year is our borrowing program is quite a bit smaller. We're looking at C$42 billion versus C$59.8 billion last year, which was an all-time high. The domestic market has been a very receptive component. To-date we've done 28 domestic syndicated deals, and as Kevin said most of them have been 10s and longs, so that's been quite good. That's given us for that sector about C$22.25 billion. Last year there were 38 domestic syndicated deals for total of C$35.9 billion, so that's a big difference. I think the big change this year is the number of large order (carve-out) deals. This year we've had four carve-out orders totaling C$1.8 billion. Last year we had 14 carve out orders for C$6.6 billion. I think part of that was due to the disruptive markets that we had as we started into the pandemic.

Alex Caridia (RBC): Thanks Mike. Guillaume, can you touch on Quebec's experience please?

Guillaume Pichard (Québec): The market has been very receptive domestically. We've hit a small soft patch recently since rates started to be a bit more volatile, but nonetheless, this year, we've borrowed C$11 billion on the Canadian market. And, as I said, a bit earlier, our average duration for the year is18 years, and that's all due to the domestic market where we can issue long bonds. So there is strong demand for long products for every province. At our recent fiscal update, we revised our borrowing requirements and our program now stands at C$24.5 billion so we're 70% done. Very comfortable where we are right now versus the time of the year. I think there's still a few good weeks for issuance until the end of this year. And usually the first trimester of the year is very supportive of issuance. So we're in a good place.

> We don't want to issue FRNs under either CDOR or CORRA right now until there's certainty and we want investors to know what rate they are going to receive when they buy our debt.
>
> *Guillaume Pichard, Province of Québec*

Going forward, I think on the domestic side, it's going to be more of the same for us, finding the demand, issuing tens and longs. And to the fact that there's been no FRNs this year, on our part, it is due to the uncertainty surrounding the transition from CDOR to CORRA. We don't want to issue FRNs under either CDOR or CORRA right now until there's certainty and we want investors to know what rate they are going to receive when they buy our debt, which I think is common sense, so we're still on the sideline. And I do hope this issue will get more clarity in the future.

Alex Caridia (RBC): Thanks Guillaume. Steve, Alberta haven't been issuing in the domestic market for a while now.

Stephen Thompson (Alberta): We haven't been in any market for a while. It's been an interesting year obviously. We've taken about C$11 billion out of the program on fiscal improvements. But on top of that, we have had some cash wind falls on reclaiming some projects and some debt repayment from some of our loans to our municipal clients. That has really left us with a very strong cash position. So, if you look at the program, it might look like we're a little behind the curve on it, but we don't really rush to finish a program for March 31st. We are constantly managing the borrowing to the next 12 months needs based on our assessment of where things are going, and things have just really improved dramatically for us. So overall in the program, even with a significant decline like that, we take a scalable to approach the market, the way we always have, and in Canada that's focusing on 10s and longs as the best benchmarks for us. We will try to keep them liquid to the extent that we can. The market has not been, as Guillaume says, terribly receptive recently, but we really haven't been looking to issue. We'll continue to focus on those areas for certain funding projects coming up and we may come down the curve a little bit, but that won't be until the New Year. I wouldn't expect to see an Alberta bond in the market until at least January if not later, just based on where we're sitting on the cash front. That oil is just pumping away.

On the international front, we always say somewhere between 30 to 40% of the program. We do view U.S. dollars particularly, less so euros, as a core part of the program still, we haven't done an offshore deal in a while. So, there's a potential, early in the 1st quarter of 2022 that we look at that market. Because we're not under the pressures we have been in the past, we will be a little more aggressive when it comes to seeking out the most attractive financing levels. But that is, I think, a pretty common story across the board for others.

Alex Caridia (RBC): Thanks Steve. Jim or Jason, you have a comment on British Columbia's funding requirements?

Jason Lewis (British Columbia): Yes for sure, so we're unwinding some of our cash management strategies that were put in place to address uncertainties emerging through the early-Covid period; and so now it's addressing funding requirements alongside getting our cash balances and short-term refinancing exposures a little lower. We're relaxing that earlier target of keeping 3 months' funding ahead of pace. Certainly, if another episode come up again that requires emergency funding, we want to be well positioned and ahead of the curve, so to speak, so that we can feel comfortable to open up the safety valves again. We don't know what the future holds.

The February 2022 budget will be revealing for us in Provincial Treasury as well as to the Street, I'm sure. So it's prudent for us to get back on track with focusing on the liquidity of our domestic 10s and 30s, like we did in the pre-Covid era. As for FRNs, we have no focus in that space, not just because of the prospects for CORRA vs CDOR transition and such, but it doesn't typically suit our funding which is largely towards capital projects and cash flow management.

So, we started the fiscal year with the budget that had a C$19 billion program. It's now forecast to be around $10.5 billion, with a billion dollar forecast allowance provision, as per the recent Q2 report. We've completed around C$7.5 billion. So if there even is still C$3 billion left to borrow, we'll be focusing on 10s and 30s in the domestic market, and opportunistically for longer-dates in international markets when pricing is competitive to our domestic curve.

Alex Caridia (RBC): Thanks very much Jason. Sylvie, on the CMHC side I guess it's fairly programmatic. You went up in terms of issuance volumes in 2020, but it is back down to normal levels in 2021 and I guess not much change expected for 2022?

Sylvie Legros (CMHC): Yes, we're pretty boring in that respect, so, every year it's a C$40 billion issuance ceiling and we're expecting no change. Unless there is another crisis, like 2020 where we had our ceiling increased to C$60 billion. In 2021 we went back to C$40 billion. It's going to be the same areas of focus for us, where we are targeting a minimum threshold on international distribution and then the priority of issuance is focused on the 10 year fixed rate issues, and then the 5 year fixed rate issue. Because we're capped at C$40 billion in total issuance, we have to find room for the increase in 10 year fixed rate issuance, so we have reduced the amount of 5 year FRN issuance which is expected to remain smaller. Typically, we receive our authorization letter from the federal Department of Finance around mid-December. But we have no expectation that the ceiling of C$40 billion is going to change in the near future.

Alex Caridia (RBC): Thanks very much. Sue on your side I know you mentioned EDC's number earlier on in the discussion, is there anything else you'd like to mention on your funding program expectations next year?

Susan Love (EDC): We'd like to be more active than we've been this year, so it's comforting to hear some others around the table have been in the same situation as EDC, managing high levels of liquidity. With borrowing needs of USD 10 to 12 billion for next year, we plan to return to a more traditional funding program. We will look for opportunities to issue public transactions in US Dollars, Australian Dollars, New Zealand Dollars, Euros and Great British Pounds. As previously mentioned, we plan to issue at least one green bond. We are prepared for the transition from USD LIBOR to the risk-free-rate, SOFR (Secured Overnight Financing Rate). As such, we will also consider issuing a floating rate note using SOFR as the reference rate. The remaining funding for 2022 will come from private placements in US Dollars and emerging market currencies.

Alex Caridia (RBC): Thanks, Nicoleta on the Manitoba side?

Nicoleta Oprea (Manitoba): Borrowing requirements for the current year are expected to be at C$5.6 billion. That does include 6 months of pre-funding for the next fiscal year, So far of the current year requirements, we have funded about 87%, and have found the domestic market to be receptive to our new issues. And we'll continue to maintain a strong liquidity position. The focus of our program will continue to be the domestic market, looking at 5s, 10s, 30s. This year has been mostly 10s and 30s. We've left the 5 year area of the curve for US dollar issuance. We did go to the US, in 7s, and we were happy to be able to get it done. The focus is going to be both domestic and international issuance; as long as international issuance is competitive to domestic market.

Alex Caridia (RBC): Thank you Nicoleta. And Renaud, how has the PSP funding program evolved over the year?

Renaud De Jaham (PSP): This fiscal year, our program is roughly C$6 billion. We've issued only once in Canada where it was at the beginning of the year to focus more on the US GMTN program. So our borrowing programs are really dependent on the assets under management of PSP. This is growing pretty fast, so you can expect the program also to grow organically. So, for next fiscal year, you can expect us issuing roughly the same amount. Roughly C$6 billion. And the year after it, maybe C$6-7 billion, C$7-8 billion etc, it will certainly accelerate over time.

What we have done in the past, our focus was building a yield curve in Canada using the domestic market. This year, what we've done is focused more on the US market with 3, 5 and 7 year benchmark transactions, so we expect to complete this fiscal year to come once in the domestic market and eventually one non benchmark transaction. Eventually a floater in the US (SOFR), but this is to be analyzed internally. So for next fiscal year, there will be room definitely for us to issue 3s, 5s and 7s again in the US. So the idea for us is to maintain a presence there and to have some sort of stability and a disciplined approach in adding liquidity, and it's really important for us to do also benchmark sizes. Of course there will be room for a first Euro transaction, and definitely what we've said when we started the offshore programs, is that we really want to maintain that presence in Canada. So at least 1 issuance each year in Canada, if not two. So this is more or less what the program is. So roughly C$6 billion next year and C$6 to 7 billion thereafter.

Our borrowing programs are really dependent on the assets under management of PSP. This is growing pretty fast, so you can expect the program also to grow organically.

Renaud De Jaham, PSP

Alex Caridia (RBC): Thanks Renaud. The focus on international issues feeds really well into the next topic, both in terms of international issuances in other currencies but also international investors looking at Canada as a high yielding currency. And we've seen a lot of that across the various currencies, whether it's Euros or Aussie dollars, or the staple US dollar benchmarks. Jigme can you comment on overall international funding and trends?

Jigme Shingsar (RBC): Yes, funding conditions for Canadian issues in the international markets has been very robust. Like the overall market, we did see a spike issuance last year but issuance levels this year have normalized to just a couple billion above what it was in 2019. If anything the international markets would have been probably more undersupplied in Canadian product were not for the growth of issuance out of the crown agencies such as like PSP. This sort of mitigated some of the drop in overall volumes out of our traditional Canadian SSA issuers. But I think the main point is there's a lot of untapped capacity in the international markets for Canadian SSAs, and the range of opportunities continues to grow, whether it's the range of currencies or the choice of maturities. On the latter point, I think duration has opened up a little bit more in dollars and in Australian dollars over the last little while, and also starting to open up in the sterling and certainly very, very attractive in euros. So there's plenty of capacity - probably more than the provinces need. I think that also then increases the likelihood that there will be adequate price tension to make the levels competitive with some of the domestic markets. And over the last year or two we've seen the offshore markets become more competitive versus the domestic market, much more often than we would have seen in the previous two decades. So the main message is that the international markets will remain a competitive source of funding for the Canadians and generally speaking, offshore investors still view Canada in a very good light. If anything, international investors could end up being a little bit underweight Canadian issuers just because in just given that the pace of issuance out of Canada has not really kept pace with the growth of the SSA market overall.

> There's a lot of untapped capacity in the international markets for Canadian SSAs, and the range of opportunities continues to grow, whether it's the range of currencies or the choice of maturities.
>
> *Jigme Shingsar, RBC*

Alex Caridia (RBC): Thanks, Jigme. You make a good point on the on this sterling side of things. That's something which has been sporadic over the last few years for the provinces, but this year in particular we saw Ontario earlier in 2021 issue the joint largest sterling deal from any SSA, with the World Bank; at £1.75 billion. So maybe good segue to Mike. Can you comment on Ontario's offshore issuance activities and any interesting opportunities in other currencies that the province has looked at?

Mike Manning (Ontario): Yes, I think we were fortune in the last fiscal year to be able to do £2.75 billion sterling. We really have been toying with the idea of sterling being considered a core market for us. So that's a good sign. It's been a little bit disappointing we haven't had the follow through this year, but having said that, our program is a lot smaller and we're doing a lot less foreign borrowings so far this year. I think we've done C$7.2 billion of international borrowing, and that's versus a total of C$20.7 all of last year. So it's down quite a bit. We're always monitoring foreign markets. We did a 250 million Swiss franc 12-year deal earlier this year. We also did a $35 million Australian dollar 7-year issue, and this was our first Australian dollar deal in quite a while. We've also been using Euro private placements in the 20-25 year area, which is not a new market for us as we did some of that last year, but it looks like that market is now becoming more viable for both us and other provincial borrowers.

Alex Caridia (RBC): Thanks Mike. Steve, talking about sterling, we haven't seen you in that market for a little while now, but any, any comment on Alberta's offshore funding program?

Stephen Thompson (Alberta): Yes sure, as I said earlier, the USD market is definitely a core market for us. For other international currencies, it is more dependent on how the cost of financing looks relative to our domestic program. We have had some good Sterling issuances in the past. The one thing that I'd love to see, that we haven't seen in the past, is a little more duration out of these markets. So, you know Sterling as an example, if we get into a long dated Sterling deal at rates close to CAD, that would be very attractive to us and it and it's really the same in any market, I mean, you basically have a hard maturity cap on dollars at 10 years unless you're doing private placements.

So, for the core markets, I still see us as 25-30% of the program in dollars or euros interchangeably. We'll look at issuance opportunities in the other foreign currencies and evaluate them vs. our cost of financing in Canada. And those markets, have been good to us. We've done 10 currencies over the last 10 years at very competitive funding levels compared to our domestic program. It is something that we monitor constantly. We're happy to hear the reverse inquiries coming from these markets. The other thing that I love about those niche markets is does get you in front of investors that you may not have seen before, or that may be interested in delving into the credit, and maybe that will get some of those international players into the CAD space. So, we will continue to be very active in those markets. We will maintain all of our programs and we're ready to go when the right opportunity presents itself. I don't know if we're going to be adding anything new or not, but we have space to add maybe something in the short end in Europe, maybe a CP program or something like that. So, we, we will keep as many markets open for ourselves as possible. Just in case.

Alex Caridia (RBC): Thanks, Steve. Nicoleta, Manitoba recently issued in the Euro private placement market, can you comment on the province's offshore financing program?

Nicoleta Oprea (Manitoba): We were happy to be able to get the recent euro private placement done. It was a good size as well. Compared to last year, we've done a good amount of borrowing in international markets this year. However, it is still well below what we've done in the past. In previous years, we've done 30 to 40% in international markets. We would like to see that again. We'll continue to monitor international markets. Offshore private placements have been really good for us. We have been able to get those done at a competitive cost of financing and we're going to continue to look for opportunities in these markets.

Alex Caridia (RBC): Thanks Nicoleta. Guillaume, do you want to give us an overview on Quebec's plans offshore?

Guillaume Pichard (Québec): Sure, thanks Alex. We've done our biggest Euro issue this year, €2.5 billion 10-year issue. The strategy for us on the foreign markets is the same as we've done before, it's to be ready every day, any day to be able to pull the trigger on an opportunity that's there. Our core markets are Euro and USD. We returned to the Swiss market this year, we were able to pull the trigger on that one. We'd love to do a Sterling; we were very well received in this market with recent issues in 2017, 2018 and 2019. It's just the funding levels and demand has just been playing cat and mouse for a few years. So we'll continue to monitor. And the same goes for the Australian market, if there are opportunities there, we will look at them. Given the size of our borrowing program, we definitely need to diversify. We have our finger on it every day.

Alex Caridia (RBC): Thanks, Guillaume. Jason, can you give us an international funding update from the BC side?

Jason Lewis (British Columbia): We're constantly monitoring global markets. We're driven by the all-in financing levels achievable relative to our domestic Canadian funding costs. We have no set pricing target but are always happy to discuss opportunities. We were very pleased to have had two really successful global deals in the U. S. dollar market in 2021; our largest books and deal sizes, at 5-years and 10-years. We are looking forward to an opportunity to engage global investors in the Euro market some time, too, if that comparative cost advantage is favorable and stars align. Frankly, it could be any currency or format, not just global public issuance that we would be happy discussing. I'd add, too, that our Investor Relations activity this last year or so has picked up, too, certainly with the help of dealers like yourselves at RBC. We are more available ad hoc with virtual one-on-one meetings across the globe. It's a noticeable evolution through this Covid period.

Alex Caridia (RBC): Thanks Jason. Thank you everyone for taking the time for our discussion today. It was great to have the point of view from the provinces, the crown corporations, the federal government and investors around the same virtual table. We look forward to next year's discussion.

SSA Roundtable

PANELISTS

Maria Lomotan
Assistant Treasurer and Head of Funding, ADB

Andre Delgado
Lead Funding Officer, IADB

Randy Ewell
Financial Officer, World Bank

Aldo Romani
Head of Sustainability Funding, EIB

Piet Jurging
Vice President Funding, KfW

MODERATORS

Alex Caridia
Managing Director and Head, Government Finance, RBC Capital Markets

Jigme Shingsar
Managing Director, US Debt Capital Markets, RBC Capital Markets

SSA KEY THEMES

1 **Funding Programs Remain Robust But Off The Recent Highs of 2020:** Many SSA issuers saw their borrowing requirements decrease in 2021 after Covid related peaks in 2020, but total funding issuance was still above 2019 levels. SSA issuers continue to focus on their core markets in USD and EUR for benchmarks but remain keen to explore maintaining a presence in other key markets such as GBP, EUR, CAD and AUD whenever pricing levels permit.

2 **Maple SSA Issuance Reached an All-Time High:** The Maple SSA market had a record year of issuance with C$9.9 billion completed, up 41% on the back of a historical 2020. Besides the increase in total volumes, what has been notable is the strong growth of domestic Canadian demand for SSA product thus increasing the investor diversification this market offers. Issuers remain keen to increase their presence in this market including exploring a wider range of maturities.

3 **ESG Continues to be a Key Driver of Demand in CAD:** The focus on SRI from the Canadian investor base has been a strong factor behind the growth of the CAD market for SSAs. This strong interest in SRI/ESG is also apparent in the pricing dynamics in CAD where domestic green bonds have traded between 1 to 3 basis points through their non-green primary curve, and even as much as 2 to 6 basis points through their non-green secondary curve. Canadian investors' interest in ESG continues to broaden beyond green bonds into other themes such as Gender and Social as they take a holistic approach to understanding the ESG frameworks of SSA issuers.

FUNDING PROGRAMS

Jigme Shingsar (RBC): Aldo, any comments on your funding program for this year and whether it went to plan? Was it smaller or larger than expected?

Aldo Romani (EIB): At the time of this roundtable, the EIB has reached EUR55 billion in issuance for 2021. Compared to 2020, this is EUR15 billion less. From the point of view of the strategy, everything has gone according to plan. There is one aspect that can be highlighted, which is that we have now reached roughly 20% of our issuance in Sustainability formats. Thus, the jump that we saw last year has been consolidated and we now stand as the second largest in terms of funding within the EIB's teams. This is part of the strategy that I highlighted in 2020 as well. We would also like to highlight that we have gone on to lengthen the average maturity slightly as a relatively new aspect to our strategy. Most of this maturity lengthening has been achieved in Europe. In terms of Sustainability funding, the average maturity is~ 10 years. Also, we would like to highlight that the share of core currencies in this part of funding has decreased and more than 40% has been raised in non-core currencies. This demonstrates the increased interest of investors and local markets for this type of bond and the strategy that we have been pursuing.

Jigme Shingsar (RBC): Aldo, any comments on what you are looking forward to next year?

Aldo Romani (EIB): We believe that the current pattern is more or less going to continue. Europe is currently in the middle of a transition phase in regards to the upcoming 1st wave of taxonomy and this has a number of practical impacts in terms of assessing what is the state of things within an institution. Namely, the lending activities and their classification. As such, we are currently in this discovery process and this affects the decisions that would go into the implementation of our strategy next year. Going forward, we look to the 1st week of the year to gain a better understanding how we should proceed.

In certain markets, namely in the Canadian and Australian dollar markets, we have been quite large this year. Based on the interest that we have unveiled, we hope that the activity in these markets continues.

Jigme Shingsar (RBC): André, could you provide any insight on your funding program this year and your outlook, to this regard, for next year? Also, could you discuss if there is any notable new activity at the institution?

Andre Delgado (IADB): This year we completed our borrowing program with USD 24.3 billion issued, which is approximately 2 billion less than in 2020. It is important to notice, that 2020 was a record year for our borrowing program with USD 26.8 billion issued. We continue to diversify in various currencies, the US Dollar being our main currency of funding. This year we have issued four U.S. dollar benchmarks, which is in line with what we have been doing in recent years. Also, we have been active in other strategic currencies, notably the Australian dollar, Pound sterling, Canadian dollars, and New Zealand dollars.

For 2022, we expect the borrowing program to be between $20-24 billion. We expect the program's composition to remain similar with the U.S. dollar remaining the main currency. However, the second largest currency of issuance can change depending on market conditions. We will continue to further diversify with issuances in emerging market currencies, which we are open to become more active. Finally, in terms of new developments, we have created a SOFR curve that goes all the way to the 10-year maturity. We were historically active in FRN issuances until 2019 with 2020 being a transition year into FRN SOFR issuance. In 2021 we noticed that SOFR FRN allowed us to issue larger sizes and in longer maturities.

Jigme Shingsar (RBC): Maria, any comments on your funding program for this and next year? Furthermore, has there been any notable new developments?

Maria Lomotan (ADB): The funding program for 2021 was similar to that of 2020, which at over $35 billion, was a historical high for ADB. Diversity was a key outcome in 2021, in terms of funding across currencies and themes. ESG products were meaningful contributors to the funding program in 2021. We issued over US$5 billion in green, blue, health, education, gender and water themes. This is historically the highest we have ever issued in thematic bonds. Maiden issuances in 2021 included the blue and education bonds. We also issued gender bonds on a syndicated basis and did this in AUD, CAD, KZT, NZD and NOK. The US dollar benchmark anchors our funding program and this remained in 2021 albeit it accounted for less compared to 2020. Responding to meaningful demand, we issued our largest ever USD global benchmark at US$5 billion and on a dual-tranche basis, equally ADB's largest at US$5.5 billion.

> We issued over US$5 billion in green, blue, health, education, gender and water themes [in 2021]. This is historically the highest we have ever issued in thematic bonds.
>
> *Maria Lomotan, ADB*

For 2022, we expect the program to be relatively comparable in the range of US$34 to US$36 billion. We will continue to issue strategically in US dollars, pursue opportunities that will enable us to deepen and extend our curve in currencies such as AUD, CAD, EUR, GBP and NZD, and remain receptive to demand for ESG products.

Jigme Shingsar (RBC): Randy, any comments on how the funding program went this year and what are you expecting to do going forward?

Randy Ewell (World Bank): We are on a fiscal year basis going from July 1st to June 30, so that puts us nearly midway through our funding year. Last year, due to Covid we had our peak issuance year. In FY20 we issued 74 billion bonds. Last fiscal year we did nearly 68 billion and this hear it seems issuances will stabilize and we expect to do between US 50-55 billion. Currently, we are halfway through our needs as we are approaching the middle of our year. We have continued course as we would traditionally fund with regard to currency mix and products. We have been more active in SOFR and dollar benchmark issuances. The notable issuances so far this fiscal year was the 5 billion 10-year transaction as well as the 2 billion 25-year euro bond. We have also been active in Australian and New Zealand dollars recently. We should make clear that our funding team represent the funding program for both IBRD and IDA. In the case of IDA, the funding program is growing significantly having done 9.5 billion recorded last year and with 10+ billion expected to be done this year. The amount will be driven by disbursements. Going forward, we are eager to see the IDA funding program continue to grow, as with a strong rating it is has seen a good take-up by investors. Currently, our focus has been to build out liquid curves in the core currencies while also looking for opportunities for IDA in new markets and currencies. Notably, this year we added the Norwegian Krone for IDA, which now makes 5 currencies that IDA has done. We are looking for IDA to enter the Canadian dollars as well.

Jigme Shingsar (RBC): Piet, any comments on how the funding program went this year, did it go according to plan, and what are you expecting to do going forward?

> We doubled our green bond issuance to over 16 billion this year. This includes our first Canadian dollar green bond.
>
> *Piet Jurging, KFW*

Piet Jurging (KfW): It has been a fantastic year with a record refinancing volume of 82 billion euros. This is slightly higher than our original target of 75-80 billion. In terms of highlights, firstly, we doubled our green bond issuance to over 16 billion this year. This includes our first Canadian dollar green bond. Also, we expanded our Euro benchmark curve from 10-years to 15-years. Secondly, we had our first issuances in SOFR and SONIA this year. This makes us active in our three major currencies, which are Euros, Dollars and Sterling. We also strengthened the strategic position of the U.S dollar market which, after last year's decline due to the pandemic, we were able to issue 50% more in public U.S. dollar bonds. We would like to note that we were active every quarter with a larger size transaction, which is one of our main objectives for the U.S dollar market.

Jigme Shingsar (RBC): Piet, when you looked to fund all these different markets, how did you benchmark your funding activities? Are you considering the costs, the relative costs, diversification, or any other factors in your decisions?

Piet Jurging (KfW): We look to benchmark against our euro curve. For CAD we will have a look at the U.S. dollar reference as this could potentially attract U.S. dollar investors as well. In order to diversify away from Euros, there is a basic willingness to pay up a bit versus our Euro curve, in case we can do something in USD, CAD or other currencies.

Jigme Shingsar (RBC): Piet, would you then allocate Canadian dollars in the category of semi-strategic currencies? In other words, it is strategic enough that you will value its diversification qualities, but that it would not be used a pure arbitrage currency?

Piet Jurging (KfW): Indeed, our funding volumes in the Canadian dollar have been on-and-off for most of the years. However, as we reach out to different investor bases, here we have the chance to pay up slightly versus the euros.

Jigme Shingsar (RBC): André, considering you have been quite active in Canadian Dollars and that you are potentially expanding into other currencies, how are you benchmarking your funding activity? As an example, do you focus primarily the dollar curve, or do you get points for diversification or capacity management?

Andre Delgado (IADB): Indeed, we do benchmark our issuances versus the U.S. dollar curve, and we also look at what spread we are providing in terms of value for investors based on the local benchmark. In the Canadian dollar market, we increased our presence in 2021 as compared to 2020. IDB currently has CAD 5.1 billion in bonds outstanding in maturities up to 6 years. As mentioned, we monitor the spread versus the local benchmark, and our bonds offer a pickup relative to Canadian dollar government bonds and are repo eligible with Bank of Canada. Our most recent issuance was the CAD 750 million 5-year bond that was issued back in July last year. This bond met with a larger than expected investor demand, allowing the bank to issue its largest Canadian dollar denominated single-day global benchmark. We will continue to look for opportunities in the Canadian dollar market in 2022 aiming to providing value for the investors.

> We will continue to look for opportunities in the Canadian dollar market in 2022 aiming to providing value for the investors.
>
> *Andre Delgado, IADB*

Jigme Shingsar (RBC): Maria, considering you had a larger funding program over the last 2 years, how do you benchmark your funding activities globally?

Maria Lomotan (ADB): ADB is principally a US dollar-based funder so funding prospects are referenced on an after-swap basis vs USD and generally guided by levels in the USD global benchmark space where we can issue cost-efficiently in size and across tenor. Over the years, we have cultivated a following in certain non-USD currencies that have merited a strategic approach, in terms of issuance size, more points across the curve and so we have been relatively more flexible when looking at such opportunities, especially given the larger funding program. This has resulted in having more liquid and on-the-run issuances in AUD, GBP and NZD.

Jigme Shingsar (RBC): Maria, how was your return to the Canadian dollar market after a long absence? How was your experience and what are the implications for your plans to move forward in the currency?

Maria Lomotan (ADB): The last time ADB issued in CAD was in 2015 so the experience in 2021 after such an absence has been very positive and affirming. We had three outings and the issuances garnered over 100 investors with over half, domestic, who we have not generally seen in our mainstream currency issues. There was also strong reception to having the green and gender labels which were very gratifying, as they enabled issuance of larger volumes than perhaps would have been possible otherwise. The total size we raised in CAD in 2021 was CAD2.35 billion, eclipsing the total combined size issued by ADB prior to 2021, a testament to how much deeper the CAD market has evolved. We are hopeful that we will remain engaged and responsive to the CAD market and that it will be a meaningful contributor to our 2022 funding program.

Jigme Shingsar (RBC): Randy, with you being active in Canadian as well as across a range of different market, how do you benchmark your activities from a macro perspective? Also, would you have any needs anywhere and how has the Canadian market worked out for you this year?

Randy Ewell (World Bank): In terms of volume our funding program is predominately in US dollars. This is typically anywhere between 60-65% of our funding in a given year. That being said, we value the diversity of our funding sources, and we look to stay present in markets and look for opportunities to enter into new markets including very niche ones. This is partly because, where possible, we see supporting the development of some of these markets as part of our overall development mandate and mission as an institution. In the case of the Canadian dollar or any market, we do tend to benchmark to US dollar. We have been a regular issuer in Canada, made noticeable by this being our 10th consecutive fiscal year that we have been issuing in CAD dollars. Indeed, if you look as far back as 1984, we have been a regular issuer in CAD and 1984 was marked by us issuing the longest ever bond. This was a 99-year bond that matures in 2083. As such, we have a clear focus towards trying to extend the duration of our borrowings and to that extent can show some flexibility in pricing versus our benchmark curve when we see clear opportunities to extend duration.. Indeed, we see it as a prudent way to move forward, especially to match the other side of our balance sheet, where we lend out 20 years and more. For us, this is an appropriate way to manage refinancing risk whilst also maintaining a smooth redemption profile. With regards to CAD, we have been very committed to the Canadian dollar market and will continue to be going forward.

Jigme Shingsar (RBC): Aldo, you funded in a lot of different markets. You mentioned an increase in some of the local markets, particularly linked to your ESG focused issuance. How do benchmark all of these activities across the markets? How do you value diversification, duration, and so on? How does Canadas fit within that framework?

> Canadian dollars was our 6th currency overall, but our 4th currency with regards to Sustainability financing.
>
> *Aldo Romani, EIB*

Aldo Romani (EIB): We have 2 components that are strategic in nature. One is the fact that we have been urged to act as an ambassador for European Sustainability standards worldwide, so there is definitely an interest in the area of Sustainability that keeps us busy with the monitoring of these markets and development of the local investor base, who pays attention to these subjects. This was reflected in the Canadian dollar market this year, where we issued C$1.7 billion in total, and of this, C$1.6 billion was issued in ESG bond format. I believe that 43% was allocated to domestic investors. So clearly we have a strategic interest, and whenever there is an opportunity to issue, we go. This has been even more pronounced in Australian dollars, where we were quite large this year. I believe Canadian dollars was our 6th currency overall, but our 4th currency with regards to Sustainability financing. Australian dollars was our 4th currency overall, and our 3rd currency in Sustainability format. So we, like everyone else, benchmark what is possible in a market against what we can raise in another. However, there is an element of diversification which is stronger than elsewhere because of these aspects. So from that point of view, because it is part of the platform of sustainable finance, and as you know, there are very strong efforts in this direction, we definitely monitor these aspects with a lot of attention.

Jigme Shingsar (RBC): So you [Aldo] would look to extending that Canadian dollar success going forward?

Aldo Romani (EIB): Yes, let's say that we would like to do that as much as possible. Only the timing is of course tricky by the windows of opportunity and also in terms of financial attractiveness, and our desire to diversify our funding base as much as possible.

Jigme Shingsar (RBC): Thanks. Piet, we talked about how you benchmark your markets with regards to Canadian dollars. You've issued recently. Can you talk a little bit about that experience and how it fit into the program and what you think the prospects are for you to potentially come more frequently in Canadian dollars going forward?

Piet Jurging (KfW): Our last experience was quite good, as we had a domestic investor share of 40% and a green bond share close to 80%, so those are definitely 2 very good arguments to be active again in 2022. There is still a question on if it will be a green bond or not. This will all depend on our green loan program. So it's too early to tell if it's a green or not, but definitely very keen on issuing again in the Canadian dollar market for us next year.

Jigme Shingsar (RBC): So what's the main challenge in terms of being able to realize that ambition? Is it just the levels, or just overall demand?

Piet Jurging (KfW): Demand can definitely be an issue, so the green angle would definitely help in case we were to come again in Canadian dollars. Typically we want to issuer a larger sized, liquid bonds, meaning that the minimum size should be C$1 billion dollars because of that. I guess for the Canadian dollar market, it would be better to issue in green again. Definitely helps to bring it above this C$1 billion threshold. Last year had been actually a year in which we had more than one opportunity to come to the market level wise, but the competitors are usually quick to react to those nice levels as well. It's a competition and we just managed to be in the market just once. Hopefully, we will be quicker next year.

Jigme Shingsar (RBC): Randy, what are your main challenges in terms of the market? Is it, similar to what Piet said, that windows get crowded? Or is there still some sort of developmental aspect to the market that you are still working on?

Randy Ewell (World Bank): We feel that we've enjoyed a lot of success in the Canadian dollar market. I would note that, as you said, there was a lot of new supply last year that gave us fewer opportunities than we had previously enjoyed in the past. So clearly there is increased competition. So we have to be a little bit more nimble on our side and try to keep up with investor interest and working to take advantage of some of those windows when they present themselves. But we felt happy with the results of what we've done in the Canadian dollar market. So, no real issues to report. At the moment, it seems like some of the opportunities are a bit less. That's the case across a lot of non-dollar markets and we will continue to monitor that and look for opportunities to go in. For IDA as an issuer, Canadian dollar is something we want to approach in the not too distance future and add CAD as a new currency to IDA's funding mix. We've already done some fairly extensive outreach with investors to explain the strength of our balance and IDA's mission and we hope to have an opportunity soon.

Jigme Shingsar (RBC): Andre, in terms of frequency, you're right up there in terms of capital markets to access over the last 3 years. Any comments in terms of the challenges you faced or are you happy with what you've done?

Andre Delgado (IADB): I would say the main challenge for us has been the cross-basis into USD as we swap our issuances into US dollars. So, we rely on swap markets to be conducive for one side to allow us to issue something that makes sense to our funding strategy and on the other side to also offer value to investors.

Jigme Shingsar (RBC): Aldo, Any negatives in terms of your experience coming into Canadian dollars that would impact your issuance or do you think there's potential for more growth there for you?

Aldo Romani (EIB): I think there is potential, definitely, and this is a market that is quite well attended and by many people in competition with each other. I think we are very much focused towards a coherent development of our strategy in terms of clarifying how the proceeds of Sustainability bonds go; this in a way is a positive drive towards transparency which may develop our franchise further because in the end, if the market only has certain windows of opportunities, everyone's looking for them.

Jigme Shingsar (RBC): Maria, you came back in style with a very strong green bond and follow-on issuances. Do you feel that you can replicate that? Or did you notice something that would impact your ability to repeat that success?

Maria Lomotan (ADB): As mentioned previously, we need to look at levels on an after-swap basis vs USD so the basis remains an important factor in the replication of the 2021 achievements in the CAD market. That said, the strong outcomes in 2021 were primarily supported by having the green and gender labels. Thematic issuances appear to resonate to a wider investor base. ADB continues to have a robust pipeline of ESG-related projects so we remain open to such issuances. It would be interesting to see if larger issue sizes can be achieved without an ESG label.

Jigme Shingsar (RBC): Okay. So it sounds very much like there's a lot of interest in issuing from our borrowers, but windows can get crowded and it's a little bit about capacity. I'll bring Alex in the conversation with regards to the macro perspective and whether we think capacity going forward is growing, and whether there's more investor globally.

Alex Caridia (RBC): Yeah, sure, Thanks Jigme. Just to give some context on the market in terms of volume, it's been a great year for the maple market. We're sitting at just shy of C$10 Billion in terms of issuance, and that's coming from around, about C$7 billion last year. So, about a 30% increase. Volumes have been growing since 2018 now. Obviously, in the context of other markets like Euros or dollars, the maple market is tiny. The entire year's issuance in maples could be raised in the Euro market with 1 issuer doing 1 issue. Having said that, with public sector issuance in Canada at C$140-150 billion of C$10 billion of that in maple format becomes more significant. The other thing this year has been the increased diversity of names obviously, Maria, as you mentioned, this is your first foray into the maple market for quite some years, but there's also been some other new names that have either never issued or haven't for some time, so that's been a really pleasing development.

There's also been some other new names that have either never issued or haven't [issued in the CAD market] for some time, so that's been a really pleasing development.

Alex Caridia, RBC Capital Markets

In terms of domestic participation, it's also increased quite a lot. We're looking at anywhere from 50 to 60% domestic participation on a typical deal, which has come up over the last few years. Prior to that, a lot of the Canadian issues were really driven by foreign money, central banks and the likes, and while we're still seeing a fair amount of foreign participation, particularly as Jigme you were alluding to, Canada being a higher yielding currency; in fact, the highest yielding currency in the G7 right now, a lot of the central banks we speak to are overweight in terms of, their base 2% allocation,. We are also seeing a lot of demand out of Japan, both domestic and for some of the maple issues, usually on a currency hedged basis. So I guess the diversity in terms of domestic and international participation has been really pleasing.

As everybody on this call has alluded to, the focus on SRI from the Canadian investor basis has really been growing, and Canada has been slightly unusual in the sense that we've seen greenium in Canada, largely talking domestically now, for quite some years. If I look at the 2 provincial names that have been active in terms of issuing in green for quite some time in Canada, being Ontario and Quebec, in the secondary market, they've been trading anywhere from 2 to 6 basis points through their non-green in their secondary curve, and even in primary markets they're issuing anywhere from 1 to 3 basis points through. So that is a trend we haven't really seen in the U. S. dollars until recently, and I believe we haven't really seen that in Sterling either. So, I guess in some sense, some of those markets are catching up to Canada. It's been more the case in Euros for a little while, but, really, the domestic investor base has been growing quite dramatically. The last thing I'll mention in terms of the market is around liquidity. We've seen that the trading volumes in Canada have increase quite significantly over the last few years and bid-offer spread have also contracted. A few years ago, bid-offer spread in the maple market was anywhere from 3 to 5 basis points; we're probably talking 1-3 basis points now, so in the context of some other global markets, it's maybe a little bit on the higher side still but we've certainly come a long way. The one caveat of sorts is when the market turns more volatile as we've seen over the last month or so, liquidity tends to dry up quicker in maples than it does in other markets. And I've seen that over the last couple of weeks, there hasn't been much trading. Bid-offer spreads have widened more quickly than they have in other markets. But generally, I think the trend has been a positive one both in terms of domestic participation, international participation, liquidity, and volumes. It's all moving the right direction and hopefully, the market will continue to provide opportunities for the international issuer base going into next year.

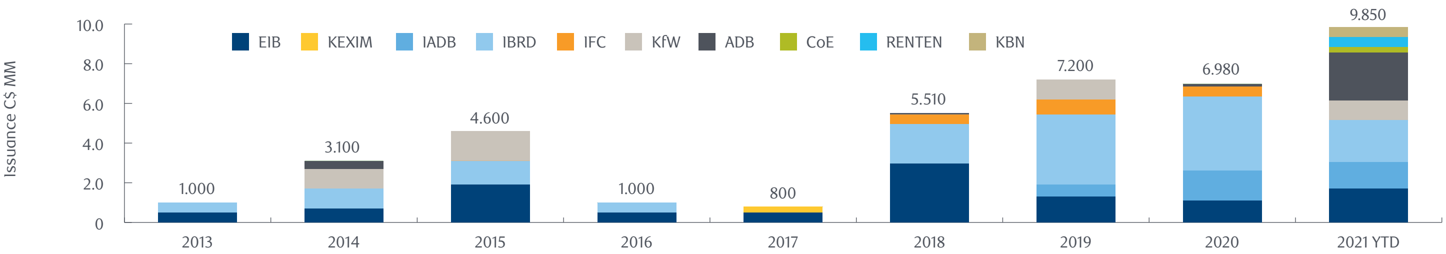
Jigme Shingsar (RBC): Just staying on the CAD theme, I mean, we're obviously focused on the Maple market, but just for the global CAD demand in general. I mean. Maria, for example, you've done some CAD private placements, again, with an SRI sort of focus, are you seeing more of that kind of inquiry generally?

Maria Lomotan (ADB): Yes- the interest in CAD has been demonstrated across formats but there remains a level of consistency in the preference to have thematic labels. We have issued CAD-denominated private placements over the past few years in gender and health. When such demand is coupled with syndicated maple trades, then CAD starts to be a meaningful contributor to our funding program.

Jigme Shingsar (RBC): Right, thanks. Randy, similar experience with you?

Randy Ewell (World Bank): As I mentioned, looking back at some of the stats, we've been fairly regular in issuing in Canadian dollar bonds. We've seen for some time fair bit of international interest. We haven't seen massive moves. You do get a bit of demand out of Asia and a lot of those are driven by SRI investors. We have noticed that highlighted awareness or themes can make a lot of difference and bring new investors and sometimes international investors. We've always more or less seen it but the interest has definitely grown.

ANNUAL MAPLE ISSUANCE



Source: RBC Capital Markets

Jigme Shingsar (RBC): Okay, thank you. Piet, just any comments on CAD demand in general and also, your experience with the investor base of whoever's bought your CAD issuance either in Maple format or otherwise, and whether you think that's a positive trend?

Piet Jurging (KfW): No, I guess I just have to repeat Alex's words. But at least when I'm looking at the Canadian dollar market, when I'm seeing, Canada housing, rising over 2% in 10s and with FX. The Canadian dollar is appreciating at least on a steady basis since the beginning of 2020. It's definitely a very interesting market and so it doesn't come as a surprise with the market growing by 30% to close to C$10 billion as Alex said. I think that speaks a definite language for the market.

Jigme Shingsar (RBC): Great, thank you. Andre, so who's been buying your issuance in CAD? Any friends there that you'd like to highlight?

Andre Delgado (IADB): Definitely a market that offers diversification on our side and, we are always happy to issue in Canadian dollars. We are happy and thankful for the reception we got from investors in CAD and going forward this is something to we are looking to maintain. I agree also with Alex comments, as it is a market that's going in the right direction for us, and we expect to continue to be active in 2022 in Canadian dollars.

ESG PROGRAMS

Jigme Shingsar (RBC): It so we've talked a lot about CAD and the obvious investor demand for supply in some sort of ESG or SRI format. I know that's just a big theme overall with all your institutions, and obviously it affects the way your institution behaves overall as well the composition of your finding program and ultimately your capacity to offer SRI bonds. Different institutions have thought about it in a different ways. So, why don't I start with Aldo since you're the pioneer of this market, with the first, climate awareness bond? I mean, it has certainly evolved from a project, or proof of concept to very much something that infuses the whole organization. What's changing and what's standing between you and being able to be pretty much do everything in sustainable format going forward?

Aldo Romani (EIB): This discussion of Sustainability is, of course, a discussion of many angles. In order to make the discussion more concrete, it is important to agree on what we can agree upon, and not only within Europe, but also across the various parts of the world. For this purpose, there is a process that is ongoing. We have to all monitor attentively. That is basically leading to some understanding as to what is really essential in Sustainability and what kind of core indicators can be used to measure the contribution of our activities to those objectives that can be shared. So, in this respect, in my view, there is a secular trend. The debates that have taken place systematically in Europe tells us clearly that not everything has been done so far, even if it has been labeled it as Sustainable.

Although, it is not absolutely clear what can be accepted as Sustainable and codified into legislation, for example. So, this is the core of this trend. I think that there is a lot of interest on all sides for the results of the process that is now to be taken to implementation in Europe. Very simply because there has been a systematic and transparent approach like the value institutions, such as the ones that are present in Europe, in creating the condition set for a high degree of accountability in this area. So the idea has developed a bit for this phenomenon because of its past experience from the very beginning. Also, it is the task of the European Union as it is expected to spearhead the application of the taxonomy and renewable standard.

Now, if you look at this from a concrete point of view, it is clear that not everything is straightforward. If you really address the substance, and there is a clarification process that is ongoing, we have put in place a very solid infrastructure. Infrastructure meaning an essentially operational framework and an external review that permits us a systematic approach; also communication - it is appreciated; and what the results of this process needs to be tested. It is a discovery process, as mentioned. However, I think that the quality of the dialogue with investors in these areas have been in a very systematic manner, and not only paying attention to labels. I think this is beneficial to everyone; I was mentioning before the common ground taxonomy, the report that the international platform system for finance has produced. A lot of ideas that had been retained were indeed addressed by us in 2017, by way of a series of consultations in the market that involved many people from the institutions also on this call. I think it is recognized, and that it could be good for everybody in the end. So, this is the essence of what I think is happening. I don't think that everything we issue will be sustainable. I think that some things simply will be recognized as not sustainable, but this will provide a further push in terms of a change that is badly needed in these areas in the promotion of financing what is available already that is sustainable and the promotion of what is not. I think it is quite interesting, also, that the frontier is moving now from clarifying what really contributes substantially to Sustainability, according to the criteria that has been put into place. And this, I think is a good step that the market is undertaking with the increased attention and increased awareness. And it is also positive for the development of the business overall.

Jigme Shingsar (RBC): Thank you. Piet, with KFW, green has become a big focus. In fact, Sustainability is big, big focus. I know the German government support for green has been a big driver of that. I remember when you were first considering green bond issuances and how quickly management focus grew on getting in front of this trend. So how does that impact your institution and your overall ability to provide ESG/SRI issuance generally?

> Every Euro or dollar that is invested in bonds contributes at least to 1 of the ESGs, so theoretically, we have a way higher capacity to issue even more green bonds.
>
> *Piet Jurging, KFW*

Piet Jurging (KfW): Yeah, okay so we started our green bond portfolio in 2014 and yes, 7 years later we reached a record funding volume of 16 Billion in this year, doubling from last year's records, so that's quite impressive. Just looking at KFW, more or less, the whole balance sheet potentially could be used for SRI insurances. So we have an environmental investment ratio of currently over 50%. Every Euro or dollar that is invested in bonds contributes at least to 1 of the SDGs, so theoretically, we have a way higher capacity to issue even more green bonds. However, we are just focusing on green bonds, so the framework is very straightforward. We could as well, issue in social bonds, but at least for KFW it is far more difficult when it comes to impact reporting. We get those questions quite a lot while we're not issuing other bonds besides green bonds, but as of now and at least for next year, we will stick to just a green bond framework.

Jigme Shingsar (RBC): Okay, but what you're saying is institutionally, your sustainability percentage or component is very high and, I guess growing still, so your future capacity to offer SRI type issuance is pretty good?

Piet Jurging (KfW): Definitely. We just have to make changes to our framework, but we will stick to green bonds at first, for next year.

Jigme Shingsar (RBC): Great. Thank you. Randy, World Bank is also a pioneer in the green bond market and recently made a transition to the sustainable development bond fromat. Any comments on that and how that reflects the changes permeating the institution, and what that means going forward?

> What we've done is try to help investors to understand our story of looking at things beyond simply green.
>
> *Randy Ewell, World Bank*

Randy Ewell (World Bank): I guess so. You may have seen that we've had initiative recently. IBRD issues sustainability bonds -- what we call sustainable development bonds, or green bonds. So anything that's not a green bond is a sustainable development bond. For both IBRD and IDA, the goal is the twin aim of eradicating extreme poverty and boosting shared prosperity. Effectively, our mission is a social mission. And while we were one of the pioneers in the green bond market, you sort of run up against the problem of where when you're not issuing a green bond, investors could have a misconception with regard to what else you may be funding through the capital markets. And clearly, we had to tell a larger story. In the end, climate affects everything and it's also a social issue in a way. All of these things for us, poverty alleviation, climate matters, is about people. We know that climate issues affect the poor disproportionately. In many case it's people living in less secure circumstances who are affected by natural disaster zones, or low lying areas more susceptible to flooding for example. The World Bank takes a holistic approach. What we've done is to try to help investors understand our story of looking at things beyond simply green, as critical as it is. Climate is really something that is hard to isolate. Climate plays into everything that we do. So when we go through and work with countries, we discuss the projects, and before approval 100% of our projects are screened for climate risk and they often include climate components or climate co-benefits. It's really something that's a part of everything that we do. Conceptually, we could do more green bonds and have and have them allocated appropriately. We have the projects but maintain about 2% of our annual funding portfolio to be funded by green bonds. We tend to do green bonds primarily on a reverse inquiry basis as private placements. Again, we have projects to allocate to, but have taken the decision tell the story of sustainability and include the social aspects including climate for a holistic approach About 95% of projects we financed last year included a climate component, and about a third of our lending portfolio includes climate financing. So effectively, 33% of our lending by dollars were directed to climate and that's the message we wanted to explain to investors with regard to the World Bank's holistic approach. And so we'll continue to tell the story of sustainable development bonds from IBRD. We do have an impact report both for our Sustainable Development bonds and also separately for our green bonds. Of course, a subset of that goes down to the green bond and the allocations there for green bonds as well as some of the metrics, and the impacts of the reporting, the aggregation for that as well. But, the story really is to really sell the climate component of everything that we do. I think for us, I would just add, in the countries that we operate in, sometimes we can be very prescriptive about what is green and what is not green. But you can imagine when we're working in some of the countries that, some of the taxonomy can be quite rigid in terms of how they label and categorize things. Yet a small improvements in some of our countries of operations can make far larger global impact on climate change. We work on the ground with these countries and we are always working to include climate and make positive changes through our lending within the countries we work.

Jigme Shingsar (RBC): So, Randy, just to stay on that theme. How have investors embraced the notion that everything you do is sustainable – has it been well received?

Randy Ewell (World Bank): It's been surprisingly well received. We've heard a lot from investors that they do understand that there is a lot of 'ticking the boxes'. Increasingly we are seeing investors moves away from that. Where they have chosen to take a broader approach and want to understand everything good that we're doing Transparency is really the key and we aim to be transparent in what we do. We have the impact report. World Bank projects are quite open to the public and people may look and see progress on these projects. What are of the impacts and, of course, it's always complicated to aggregate this data and to show it across the different sectors especially in the social impact areas, but we aim to do that. We take investor feedback and try to incorporate it. We'll continue to do so going forward. But so far feedback has been overwhelmingly positive and investor seem to understand our approach I think investors increasingly understand that there's a lot of good you can do in a lot of areas beyond climate and green and so we have to keep telling that story and being as transparent as possible in terms of our impact reporting as we continue to develop it.

Jigme Shingsar (RBC): Right. Thanks Randy. Maria, how about ADB in terms of ESG? I know you pay a lot of attention to sustainable development goals and so on, and you've issued themes like gender, which have done very well. But you also mentioned your capacity in terms of your ability to issue green is obviously constrained. Do you see that changing over time in terms of how the institution is developing?

The various themes that ADB has offered - green, blue, health, education, gender and water - have all served to highlight ADB's policies and activities in these areas. We will continue to be responsive to investor demand for such issuances as they continue to be supportive of the SDG objectives.

Maria Lomotan, ADB

Maria Lomotan (ADB): Poverty eradication remains a clear mandate for ADB and therefore the achievement of the SDGs is essential. The various themes that ADB has offered - green, blue, health, education, gender and water – have all served to highlight ADB's policies and activities in these areas. We will continue to be responsive to investor demand for such issuances as they continue to be supportive of the SDG objectives. Our issuance approach has been consistent in ensuring that our thematic issuances are guided accordingly by the pace of disbursements. That said, sustainability is an aspect that is represented across all of ADB's projects regardless of the label, so there are really no constraints in terms of issuances supporting sustainable development given our significant funding and lending program.

Jigme Shingsar (RBC): Andre, IADB issued your first syndicated sustainable development bond in CAD. That was nice to see. How do these things go through the organization and then show up at your funding program, and what does that mean in terms of your capacity to issue more, and will you issue more theme bonds or just purely sustainable going forward?

Andre Delgado (IADB): At IADB, all our projects are sustainable and that they impact at least one SDG with many projects impacting multiple SDGs. So, in that sense, we developed the sustainable development bond framework which may highlight projects associated with a specific SDG, but we can also issue as a generic SDB highlighting the sustainability in our projects in general. For each of our projects, there is an environmental and social strategy as well as an environmental and social assessment. The SDB framework was developed with that in mind. In addition to SDB, we also have the EYE Bond Framework, which is purely social and focused on projects in the fields of education, youth and employment which is where the acronym came from. We have also seen quite an increase in interest in both SDB and EYE bonds. For instance, in 2021, 38% of the issuances were done in one of these frameworks. Issuances in 2020 also followed a similar trend with around 31% in SDB or EYE format. As for reporting, we agree, it is a challenging and going forward we are looking into ways to improve and streamline the process, producing the report faster and to some extent making it nicer.

We agree [reporting] is challenging and going forward we are looking into ways to improve and streamline the process, producing the report faster and to some extent making it nicer.

Andre Delgado, IADB

We also made announcements during the COP26 regarding our aspirational targets: We are looking to align 100% of new operations of the bank with the Paris agreement by January 2023. We are also looking to deliver USD24 Billion in green and climate finance in the next 5 years. This is subject to approval by the board of governors, but those are bold announcements, in line with what we have already planned in terms of our vision for 2025 and our climate change action plan 2021-2025, both published in 2021. This will address complex realities in our region, Latin American and the Caribbean, which include planning for the recovery of the Covid impact and promoting a sustainable and inclusive recovery. We are also looking to have a climate change and sustainability specialist in every country. We have already increased our presence from 5 countries in 2020 to 15 countries in 2021, and we are aiming to have specialists in all of our 26 borrowing countries by 2024.

Jigme Shingsar (RBC): So, Andre, if you are able to comply with the very ambitious targets around the Paris agreement and all these other initiatives you've talked about, does that mean everything you issue will essentially be sustainable? And does that sort of make, for example, the Eye bond redundant in the context of your issues?

Andre Delgado (IADB): The EYE bond proceeds finance a very specific niche of projects, and we do have size constraints because the size of the projects in the fields of education, youth and employment tend to be small. So, on aggregate fashion that, each year, we have a limited amount we can issue, which we monitor closely to be in line with the size of the projects. For SDBs to some extent, we are more flexible, especially if we issue in terms of generic SDBs. So, I mentioned our projects are sustainable and we could focus on one specific SDG, depending on where disbursements occur in that particular year. When we issue a generic SDB we are less constrained in terms of the amounts we can issue each year. We do not have targets per se for issuing a certain percentage of sustainable development bonds, but we look to do in line with what percentage is allocated to our loans, as opposed to allocating it to the liquidity pool.

Jigme Shingsar (RBC): Right. Thank you. So, since we've talked about all the increase in themes of sustainability – Randy, you've issued sustainable bonds in Canada and elsewhere with different themes attached. How do you decide which themes you want to bring to the market? Is it just purely demand based, which I think everyone's seen in terms of private placements? When it comes to a larger benchmark type of issues, how do you decide which themes you want to highlight given all the choices you've got?

Randy Ewell (World Bank): I mean, oftentimes what typically happens is that there's some initiatives inside the World Bank on the project side. Some of the specialists may be working on something that gains traction with someone in markets or in some cases it may be something that we feel like is worth highlighting. In Canada for example we had highlighted gender theme to raise awareness for some of the work that has been going on inside the World Bank and essentially showing what some of those projects were doing. Of course health and nutrition occurred during Covid times, and we had a lot to show for how we were helping countries battle the adverse effects of Covid. In Scandinavian markets we chose to highlight food loss and waste. We executed a dual tranche Swedish Krona and Norwegian Krone to highlight this effort since there was so much that had been done on the project side. One of the banks had learned, attended an online seminar on the work being done around food lost and waste and reached out to us wanting to highlight this work to Scandinavian investors through a market transaction. For us this was a Sustainable development bond but work in this effort, if you truly examine it, is probably the most green things that you could probably do. If food loss and waste were a country, it'd be one of the biggest emitters of greenhouse gases. It's that significant. When you look at that from A to Z... all the things that are involved with that. But that was not considered a green bond. So ideas on highlighting or raising awareness can come from different areas. Sometimes we're highlighting some timely and important work that being done on the project side and sometimes we are aware of investor interest are able to find something to display they work the World Bank is doing in that area.

Jigme Shingsar (RBC): Great thanks. Maria, what drives the decision as to what theme you would issue? I mean, gender was very big and very successful.

Maria Lomotan (ADB): The first ADB thematic issuance was private placement in format so we have been true to this origin where a theme is undertaken based on specific investor demand and consistency with ADB's policies and project pipeline. The larger the pipeline and related disbursements, the greater the capacity to issue. Clearly, the starting point is a supportive asset portfolio and complemented by investor demand. The gender issuances in 2021 have been very successful across currencies and with demand available both on a private placement and syndicated basis meant that larger issuance sizes were achievable. We have had similar rollouts with the health theme in terms of issuing on a syndicated basis which have been equally successful.

Jigme Shingsar (RBC): Aldo, the SAB program is newer. Does that mean that we would expect a relative pace of growth to be reflected in the fact that there's a new product, and maybe an emphasis on that, or will they kind of grow in parallel?

Aldo Romani (EIB): I must clarify the sense of our approach to these types of bonds. Sustainability Awareness Bonds are complementary instruments. What counts when issuing these bonds is whether these bonds have a degree of transparency and accountability with the use of proceeds. This is also a consideration for new themes, which is driven by projects directly. Now, the relevance of this kind of transparency has been enhanced by the approach that the European Union has taken on these subjects because of what the European Union is doing, especially to externalize the criteria, whether that determines whether a certain activity contributes to something in a substantial manner or not. We also need to satisfy other conditions, such as whether we are in a position to provide investors with a degree of clarity that is linked to the external review and the audited assurance of what is reported. This is the crucial discriminating factor that should be considered, and in this context, I would like to highlight that we published our new SAB framework in 2021, which is the entire set of technical screening criteria for substantial contribution that were used for the allocations in 2020 Where the data goes, the criteria that we compare, for example, for climate change mitigation, are all relevant for climate awareness bonds. These are the relevant criteria that sustainable finance has proposed last year in reference to the commission for the final version of the taxonomy that will be adopted in this area. It has been adopted and will be executed shortly. We will again compare the criteria that we have used, which are entirely aligned with the proposal of the deck with the criteria of the taxonomy. So, this means that we are creating that additional transparency, which is particularly effective with the capital markets that we are involved in, on the basis of the infrastructure that we have built within the bank. So, to answer your original question, this is a discovery process. The bank has formally committed to applying the taxonomy regulation to its landing activities and our issuance is basically an indicator as to how fast this can be done, and to what extent this can be done. The purpose of our auditing is to clarify where we stand at each point in time. And I think that this is what these bonds actually can provide in terms of added value to investors. Of course, it is important to have reporting that is usually associated with all of our projects, but the ideas that have been introduced by this kind of approach are one that you can report by policy in a systematic and comparable way.

Jigme Shingsar (RBC): Thank you Aldo. Andre, you've mentioned the Eye bond is a very specialized product. In terms of the sustainable development bond versus not really highlighting that necessarily, how do you go down this path when you look at funding?

Andre Delgado (IADB): Basically, as mentioned, EYE bonds are issued according to the size of the disbursements and the combined size of EYE projects. For SDBs we are more open. To the extent that the proceeds of the bond are allocated to loans this can be done as an SDB. We are looking in terms of transparency and we are already producing impact reports showing the aggregate impact generated by the projects financed by SDB bonds. We are looking to streamline these reports and publishing them on the website as well as expedite the production of the reports and make it interactive. Of course, the data is already published, and we can already see for each projects, but are looking into ways to present it in a more user friendly way. We expect that for 2022.

Jigme Shingsar (RBC): Thank you. Piet, I know you're just doing green, you're focused on that. When you make a choice, is it the size of the issue or part of the curve, or something that affects your decision on whether to come with the green format or not green formula?

Size, liquidity are two aspects, and we want to maintain a curve in green bonds.

Piet Jurging, KFW

Piet Jurging (KfW): Actually, both size and part of the curve. So at least for 2021, it had been one of the goals to bring more liquidity in our green bonds, so we tapped on a regional Krona green bond and in Australian dollars as well. So, now we have the biggest green bonds in those currencies, and we did a 4 billion Euro green bond that marks the largest green bond for a non-sovereign. In U. S. dollars, we issued a US$3 billion green bond which is the biggest one worldwide. At least when it comes to green bonds, we did some private placements in green and we have now done them in 13 currencies. So yeah, size, liquidity are two aspects, and we want to maintain a curve in green bonds. I guess when you look at our dollar curve, it is not satisfactory. We just have a 5 year, 8 year, and the 9 year outstanding now. So, for next year, that'll be one of the goals, to let's say reactivate our green bond curve and to fill one of those gaps there.

Jigme Shingsar (RBC): Okay, great, thank you. We've talked about a lot of our issuer base issuing in different themes. Alex, the Canadian market seems very keen to add anything with an SRI focus. Sometimes there seems to be a little bit of distinction still between the ring fenced green structures versus the sustainable, but for the most part investors seem quite open at this point. Any thoughts on that? Is that just the function of the fact that they have so much capacity or interest in adding and there's only so much supply domestically?

Alex Caridia (RBC): Yeah. I think that's certainly a factor. To some extent, the Canadian market is behind some of the more mainstream markets in green – Euro in particular. So, the first green bond issue in Canada was in 2014, which is probably, I guess, 7 or 8 years after the first issue was in Europe. And so, starting from a lower base, investor in Canada have been adding ESG/SRI product. But the overall pool of sustainability focused investors in Canada has grown quite a lot with limited supply domestically. Out of the 10 provinces in Canada, there's really only been two that have issued green, being Ontario and Quebec. There have been some municipalities that have issued but nothing on the federal side yet. We are expecting the Government of Canada to come to the market with their green bond at some point in 2022 with the expectation of the program to be around about C$5 billion a year. We also expect CHMC to issue in ESG format at some point with that issuer being fairly vocal about their intent to do so. So some point we do expect more supply to come down the pipe, but as things stand supply is limited.

FORWARD LOOKING RISKS & CONCERNS IN THE SSA MARKET

Jigme Shingsar (RBC): Thanks Alex. I'm going to be mindful of time and maybe try to wrap this up soon. I know it's pretty late in Manila, Maria. Sorry about that. I guess just maybe more closing comments now. Any sort of risks or concerns, as we look for in 2022? Basically your funding program and also, we've talked a lot about SRI generally, and the pioneering work that this group of issuers has done in the sector has obviously encouraged the development of a green bond or sustainable bond market away from the SAA sector. Does that also constitute risk for the sector as we get further away from the triple-A issuer base? So anyway, why don't I start with Andre? Any concerns as you look forward generally, and any additional comments that comes to mind?

> The on-going transition from LIBOR to SOFR could have an impact in terms of funding and issuances, especially to the extent that the swap market is not yet fully developed for all currencies and maturities.
>
> *Andre Delgado, IADB*

Andre Delgado (IADB): Concern in 2022 will remain the uncertainties in terms of central banks decisions and the pace of return to the "new normal". This could affect all the metrics that we look at – spreads, yields, et cetera. And also in terms of our borrowing program, which is expected to be a bit smaller than 2021. A similar challenge that we have been facing already for a couple of years has been navigating the pipeline. Another thing to look at is the on-going transition from LIBOR to SOFR, which could have an impact as well in terms of funding and issuances, especially to the extent that the swap market is not yet fully developed for all currencies and maturities. I see the swap into SOFR developing very fast, especially in this year-end.

Jigme Shingsar (RBC): So that last point, Andre, is that an efficiency concern as opposed to an availability concern?

Andre Delgado (IADB): It is to some extent a concern on availability because we wanted to make certain it's a liquid market so that we can have proper curves for valuations. We have already moved into SOFR funding some time ago and we are not adding any new exposure to LIBOR. The development of the cross-currency swap market into SOFR, as I mentioned, seems to be accelerating, which is welcomed.

Jigme Shingsar (RBC): Thank you. Piet, any sort of challenges, concerns, looking forward? Is it just markets or anything else structural that you would want to highlight?

Piet Jurging (KfW): Yeah, so there's still some uncertainty about the Fed's policy. Will they double the speed of tapering? Will they hike 1 or 2 times next year? What about the ECB? Will they stop the pandemic purchase program in 2022 and increase the APP (asset purchase program) at the same time? So many questions. How often will the Bank of England hike? In any case, central bank policy will still be accommodative in the next year, but it's possible that we see some shifts between funding costs between the different markets. So, I guess with our good reputation in the capital markets and our investor base, diversified portfolio, that we feel prepared for 2022.

When it comes to funding needs for next year, this will be released mid-December. So you still have to wait for that. But just last week, the coalition agreement has been presented to form a joint federal government and it has been stated that KFW will be used to start some sort of a transition fund in order to reach climate neutrality earlier. Likewise, the new coalition will increase KFW's equity basis if necessary. So it's still too early to comment on our funding target. But in whatever form the government wants to make use of KFW, at least from my point of view, it would rather strengthen our credit due to the higher interrelationship with the federal government.

Jigme Shingsar (RBC): So Piet, just 1 thing, is there any risk from Covid? Because obviously there's been an uptick in Covid cases. I'm not talking about risk in terms of your spreads or anything like that or your credit quality, but, in terms of variability on your funding requirements, whether demand for SSA goes down because of a slowdown, or it goes up for other reasons. Is there some sensitivity to that, which maybe hasn't been fully priced in for you?

Piet Jurging (KfW): Alex mentioned about the dynamics of Covid cases in Germany that they are increasing again. So it's at least a possibility that KFW could prolong its programs to provide liquidity aid for companies in Germany, which have struggled due to the pandemic at least in 2020. Those programs have been ring-fenced and the additional refinancing, we got it done by using the so called economic stabilization fund. So, and I'm pretty sure in case we are prolonging our programs, we are again allowed to make use of this new source of funding via the government.

Jigme Shingsar (RBC): Maria, I know obviously market risk, operational risks, you guys are still mostly working from home. But what are the rest of the challenges going forward, and is Covid one of them?

Adjustments are being made to accommodate these singular times but there is no substitute for face-to-face interactions. [...] While dealing with multiple time zones can be tricky, it has reinforced the efficiency and productivity of virtual meetings.

Maria Lomotan, ADB

Maria Lomotan (ADB): Due to the Covid pandemic, we have been working from home since early 2020 but this has not impacted productivity, having implemented ADB's largest funding program historically over the past two years. Apart from potentially a more volatile market backdrop given concerns regarding inflation and tapering, the persistence of Covid and its delaying impact on normalizing operations and the work setup remain a challenge. Clearly, adjustments are being made to accommodate these singular times but there is no substitute for face-to-face interactions. That said, we have over the past two years, managed to reach out to quite a number investors across markets and currencies, and while dealing with multiple time zones can be tricky, it has reinforced the efficiency and productivity of virtual meetings.

Jigme Shingsar (RBC): Randy, sounds like you're very much on track this year. You are halfway through the fiscal year, any challenges or concerns looking forward?

Randy Ewell (World Bank): Yeah, I mean, I think it would just echo the very same things that has been said before. There's a lot of topics for sure. Inflation is most certainly a recent topic. Is it transitory? Is it here to stay? Interest rate hikes are a topic and when? What will the pace be and by how much? Changes in central banks behavior, like tapering or buyback programs in the US and Europe, volatility and government bond indices and bond markets. All of these things must weigh into our mind for the next year. There's been a good bit of volatility that's been introduced with the new Omicron variant as well recently. So hopefully that sorts itself out and calms down a bit. We are still working remotely as well.

We're looking to get back to the office but most of us have been managing things from home, which has been more efficient than I think anyone had expected. It used to be that we could never do deals or trade from home without special permission, but I don't think I ever want to do any of these 3AM morning calls again from the office again. As for Covid, the effects of the pandemic will linger in the counties with which we work. Covid has severely damaged the lives and livelihood of many of the people and communities which we aim to help. While we are starting to see recovery in some of the more developed countries, it's clearly going to lag for most developing markets. So our work here is not done, we'll continue to support. The effects of Covid will be around for quite a while.

Jigme Shingsar (RBC): Great, thank you. And last, but not least, Aldo, any comments with regards to any challenges or anything looking forward?

Financial sustainability is not just a question of, for example, putting together a different debt and spending project. There is also a question of how you spend the money and make sure that the money is spent in the way that is productive and increasingly can be associated with Sustainability.

Aldo Romani, EIB

Aldo Romani (EIB): I think the technical challenges have already been mentioned throughout the discussion and definitely there is one that is important. There are a lot of issues in the market trying to find the right window, and that is always a challenge. In that regard, there should be some relief on our side because the 2022 program figures that we finalized should be smaller than 2020, so as you know – I wouldn't say normal volume – efficiency steady state has always been bigger around EUR50 billion. In the past years, we have intensified our activities in areas of crisis. Now, of course, this can change, depending on how things evolve, but personally, I think there is a structural challenge that is there and it is the fact that the levels of debt continue to grow. If you factor in the pandemic, it becomes kind of a chronic effect that challenges the possibility of growth to outpace the levels, or our base growth. There are also issues that can continue to lead to a crisis that we have already seen in the past. In this context, this also partially explains the potential that we continue to dedicate to the use of proceeds subject. I think that financial sustainability is not just a question of, for example, putting together a different debt and spending project. There is also a question of how you spend the money and make sure that the money is spent in the way that is productive and increasingly can be associated with Sustainability. I think that until we come back to the subject of justification, with focus on the essentials so that markets can, in fact, give signals in a positive direction rather than in a negative direction, which of course would really create a number of issues. We also have a responsibility in trying to push in that direction, to provide greater clarity for more effectiveness in pushing productivity and Sustainability together.

Jigme Shingsar (RBC): Great, thank you. I've taken plenty of your time so thank you all very much for joining. Thank you for a great year and we look forward to more next year. Hopefully, a lot of these risk concerns don't realize themselves or at least are mitigated by other factors. It does feel like at least in the near term, to Aldo's point, it doesn't feel like there's immediate pressure from a supply standpoint, at least among our traditional SSA issuers. So I think a lot will depend on external factors such as the central bank actions and inflation and how that impacts relativities among the markets. So it'll be interesting here as always to see how we open the markets after a short break, but thank you again for joining. I wish you a very Merry Christmas and happy holidays.

Municipal Treasurers Roundtable

PANELISTS

Errico Cocchi
Head of Pension Investments and Debt Financing, City of Montreal

Christine Dacre
Chief Financial Officer, TransLink

Patrice Impey
Chief Financial Officer, General Manager of Finance Risk and Supply Chain Management, City of Vancouver

Heather Taylor
Chief Financial Officer and Treasurer, City of Toronto

Peter Urbanc
Chief Executive Officer, Municipal Finance Authority of British Columbia (MFA)

MODERATORS

Mansoor Khan
Director, RBC Government Finance

Kevin Martin
Director, RBC Government Finance

MUNICIPAL TREASURERS KEY THEMES

1

Positive but Cautious Outlook: Municipalities are approaching the 2022 budget planning process with Covid considerations still top of mind. For most jurisdictions, property tax revenue was stable in 2021 and not negatively impacted by the pandemic. Municipalities benefited from the economic rebound in Canada with a recovery in user fees (parking etc.) and a sharp increase in land transfer/real estate taxes on the back of strong housing markets in 2021 and the outlook for 2022 is generally positive.

2

Support from Federal and Provincial Levels of Government: Canadian municipalities had a significant amount of monetary assistance from the Federal and Provincial levels of government throughout the pandemic allowing many jurisdictions to avoid deficit positions for their operating budgets. Municipalities with large transit systems received extra support. Canadian municipalities are generally not permitted to budget for operating deficits and must plan to cover any unforeseen shortfalls in their operating budgets within a year, so cost containment measures are critical to achieving balanced budgets.

3

Transit: Municipalities with responsibility for transit continue to see reduced levels of revenue. While transit ridership numbers have recovered from the lows of 2020, they remain below pre-pandemic levels and are vulnerable to future Covid-related travel patterns. Transit operators are planning based on what the "future of work" will look like. Many are expecting businesses to provide the flexibility for employees to work from home for a couple days a week and the challenge will be to adjust the level of transit services to the new habits of commuters.

4

Inflation Pressures: Construction inflation, wage inflation, and higher costs for fuel are among the concerns for Canadian municipalities as they navigate the rebound in economic activity and the associated inflationary pressures. Some of the larger municipalities in Ontario are drawing from their co-operative experiences in pooling their resources during Covid (for PPE equipment and other supplies) to work together on procurement initiatives for other goods and services to increase their purchasing power.

5

Borrowing Programs: Canadian municipalities continue to offer investors attractive value relative to other government credits as local governments must balance their operating budgets in a world where the provinces have generally seen deficits and their respective borrowings increase. There was C$5.9 billion in total municipal issuance in 2021, a record high for the Canadian municipal sector. The forecast for 2022 issuance is slightly lower as MFA BC (a top 3 borrower in the sector) is expected to have less to issue in 2022. Large Canadian municipal issuers are expected to continue to focus on 10-year, 20-year, and 30-year bullet maturity issuance, while smaller municipal issuers are expected to issue via 1-10 year and 1-20 year serial debenture issuance.

6

ESG: The market continues to evolve with more issuers looking to update or create new ESG frameworks to include the social and sustainable aspects in addition to the traditional green bond issuance. It has also been proven that there is a solid demand from the investor side for municipal ESG credit, along with a keen interest in reporting so investors can see where proceeds have been allocated and see the impact of the ESG bond. Canadian municipalities are driving the change in the public sector in publishing ESG performance reports with a view to become more transparent with metrics and use of proceeds. Municipalities are advocating for standardization in broader public sector ESG reporting.

MUNICIPALITY FINANCIAL & ECONOMIC UPDATE

Kevin Martin (RBC): Welcome everyone to the second annual Canadian Municipal Treasurers Roundtable. My name is Kevin Martin and I'm a Director in the Government Finance group at RBC Capital Markets and I'm joined by my colleague Mansoor Khan Director, Government Finance and together we'll be moderating today's roundtable discussion.

We're very pleased to be joined by senior Treasury officials from across Canada for our discussion today which will be organized our around the following general topics:

- An update on the financial and economic health of each jurisdiction
- Update on the transit file from TransLink and City of Toronto
- The borrowing programs and anticipated requirements for 2022
- ESG and sustainable finance initiatives for the members around the table

Heather, let's begin with City of Toronto. During our panel discussion last year, there was a considerable amount of uncertainty around the fiscal outlook given the circumstances surrounding the pandemic. Fast forward a year now and the picture is a little clearer, as the general economy seems to be rebounding well from depressed levels last year. Can you give us an update on the City of Toronto from a fiscal and economic perspective?

> As we're planning for 2022, it continues to be a Covid budget. That is how we're approaching our financing for 2022.
>
> *Heather Taylor, City of Toronto*

Heather Taylor (Toronto): As we're planning for 2022, it continues to be a Covid budget. That is how we're approaching our financing for 2022. We are lucky that we've had enormous support from other levels of government throughout Covid. In 2021 alone we've received just shy of C$1.6 billion in support from other levels of government and received over C$2.7 billion in total since Covid started. Of this total, just under C$800 million was for our transit system. 2022 will be a Covid budget because one of the main drivers of all that support is transit and where we are on ridership. If we use SARS as an example, the financial impact of SARS was as not as severe as Covid, but it took us 5 years to recover from a transit ridership perspective, for context. What we're hoping is that with businesses returning to a work environment in 2022, ridership will come up and the reliance on other levels of government for Covid support won't be as significant. This forecast is based on modeling. I would say that from an increasing costs perspective, we're all watching inflation numbers. We are lucky that we're somewhat insulated from increased costs given the fact that 85% of our workforce is bound by union contracts and those contracts take us out to the end of 2024. We can hope that the management of our major expenses can get us through the remainder of what we're deeming to be the end of the pandemic. Is there anything else that you want me to touch on?

Kevin Martin (RBC): Can you talk about trends you're seeing in property tax revenue and maybe the home transfer tax in Toronto.

> If we use SARS as an example, SARS was as not as severe as Covid, but it took us 5 years to recover from a transit ridership perspective.
>
> *Heather Taylor, City of Toronto*

Heather Taylor (Toronto): Property tax is pretty stable, predictable and an incremental amount of income that is not going to help or hinder us. We didn't actually have any negative impacts on the property tax base throughout Covid, we didn't see the non-payment or the bad debts. I would say that revenue sources are stable. From a municipal land transfer tax ("MLTT") perspective, the real estate markets have rebounded substantially and we are reaping the benefits of that, I'm going to put a caveat there though. A couple of years ago I announced a pivot away from a reliance on MLTT to fund our operating expenses and really what Covid has done, if I want to say there's a silver lining in it, we are pivoting to having MLTT fund our capital plan. Which in actual fact makes us more stable, it eliminates vulnerability of an unreliable tax or revenue source for predictable expenses, so we are using the solid real estate market to pivot us more too where we want to be, and where we need to be from a stable perspective. MLTT has done well, but it's not helping us on the operating basis. It's actually helping us fund our capital plan.

Kevin Martin (RBC): That is another sign of fiscal prudence from the City. Is that a multi-year process or can you pivot right away? What's the timeframe in terms of moving towards your goals there?

Heather Taylor (Toronto): It is a multiyear process, I announced it 2 years ago and we started doing it then. We are going to make more of a progress in the pivot this year and in 2022. The key here is Municipal Finance is a little bit different, you have to have a balanced budget, and the way we were funding our capital plan was contributing from our operating base. Now, what this does, is it puts less reliance on the operating base and allows us to direct our funds to other important files and allows to dial up or dial down based on the markets on our capital side. Hopefully, it'll be more stable going forward. The contribution on an annual basis used to be in the neighborhood of C$350 million. We've got a formula that we are following to wean ourselves off of any operating funding capital. But, that is going to take time. I'm optimistic that we're actually going to be able to advance that quite substantially in 2022.

Kevin Martin (RBC): Thank you Heather. Errico, let's bring you into the discussion here for an update on City of Montreal and how 2021 has been from a financial and economic standpoint for the city.

Errico Cocchi (Montreal): 2020 was a bit tough for Montreal with respect to the effects of the pandemic. But the way we're structured, almost 70% of our revenues are based on property taxes. So, it was fairly stable last year, and there was a bit of a concern regarding the percentage of collection for property taxes but our collection percentage ended up close to normal this year. Also, with everything that happened we received significant support from the senior levels of government, the only change in 2021 was a freeze on taxes, there were no increases for Montreal residents, which was budgeted earlier in the year so revenues were fairly stable on property taxes. For real estate transfer taxes, the real estate market has gone up this year which benefits us.

Things have been getting better in Montreal and Quebec since some restrictions were lifted in the summer. We are slowly coming back to a new normal. There is a rebound in economic activity, GDP numbers for Quebec were pretty good this year. Obviously not everything is perfect, similar to Toronto, the transit ridership is still around 50 to 60% of pre-pandemic levels, and there is a return to the office slowly in Montreal. This will probably increase a bit more at the end of the year or early next year, but that's one of the big issues there.

For next year, since we've just gone through municipal elections recently, there's a new executive committee that was formed. The budget for next year has not been formalized yet because of the election. We will get some information on that fairly soon. In retrospect with everything that has happened, and still happening as the pandemic is not over, I think the stability of our revenues has been fairly positive. Expenses have gone up, related to the pandemic, but we are positive. Montreal still has a lot of construction going on for city purposes and in the real estate sector. So activity is picking up and it's quite positive on that front.

Kevin Martin (RBC): Thanks, Errico. Can you just touch on the distinction of the way Société de transport de Montréal (STM) plays on the transit file for the city in terms of? I think it's a little bit more aligned with the province, as opposed to directly underneath the city.

Errico Cocchi (Montreal): With the STM, most of the projects are financed close to 80% by the provincial government. The rest is financed by the city, and then the revenues from the STM go through a structure called IFPM. Most of the expenditures relating to big projects the provincial government pays almost 80%. The transit community will get a lot of support related to Covid, that's really where it hurts a bit more. However, the structure puts part of the cost burden on the city, but most of it is on the provincial government.

Kevin Martin (RBC): Christine, certainly transit is your main business in the lower mainland BC. Can you give us an update on how ridership numbers have been trending in 2021 compared to what you budgeted at the beginning of the year?

> We're confident that ridership will come back, transit is very important in our region and we had one of the highest ridership growths pre-pandemic.
>
> *Christine Dacre, TransLink*

Christine Dacre (TransLink): Our ridership numbers are forecast for this year to be about 7% below budget. However, transit revenue is forecast to be just under 2% because of the mix in our various fare products that we sell. The recovery of our ridership has picked up significantly since September. We were on a slow uptick, but when universities and schools went back to in person classes in September, and many restrictions on events, and social activities have been lifted and with the vaccination rates rising we have seen an increase. Our latest average week day journeys are at 57% of pre-Covid levels and the average weekend journey is at 68% of pre-Covid levels. So it's interesting to see the weekend journeys are recovering at a better pace than the week day journeys. That is really related to the fact that a lot of people are still working from home. As we see people start to come back to work, the week day journeys will increase, however, longer term, we probably won't quite hit the ridership peaks that we saw previously. We believe the future of work will see more businesses move to hybrid setups providing the flexibility to work from home for a couple days a week and we believe that will impact our services and we will have to adjust to that. In the past we've been used to seeing those peaks in transit ridership in the morning and at the end of the day and we believe those peaks are going to flatten out and that will be our challenge to adjust the level of services to what that new normal is going to look like.

Kevin Martin (RBC): Thank you Christine. The province was fairly supportive throughout the whole pandemic process. I assume that the discussions are ongoing in terms of future supports and can we get an update on there.

Christine Dacre (TransLink): The relationships that we have with the senior levels of government, I think is similar across the board here, the provincial and federal governments' support have been huge. We received C$660 million from the provincial and federal governments, and that really helped our net losses in 2020 and 2021. The challenge for 2022 and beyond because of that significant change in ridership, is really that longer term systemic problem we have to deal with. There's also fuel tax revenue. Fuel tax revenue is something that we were hit with. It declined because of Covid and as people work from home, they're not driving as much. Also, another issue with our fuel tax revenue is that people are moving to electric vehicles. We are currently updating our 10 year investment plan and we're working with our mayor's council and the provincial government on a new funding source that can fill that gap. We're confident that ridership will come back, transit is very important in our region and we had one of the highest ridership growths pre-pandemic. We're confident that it will come back. It's just a matter of when and how fast and that's what we're keeping our eye on, but the provincial government and the federal government have been a huge assistance to us and they continue to be talking to us.

Kevin Martin (RBC): The point on electric vehicles is an interesting one and I know that in terms of TransLink's fleet, you guys in many senses were ahead of the game by many years by electrifying the buses for most of your fleet. As well, as I believe the sky train is almost completely electric. Can we get an update on your future capital investments for the rolling stock, I guess electricity is top of mind and those sort of purchases?

Christine Dacre (TransLink): We have a low carbon fleet strategy that has been approved and we will be building it into our next 10 year investment plan. Our plans are to replace all of our buses as they reach the end of their life with battery electric buses. That obviously comes with significant other investments in the infrastructure. We are building a new transit center that will be 100% electrified. It will house 100% battery electric buses. We do have a plan, it's an aggressive plan, but, we also need to be flexible because we can't put all our eggs in one basket. Hopefully there'll be other technologies and improvements to the battery electric buses and infrastructure, but we want to make sure that we move forward as quickly as we can. At the same time, we want to be open to new technologies that come up.

Kevin Martin (RBC): Thank you for that Christine. Let's stick with our British Columbia-based issuers here. Patrice, welcome to the panel this year. I'm curious if you can give us your perspective over the situation that City of Vancouver has gone through over the last 2 years with Covid and challenges and opportunities that you've seen through the last year.

Patrice Impey (Vancouver): Thanks. Nice to see everyone at least virtually. It's definitely been an interesting couple of years for Vancouver. We had some pretty significant revenue impacts for us. The majority of our revenue is property tax and utilities, very predictable. We actually anticipated we'd have an increase in delinquent payments and we delayed the payment date as I think a lot of cities did. And in fact, we had pretty much the exact same payment trends as we had in previous years, which was fortunate. About 25% of our revenue is quite variable and that's the piece that was impacted. Certainly, parking revenue was impacted, as well as our program fees. Most of our expenses are fixed such as people expenses and facility expenses. We did receive some funding from the provincial government through the restart program which covered less than 25% of our revenue loss. We adjusted the rest through service adjustments and staffing and wage reductions within the city. That was how we went through 2020, and we are fortunate that we have a revenue stabilization reserve that we had built up over the years for this kind of a situation. We were able to balance the budget in 2020 using that reserve.

> As we went through Covid, and I think all of the big cities experienced the same thing, the housing situation became a big issue and just recognizing how much of our population was vulnerable.
>
> *Patrice Impey, City of Vancouver*

In 2021, we're also balancing the budget with the use of the stabilization reserve. The budget didn't fully balance even with a tax increase of 5%. We have a council that wants to do a lot of things through this pandemic, and we are continuing with our strategies. Like Toronto, we are looking at the financial situation improving this year. As Christine said, people are downtown more and starting to move around. Being an outside-focused city, we saw an increase in activity in the parks over in 2021. Parking revenue has also improved quite a bit. That's helped us in 2021. We still don't think we'll be back to pre-Covid levels in 2022, because not everybody is going back to work in 2022, but it's looking much better and we're not expecting to draw from our reserves in 2022.

Economically, Vancouver has done well. Even through this tougher period we've still had a lot of investments. Our technology sector is growing and doing really well. As a City, we don't get a lot of direct benefit to city revenues from that activity, but it does help us as far as a noticeable increase in energy and momentum of the City. Our development had a little bit of a slowdown in 2020, as everyone was trying to understand what that might mean for the economy, but it has since picked up. About a 3rd of our capital plan is funded from development revenues, so we had slowed things down a little bit in the middle of our capital plan last year, but it looks like those are picking up again.

We're in the midst of developing the Vancouver plan, which is to set up the development and land use plan across the city. That'll look at how we're going to grow the density, looking at the transit needs and how it translates to expansion, and how we develop the city and build the city. There's a lot of really interesting work happening this year and that's going to really set the stage for the future. We've got the Broadway subway line that's being built and that's going to be a real growth driver for the city. We're also starting discussions of expanding that line out to UBC as well. So, a lot of good transit investment in Vancouver which should lead to additional external investment opportunities. So we're seeing the turn and looking forward to that in 2022.

Kevin Martin (RBC): Thank you Patrice. As you go through the planning process now over the next number of years, Covid stays in the back of one's mind, doesn't it? Can you comment on the potential long term implications of the pandemic (if any) on the City's finances?

Patrice Impey (Vancouver): As we went through Covid, and I think all of the big cities experienced the same thing, the housing situation became a big issue and just recognizing how much of our population was vulnerable. We got quite a bit of funding from the federal government through the reaching home program and others to purchase hotels and turn them into permanent housing for people, and we are continuing to look at our alignment with the federal government around housing. The social issues became a higher priority through the pandemic and that's really finding its way into what our plans are this year as well. So, that was certainly one of the bigger trends that we saw.

Kevin Martin (RBC): Thank you and we are going to pick up on the social housing theme a little further on in the discussion. Peter, let's bring you into the conversation. We've heard about Vancouver's experience. You have a little bit of a broader view on British Columbia, given your capacity is a regional infrastructure bank for local governments in British Columbia. Can you provide an overview for us of how MFA BC fared in the last year in terms of loan performance? Any visible trends that stood out from your perspective?

Peter Urbanc (MFABC): Thanks Kevin. Loan performance continues to be stellar at MFA. We have never had a delinquency or loan loss in our 50 plus year history and that track record has continued throughout Covid. Everybody here has talked about how local governments over the last few years tightened their belts. Local governments in Canada must plan for a balanced budget every year. That legislation forces local governments across Canada to act like a business - and that is exactly what has happened in 2020 and again in 2021.

Loan performance continues to be stellar at MFA. We have never had a delinquency or loan loss in our 50 plus year history and that track record has continued throughout Covid.

Peter Urbanc, MFA BC

In BC, as Patrice mentioned, we saw limited direct monetary support from higher levels of government, away from social housing perhaps, in terms of helping basic municipal budgets. Patrice talked about how the Province only helped fill about 25% of the negative budgetary impacts to Vancouver due to Covid - I would say that was relatively consistent for larger municipalities across the province. The Province did use a formula that helped smaller local governments a bit more than larger local governments - and that was quite helpful to some who didn't have the capacity to cut costs quickly. The MFA lends predominantly through regional districts to local governments or directly to regional districts and that lending becomes a joint and several liability which produces a fortress like system for the MFA. As I've said, we have never a delinquency in our entire history. The regional districts, and really the largest 8 or so, are the main entities that we lend to and they then on-lend to the broader system. When, historically, say a large mine closure would have significantly impaired small town's revenues, the Regional District continued to make all payments due to the MFA.

We are currently dealing with two tragic emergency events in this Province: the forest fires throughout the summer and now the historic floods. The local government system is showing its resiliency through this very difficult period. Let's talk about the sad case of Lytton, B.C. which was burned to the ground and houses and municipal infrastructure was absolutely ravaged. You had Lytton's local government staff immediately scattered across the province. MFA did have loans outstanding to Lytton, but they have continued to be serviced by the Thompson-Nicola Regional District. Despite those difficulties, the way the system is set up really enhances the credit protection for bond holders. We end up getting paid despite these terrible scenarios.

Kevin Martin (RBC): That's a good point Peter, it's unfortunate that BC has had more than its fair share of natural disasters this year and I realize it's still a bit early to talk about the impacts of the recent flooding we've seen but, maybe just your impression on what the cleanup and rebuild process might look like, for some of these regions as they go through the process; will that result in an increase in loan requests? How do you think some of that is going to be dealt with?

Peter Urbanc (MFABC): It is far too early to know what the overall impacts of these floods will be. There is no doubt that these will be very large impacts and there's no doubt that the provincial and federal governments will offer significant help. The traditional approach has been that in these types of emergency situations, typically about 80% of the cost to rebuild municipal infrastructure, in addition to helping businesses and individuals, does flow from the provincial government who then often can share some of those costs with the federal government. We are in the early days and it's hard to know what the overall costs and impacts will be. I can give you a little bit of what MFA is seeing so far that may be of use for investors. First, if you look at MFA's existing loans to the impacted areas, we're looking predominantly at 7 local governments and 1 major regional district where most of the flooding impacts have been felt - MFA has about C$95 million of outstanding loans to those impacted areas. Most of those are long term loans. We only have about C$1 million of short-term loans. Those loans are all current and we don't expect any difficulties on that front as those local governments, including the regional district, have significant cash reserves. Obviously, they are going to have significant expenses as well, but we expect a lot of help from the Province on that front.

There are insurance policies in place as well for some of the damaged infrastructure, but a big proportion will be uninsured. Flood insurance is complex. It is often tricky to ascertain what the primary cause of flooding damage was - whether the sewer backed-up, the water table rose or overland water caused the damage. As I said, provincial disaster relief can provide 80% of the cost to rebuild public infrastructure to pre-disaster conditions. With that program coming in place, MFA will be able to offer assistance to local governments, for revenue anticipation short-term lending. The DFA is claims based, so local governments will only get paid during an emergency after they've submitted the claim. What MFA can do is provide short-term lending as soon as the local government has been accepted into the program. So we may see a limited increase in short-term loans on our balance sheet and those will be backed by a promise to pay from the Province.

Throughout Covid, we have had revenue anticipation lending available - but the program has not been used at all really. In the early days of Covid we were worried about property tax revenue not being collected but in the end there were no problems with tax collection as extraordinary support was provided to taxpayers and businesses via federal and provincial programs. Local governments were able to right-size and batten down the hatches by reducing expenses. I should mention MFA does not lend to public transit, which of course has suffered sharply from the low ridership due to Covid.

I can't really tell you how much this short-term lending will go up but again, during Covid none of it was used. We have ample commercial paper availability right now to provide hundreds of millions of dollars, if that's necessary. In terms of expected growth of long-term lending, that will take time to estimate because there is a very long process involved in BC for LGs to borrow long term - you must have public, provincial, and then MFA Board approval, a process that can take about a year. I do expect that we'll have likely some longer term lending increases, but we won't see that for quite some time, likely in 2023 or later.

Kevin Martin (RBC): Thanks Peter. I'd like to bring Patrice and Christine back in to the discussion. For the benefit of our international investors, who will know the headlines of floods in BC but maybe not familiar with the geographic areas affected, could you help address the impacts that you're anticipating over the near term?

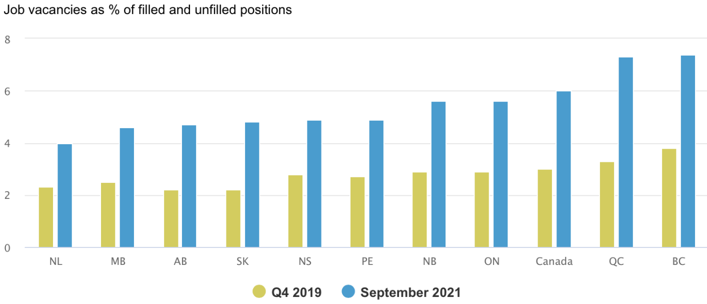
Christine Dacre (TransLink): I can start. Abbotsford and Sumas were the hardest hit in the lower mainland. It is not in TransLink's service area. We do not provide transit service to them, BC transit does. It also did not impact our infrastructure. We don't have any facilities or infrastructure in that area. So, it didn't impact us, however supply chains were an issue. Obviously, we're hoping that the highways are going to open up, I think very soon. We can't get goods out past Abbotsford and we can't get some goods that are coming from the east into the lower mainland. We have some parts that come from Ontario and Quebec. What we've done is we've rerouted them through the US on the interim. We are working on very creative ways in getting some of those critical parts to us. The other thing is fuel shortage, and we're limited to the amount of fuel we can purchase in the Province. However, TransLink is deemed an essential service so our fuel supply for our revenue vehicles is secure, so the main impact of the flooding to our business has been the supply chain and we've had to make adjustments for it.

Kevin Martin (RBC): Patrice, I guess it's the same situation for the City of Vancouver, in terms of maybe not as much of a direct impact from the floods, but certainly knock on effects? The port of Vancouver was severely affected as a result of the transportation blockages.

Patrice Impey (Vancouver): Yes it did. As far as the flooding itself, fortunately, Vancouver fared reasonably well, more general storm impacts, trees down and things like that. Most of that was fairly manageable. We did have emergency operations set up, but we definitely fared much better than the Abbotsford area. In addition to the highways, the rail link to the port was also down and that's pretty significant. A lot of the transport comes in and out through the port and through rail as well, which I understand is, if it's not back up and running, it is going to be in the next few days. That was a challenge for the city itself and the port. For us, for our work the impact really is a supply chain issue. We do have some significant construction projects and the concern is how that's going to impact the bids for our work. There are many demands on the industry and now also this uncertainty around getting their supplies in. So we're just keeping an eye on the situation and hopefully some of the delays clear up as they're able to re-open the rail and the highway corridors that were affected.

JOB VACANCIES TOP 1 MILLION

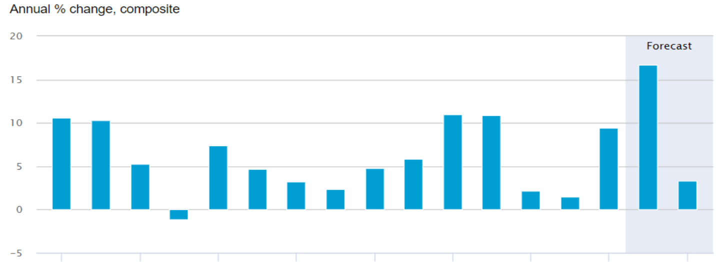
Job vacancies as % of filled and unfilled positions



Source: Statistics Canada, RBC Economics

HOUSE PRICE INCREASES TO MODERATE IN 2022

Annual % change, composite



Source: RPS, RBC Economics

INFLATION

Kevin Martin (RBC): Thanks Patrice. That's a good segue to the next segment that we want to discuss. Inflation is getting a lot of attention these days. Everybody's seeing prices go up. Whether it's the grocery store, or at the gas pump. Heather, you touched on the City of Toronto's experience with price pressures and not necessarily seeing it immediately right now as there are some built in stabilizers. I'm curious on the medium term view, 2 to 3 years out, do you sense that there could be some inflation pressure for the city? Whether it's a cost input for your operations or salaries?

Heather Taylor (Toronto): With regards to expenditures, whether they be capital or operating in nature, we started it in 2020 and actually made a significant amount of progress in 2021. We've been working with the Greater Toronto & Hamilton Area (GTHA) on certain initiatives, and one of them is procurement. We're focusing on how we as a region procure differently. There's been some progress made on creating some cooperative procurement arrangements, and looking at the purchasing power that will come together as a region. We've worked with EY (Ernest & Young) on some modeling and what that can look like. We've identified some very short term opportunities which we already have underway. Our hope is that we're going to be able to manage some of those increased costs that we're experiencing in some of the large areas of our spending through these cooperative arrangements - fuel being one of them. Toronto has a significant fuel contract that now the GTHA is actually going to participate in. We're trying to look at new innovative ways of trying to manage the costs, rather than everybody trying to find their own solutions and combat the challenges ahead. That is a significant and material opportunity for not only Toronto, but the GTHA. We started it off with the procurement of PPE through a co-op that works with the Ontario hospitals and have now expanded that into our pharmaceutical purchases across the system. Some might not know this but Toronto has significant pharmaceutical expenses. We have veterinary services, paramedics, our public health unit, and so when you start looking at it, it all adds up. What we're trying to also do is demonstrate, as we have our hand out to other levels of government, we're demonstrating how hard we're trying to manage our own expenses. So, I would say that Toronto, working with other municipalities, is trying hard to insulate ourselves as much as possible from the inflationary experiences that are obviously in front of us.

We're focusing on how we as a region procure differently. There's been some progress made on creating some cooperative procurement arrangements, and looking at the purchasing power that will come together as a region.

Heather Taylor, City of Toronto

Kevin Martin (RBC): Yes, it's an interesting point and perhaps a silver lining behind Covid in terms of lessons learned and best practices that we can continue going forward. Errico, are you starting to see some price pressures build or do you anticipate price pressures building as we go forward here in the City of Montreal?

We'll see what happens in 2022, but for now, we haven't heard that much pressure regarding costs. Going forward if the demand keeps being strong, I think we won't be immune to some cost increases.

Errico Cocchi, City of Montreal

Errico Cocchi (Montreal): Most of the work in the City has been contracted months ago. Those costs are usually already established. Going forward, intuitively, you would expect that we will be impacted as everyone is, especially related to construction where there's currently a big shortage of labor. For the direct expenses relating to the city's employees, I think there's only one bargaining agreement that's ending this year with the police association. Besides that, all the other employee agreements are not up for re-negotiation for another few years. So we may see the impact in a few years but it depends if you're in the transitory camp regarding inflation or not in the transitory camp. We'll see what happens in 2022, but for now, we haven't heard that much pressure regarding costs. Going forward if the demand keeps being strong, I think we won't be immune to some cost increases. Regarding large construction projects and things like that, those are part of our capital spending program. It's a smaller part of the yearly budget, and those projects are planned over 10 years. Regarding our revenues, the mayor promised that taxes will not increase more than inflation but this year it will be interesting to see if the inflation on an annual basis could be as much as 4 or 5%. We'll see if they'll raise taxes by 4 or 5% but it should closer to 2 % like years past. That's obviously political so we'll see what happens there.

Kevin Martin (RBC): I think you bring up a very interesting point and I know it is quite political when we talk about passing along those costs to the end user, whether they be taxpayer or consumer. Christine, you might see it first-hand in terms of the transit fare box and how you're planning future fare increases. Does that come into play in the medium term as you look at the revenue planning process?

Christine Dacre (TransLink): Absolutely, when Covid hit we did not put our planned fare increase in 2020. We recognized that there's only so much the public can take, so we didn't implement a fare increase. We did put an increase this year (July 1st), it was +2.3%.

A risk that we see is just the capacity in our region to do all of the work that needs to be done.

Christine Dacre, TransLink

We were also able to benefit in getting provincial funding with their emergency relief funding. They contributed C$44 million towards us not increasing our fares more than 2.3% through 2024. So that's our plan, but absolutely beyond that, we need to look at what is that fare rate increase and looking at what the region and what the public can afford and the pressures on them, definitely comes into that conversation. I would like to comment a bit on the pressures we have in the construction phase of all of our projects as well. We are certainly seeing increased inflation on construction especially. As we're developing the new ten year investment plan, we're revising all of those assumptions that we had in those expansion projects. We'll be able to refresh the planning which will still need the funding to support that increase cost as well. I would also say a risk that we see is just the capacity in our region to do all of the work that needs to be done. Not only for TransLink and our expansion plans, but also, with the result of the flooding and as Peter mentioned, the fires. In order for the region to rebuild, is there enough capacity, including workers etc. out there to do what is going to be needed to be done? So that, on top of the inflation concern, is something that we're definitely keeping an eye on.

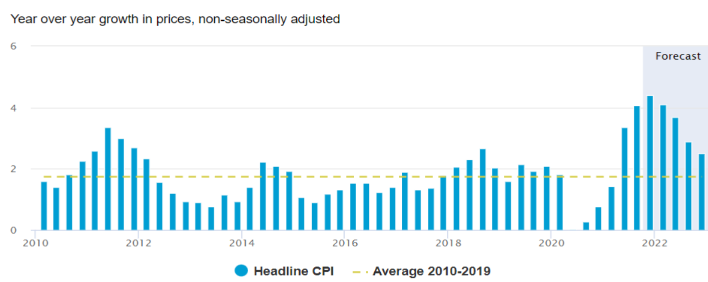
Kevin Martin (RBC): Patrice, I guess it's the same sort of pricing pressures you're seeing within the City of Vancouver?

Patrice Impey (Vancouver): I would say similar, most of our collective agreements continue through 2022 so that question won't come up for us for a few years. We've seen construction inflation at a high rate, much greater than CPI growth, for a number of years in Vancouver. That has been a factor for some time and we build that into our capital plan. I would agree with Christine, there's just a lot going on right now and competition, so it might be pricing and it might be just even the availability of bidders on some of the work. And so, possibly aligning our capital plan in different areas, and we'll see how that unfolds. But inflation wise, we've been experiencing that for the last couple of years already.

Kevin Martin (RBC): Thanks. Peter, a last word to you for any insight from your side on inflation pressures in British Columbia.

Peter Urbanc (MFABC): I would have mentioned exactly the same points. Construction inflation has been very high for a long time in British Columbia. Wage inflation for Police is a current issue for smaller and medium sized local governments right now. The contract with the RCMP has just been renegotiated and that is going to have significant impacts because it is a backdated contract, I believe going back 5 or 6 years calling for a 24% increase of their wages over that period of time. Despite all the stories about significant wage inflation in the press, I would say so far that's been mostly a US phenomenon. Although we do have a very low unemployment rate in Victoria, for example, the lowest in the nation, I believe - it is becoming challenging to hire people all across a whole variety of areas in local governments. I do expect that there will be higher wage inflation going forward for a few years.

INFLATION RATE TO RUN HOTTER THAN PRE-PANDEMIC



Source: Statistics Canada, RBC Economics

MUNICIPAL BORROWING

Kevin Martin (RBC): Great, thank you. Peter, let's stay with you as we go into our next segment which is borrowing. 2021 has been a record year in terms of debt issuance for the Canadian municipal issuers. We saw C$5.9 billion in total municipal issuance in 2021 which is a 3% increase from 2020. MFA BC was a big part of the total borrowing this year, at just shy of C$2 billion. In fact, for the 5 issuers around the table today, if we total up what you borrowed this year, it represents almost 75% of the total borrowing for all Canadian municipalities (excluding the non-rated Quebec municipal issues). The municipal sector also enjoyed a very low cost of borrowing relative to the provinces. This year municipality credit spreads really tightened in vs. Ontario and remain at levels that we haven't seen since the early 2000's. There is still very good demand from the investor base, both domestically and international for Canadian municipal bonds. Peter, can we get your thoughts on MFA BC's borrowing program in 2021 and what you're anticipating for 2022?

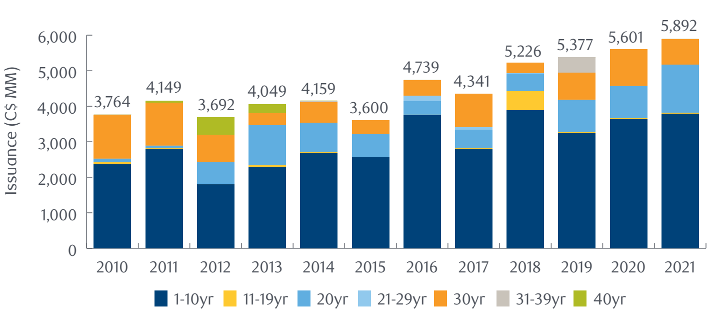
Peter Urbanc (MFABC): Yes spreads have continued to compress and I think they'll remain here at these tighter levels. Municipalities will continue to offer very attractive relative value, relative to other layers of government - and part of that is a supply issue. We've had federal, provincial and regional governments across the world massively increase their borrowing in concert due to Covid. Whereas local governments have had to balance their budgets. Obviously, local governments can borrow for capital purposes and that component has grown, but the growth has been predictable, very stable and nothing close to the deficit-induced borrowing of the other layers of government. From a relative value, call it rarity value perspective, municipal debt and MFA debt present great value in my view.

For 2021, MFA had a big borrowing year. We had quite a few refinancing's to deal with and some firsts for MFA. We borrowed just a little under C$2 billion dollars for the year. We were able to issue for the first time in a very long time, a new 20-year bullet issue. Typically MFA has issued 10 year and 5 year bonds, but we were able to marry a desire to extend our curve with Member requests for longer amortization periods and locking-in long rates. For 2022, because our refinancing needs aren't as heavy, our borrowing needs will tick down a little bit. We are expecting a program of between C$1.4 and 1.8 billion. As we've discussed, our long-term borrowing will not pick up next year due to the floods. It will take longer than that for that to start coming into play. Our short-term borrowing may go up a bit. We have a modestly sized commercial paper program. We can always increase the size if we need to. But as I mentioned, we have quite a bit of capacity within the existing commercial paper program to deal with any increases in revenue anticipation.

Kevin Martin (RBC): Excellent. Thanks. So you have brought up the 20 year could you explain for our readers why the MFA shifted out the curve to issue 20 years?

Peter Urbanc (MFABC): MFA issues bullet securities in the capital markets, and we on-lend those proceeds to borrowers on an amortizing basis over 5 to 30 years. So we issue a large bullet bond, but we have to recreate loans that are amortizing over various terms to our customers. When we issue C$500 million, we may have 30 Members who may be borrowing for 50 different projects. We typically have issued a 10-year bullet bond to initiate new lending operations to our Members. We pass-on the 10-year coupon to our customer and then we've reissued in 5-year increments so that we can recreate these 10 to 30 amortizing loans. For many reasons,

ANNUAL C$ MUNICIPAL ISSUANCE



Source: RBC Capital Markets

that construct has worked very well over the last 30 years - mainly because interest rates have been dropping. Local governments have very low amounts of debt in BC and they tend to want to pre-pay their debt. This construct where we issued a 10 year, and then 5 year increments, often allows them to early-pay the loan to MFA at those increment points, especially in environments where rates were coming down - as MFA takes no interest rate risk. So, unlike a bank, that may borrow short and lend long, MFA has no deposit base which tend to be stable and is therefore not willing to take a view on the shape of the curve. We're a pass-through entity. With rates continuing to drop over the last few years, we had clients increasingly asking us to lock-in rates for a longer period of time in addition to a large grouping of clients amortizing over 20 years or longer. That is what allowed us to issue this 20-year bond - we need clients amortizing over 20 years or longer - and also interested in locking-in rates for 20 years or longer.

> Municipalities will continue to offer very attractive relative value, relative to other layers of government and part of that is a supply issue. We've had federal and provincial governments and regional governments across the world massively increase their borrowing due to Covid. Whereas local governments have had to balance their budgets.
>
> *Peter Urbanc, MFA BC*

MFA's debt maturity schedule is shorter than a typical municipal or a provincial issuer and so we also strategically want to lengthen the term of our issuance. We hope 20 years and possibly 30 years to become a more regular part of our issuance curve. The 20-year issue been a great experience for us. We priced at a tight level relative to our 10-year and 5-year bonds which clearly signaled demand for MFA long-dated securities. Our curve is very flat, flatter than any other municipality and it is a reflection of the rarity value of MFA bonds in that part of the curve. We were able to sell the 20-year issue to some large pension funds and insurance companies - as well as other investors - who have always wanted to purchase the MFA name in a longer maturity.

Kevin Martin (RBC): It was an excellent opportunity for MFA BC to extend out the curve and very encouraging to see the investor response to the 20 year maturity. Thanks, Peter. Heather, City of Toronto has been a regular issuer in the 20 year space. You don't have to comment specifically on the 20 year here, but perhaps you could comment on the City of Toronto's borrowing program in 2021 and looking beyond into what the city's borrowing plans are for 2022?

Heather Taylor (Toronto): Over the last few years we've had authority to finance up to a C$1 billion dollars on an annual basis. We don't expect that is going to change, if anything, it may potentially increase. I think we've all commented on the need for capital investments. Covid has accelerated the need for certain priorities, whether that be affordable housing; whether that be some of our equity programs; or in Toronto, we have a heavy shelter presence; and a need for climate change preparedness. So it is about looking at our 10 year capital plan and trying to understand what needs to be accelerated to actually come out of Covid from a citizen need perspective, an equity perspective and also a recovery perspective. I will say confidently it will be a C$1 billion. Would it be more? I think that's something that we're looking at right now. With regards to the borrowing terms, the city has chosen to do variations of 10, 20, and 30 years. On top of that, the social and the green issuance is strategically there to ensure that we've got a diversification on the rates, but it really is also driven by the type of assets that we need to have funded through the financing and the positive environmental and social outcomes we are trying to achieve . What we try to do internally is match the type of assets to the terms that we're funding. That really is the driver. We have a list of assets we look at, we break them out into the useful life and we do try to match the useful life to the amortization period and then that drives the values within each of the issuances of 10, 20 and 30 years. Every year, we will intentionally do a mix and obviously there's benefits from an interest rate perspective on that as well given the fact that municipalities have to fund the debt service charges, so it mitigates the exposure on the interest rate component, the repayment component, but it also helps us manage the pace of the replacement of those assets that we're financing.

Kevin Martin (RBC): Thank you Heather. Errico, it's a good chance to get the City of Montreal's perspective on this. Second, to MFABC, Montreal was just over at C$1.3 billion issued in 2021. Can you comment on the City of Montreal borrowing program please?

Errico Cocchi (Montreal): The year was a pretty good one for Montreal from a financing perspective. Our last issuance was our biggest one since I can remember, and I've been at the city for a long time. The rates were attractive and we were actually very lucky with the last one where we issued, I think two days before the Fed came out, and rates started increasing. Regarding next year, as I mentioned before, with the elections and the new executive committee the budget is not finalized yet. We don't have those numbers, but it should be a similar amount to what we've been doing for the last few years, so in the range of $1-1.5 billion.

We've been doing 20 years for a long time. Initially we were almost alone in that sector of the curve for municipals, and I recall some participants were not too excited on the 20 year term a long time ago. There wasn't too much demand there and it was kind of a strange part of the curve. But the 20 year maturity is still preferred by us for a few reasons. Similar to Toronto, the amortization of assets. You have to have the assets that can be amortized for longer than that, and then other administrative issues regarding the province and other issuers in Quebec. There's been a few changes lately internally where we have some assets that will be amortized on a longer term now, we'll see how that evolves regarding issuance. We'll have to wait and see regarding that. The focus will still remain on 10s and 20s for shorter term. We have some serial bonds for refinancing purposes or smaller capital expenditures.

Kevin Martin (RBC): Thank you. Patrice, we're used to seeing City of Vancouver on an annual basis typically in the fall and this year, there was no exception. Curious to get your thoughts on the borrowing plans for City of Vancouver going forward.

Patrice Impey (Vancouver): Our borrowing is primarily for renewal of our assets which is quite predictable. New assets are often funded through development contributions or other in-year revenues. As with most cities we have a lot of our current assets that need renewal and in fact, our renewal rate is probably not where it needs to be. We need to be doing a better job of our renewals, trying to fill that infrastructure gap as the city grows and adds more assets. It's a fairly stable plan that we have around renewal. It is a multi-year plan, and we expect we will continue to do a C$100 million issuance every year and that may grow as the renewal plan grows. We're in the midst of working on our next capital plan. We'll have the 4 year plan out in mid-2022, and I expect we'll continue with that same similar amount every year.

Kevin Martin (RBC): Christine, we haven't seen TransLink issue yet in 2021. I guess you're waiting for the last 2 weeks of December here. Maybe we'll get something. No, I'm just kidding! Can you provide an update on what the borrowing program might look like into 2022 and 2023 for TransLink?

Christine Dacre (TransLink): Last year was a unique year. It really started in 2020 when we did go to the market twice. We had to refinance C$250 million for our inaugural bond from 2010. That was our first issuance in 2020 and then in July, we issued C$400 million. Without knowing what was happening with Covid at that time, believe it or not, we were talking about a second wave. Now we're well into the fourth wave, but at that time, just not knowing what was going to happen in the market and with Covid and everything, we actually over-borrowed in 2020. In 2021 we did have a slow down on our capital spend for lots of reasons. We felt that we didn't need to borrow this year and we have chosen to push it out into next year.

For 2022, we're forecasting about C$1 billion in total capital spend, but a lot of that is funded through our senior governments as well as federal gas tax. We're estimating approximately C$500-600 million in cash spend. So, that's likely what our borrowing program will be. When we look at the terms, typically they have been 10 year and 30 year, and we've done 40 year in the past as well. We're similar to everyone, we try to match the life of the asset that we're borrowing for, but we're not tied to that. We are very flexible. We do have short term assets that we borrow for as well as very long term assets. We kind of look at a whole bunch of different factors and really looking at the C$250 million bond we issued in 2020 was a 5 year. This was the first time we issued 5 year debt, why did we do that? Well, we do actually have some 5 year assets, but it had more to do with the market environment at the time (this was March 2020). We're very fortunate that we're flexible enough that if the markets really want 5 years, we don't want to push it and push for a 30 year. We could fit the 5 year in. So we're very fortunate with that. We typically do like the longer term, so 30 year, or we've done a number of 10 years as well. It's a little bit of the asset life that we're borrowing for, plus, what is the demand out there?

Kevin Martin (RBC): Thank you, Christine. We look forward to seeing TransLink in the capital markets in 2022. With that, we are going to pass it over to Mansoor for the next segment.

ESG

Mansoor Khan (RBC): Thanks Kevin. In the current environment, it's almost impossible to have any discussion with issuers or investors without discussing the topic of ESG. I would like to start off by giving a little bit of context around how the market has evolved over the last year. It is expected that global sustainable bond issuance is going to surpass $1 trillion for the first time this year. Looking at the Canadian market specifically, issuance reached ~C$24 billion this year, which is a 70% increase from last year. Green bonds accounted for ~65% of the issuance. We had around 31 issuers access the GSS bond market in Canada this year of which 10 were inaugural issuers. To date we have had around 50 issuers access the market in Canada. Looking at the municipal sector specifically, there has been C$575 million of issuance this year which is slightly higher than the issuance last year. There have been a number of interesting transactions which include City of Toronto's social bond, and City of Vancouver's inaugural sustainability bond. Other developments included City of Toronto publishing its first ESG performance report becoming the first Canadian public sector issuer to do so while MFABC also started reporting on the use proceeds for their bond issues. To kick start the discussions here, I will start by addressing the first question to Heather. The ESG performance report published by City of Toronto is the first by any Canadian public sector issuer. Can you please your perspective in terms of what was the motivation behind publishing the report and what you intend to achieve out of it?

Heather Taylor (Toronto): For City of Toronto, I thought it was important to lead in the sense of showing other public sector organizations that this is the right thing to do, and it is the way of the future and that it can be done. So, not leading for the sake of being the leader, but for the sake of trying to encourage, to nudge, to inspire other public sector organizations. We all know right now, there are no standards and so I think a lot of people are actually waiting for standards, waiting for the requirement to do it, and I really felt that the City had an opportunity. If you think about the municipal sector and the type of services we offer, we really did fit well under each of the 3 pillars and so it really was about setting a baseline, establishing the fact that we have these services, we've got these commitments, tie it together, integrate the narrative, and demonstrate to others it can be done. I don't think we have the luxury of time to make advancement in these areas. So that really was the driver and I will admit I think my team was quite reluctant to do it because it was for 2020 and it was when Covid had surfaced. There were other priorities at the time, and what I kept saying is, all of these challenges – climate and social challenges, social was being elevated because of Covid, climate was taking a backseat because of Covid but they weren't going away. So I think the fact that we did it during the pandemic actually signaled our true commitment to making this happen. For me, that was the real driver, trying to get out there to inspire and demonstrate to other municipalities, other public sector organizations that may not be as large, may not be as sophisticated, but even elements or threads could be replicated. We tried to do it in a way that could be replicated. If you think of municipal operations, we fit really nice - we are those frontline services, we are that level of government who really is tackling social and equity issues. We're living it first-hand. So, I felt that it was a huge opportunity to demonstrate what we do and to say what we want to do and where we want to go. At the end of the day, when you start making those outward commitments you are also held accountable. Also, I think the ESG performance reporting framework is really important. There were no frameworks and KPIs specific to municipal government issuers really. So, we looked at a multitude of frameworks, standards, and methodologies such as SASB, UNSDGs, GRI etc as a reference based on their relevance and usability for the City of Toronto. There was a little bit of method to my madness too. I want to be held accountable. I want to set standards and KPIs in the absence of being told what they are so hopefully we can help influence policy along the way.

For City of Toronto, I thought it was important to lead in the sense of showing other public sector organizations that this is the right thing to do, and it is the way of the future and that it can be done.

Heather Taylor, City of Toronto

Mansoor Khan (RBC): I think the work done by the City on this report is commendable as we fully appreciate the amount of effort that would have gone into it. As a follow up to that, it might be helpful to highlight some of the notable ESG targets that the City has established going forward. Also can you please share how your sustainable debt program (Green and Social Bonds) fits in that strategy?

Heather Taylor (Toronto): Under the "E" (Environmental) category, one metric that everybody is very mindful about is GHG reductions. We've got a climate action plan, but again, I didn't want that climate action plan to take a backseat – this way we got to elevate it. What are we truly trying to target? The city has declared a climate emergency. What are we doing? And so when we look at the greatest emissions, they are in buildings. So with our KPIs, we've now elevated the importance and we've made stakeholders aware. And stakeholders could be anyone from the risk side to the capital markets side to the investment side. We're elevating the discussion and that is another benefit of issuing the report. In the KPIs we're looking at GHG reductions to net zero, hopefully by 2040. Under the "S" (Social) category, we've got a "Housing Now" strategy on affordable housing which creates 40,000 units. So, again, a huge metric, lots to unfold within it, but it's out there. And so a government can be held accountable to whether or not it has made progress. The governance aspect, we all know that governments are held to account in compliance, but there's a nice way to integrate the governance aspect into what we're doing from the sense of how are we going about it and the how becomes very important. And so I look at the social aspect of housing, I look at the equity aspect of just who the City of Toronto is and what our diversity population is and how we're trying to elevate that diversity conversation. To tie it into the financing aspect, you mentioned that the sustainability financing is going to hit that that $1 trillion dollar mark. When we talk about our debt program, we have a C$1 billion issuance program. If we can actually go into the markets with a larger financing program, but focused on sustainability, then that's going to actually motivate the decisions that we're making in our capital plan. It is going to accelerate those decisions. So if we say there's more money available in this sustainable financing arena, then we need to have the assets to match up with that. That becomes a very significant driver, and again that was one of the main areas of thinking behind this as well.

Mansoor Khan (RBC): Patrice, in your investor presentation you highlighted many ESG targets that the City is trying to achieve. Can you give us a bit of an overview in terms of what those targets are? This year we also saw Vancouver issue its inaugural sustainability bond. This was the first sustainable debt issue since your inaugural Green Bond in 2018. Can you share your thoughts on the motivation behind updating the framework and the reason for the long absence?

Patrice Impey (Vancouver): Thanks Mansoor. Let me start by saying that we also read the City of Toronto ESG report, which was excellent. We were first out of the gate with the Task Force on Climate-Related Financial Disclosures (TCFD) reporting, followed by a number of other Canadian municipalities and we now have a Canadian network that are working together on that reporting. I think we are really leading the way in that area from a municipal perspective and Heather, I think you're doing the same from an ESG perspective, because I know my team is very anxious to prepare some ESG reporting as well. I think municipalities are leading the way in so many of those areas.

We were first out of the gate with the Task Force on Climate-Related Financial Disclosures (TCFD) reporting, followed by a number of other Canadian municipalities and we now have a Canadian network that are working together on that reporting.

Patrice Impey, City of Vancouver in the ESG section

We did our 1st green bond in 2018 as you mentioned. That was early on and we learned a lot and it was quite successful. Then we did have to go into the market with a regular non-green bond for the next 2 years because, as I mentioned, we use our debt primarily to finance renewal. We do have a lot of assets that need to be renewed and need the debt funding, but don't qualify specifically for the green. As Heather said, as a city, we are doing many things around the social side and so the sustainability bond framework we developed in 2020 is the same situation as Heather - the team really wanted to keep going and move it along to put that framework in place in 2020. That allowed us to broaden the assets that we can finance through the bond and expand the reporting so we can hopefully have more frequent sustainability bond issues because it will capture more of our capital plan. Similar to what Heather said, the organization is really seeing that and saying "how do I help make this capital program a green program, or a social program? How do I qualify?" Because there's a lot of momentum around that as we look at our capital plan. And so when we do our capital plan, there's the basic renewal condition, but we also use the equity lens and we use the climate lens and those are all parts of developing the capital plan, which are then the assets that we look to finance with our debt issuance. It's been a big part as our green agenda and as our social agenda has grown, it fit in really well, so it was great that our team was able to shift and develop that framework.

We've got a pretty aggressive climate plan. You may be familiar with the Greenest City action plan – the one that Vancouver had for 10 years, which just ended. The new one is the Climate Emergency action plan with much more aggressive goals to reduce carbon GHG emissions by 50% by 2030 and then to be carbon neutral by 2050. It's a very comprehensive program. There are 6 big moves across a number of different areas to get there and it's tracked with all the KPIs and other metrics. So it works out really well as far as the reporting on the green and sustainable bonds, because we've got all those KPIs in place. We've also pivoted around our focus on social issues in the city. Housing and homelessness and mental health driven by the opioid crisis were central areas in that emergency. So that strategy is also being developed on the social side and that will feed into the next sustainability issue for Vancouver.

Mansoor Khan (RBC): Sticking to the theme of ESG targets. Christine, from your perspective, what would you say are the disclosed ESG targets that you'd be looking at? I understand TransLink has a well-established Green bond program, but from an industry targets perspective, anything that you can share?

Christine Dacre (TransLink): We currently have our targets at 80% reduction in GHG and 100% renewable energy by 2050 but we're working on revising these targets, and looking to net zero by 2050 and 45% GHG reduction by 2030. Our low carbon fleet strategy is really the catalyst to getting to that 45% by 2030. We will be publishing a climate action strategy at the beginning of 2022 and then further in the year, the full detailed climate action plan that will include the detailed climate change adaptation plan for our infrastructure and operations. We talked about earlier what's happening in our region: the fires, the floods. Resiliency and climate adaptation are beginning to be extremely important. We need to break it down and look at what we can do. So now's a great time to be continuing on with our strategy. As you may know, many of our busses and rolling stock are using zero emission technology. The sky train and the trolley bus fleets, and we're looking at the electric bus fleets as well. Those are our targets that we have set.

Mansoor Khan (RBC): Speaking about the bond program, TransLink's last Green Bond issue was back in 2019. Any plans of issuing Green bonds in the near future and anything you can specifically highlight as it relates to the Green spending that resulted in your recent absence from this market?

Christine Dacre (TransLink): Yes, so we over borrowed a little bit in 2020. What we do typically is when we look at what we need to borrow is we look at what our net spend is on our projects. Whenever we can build up enough, we would rather wait and issue a larger size bond. Our investors have told us that liquidity is important. The size of our bond issues is important. So, we feel that we should hold off and wait until we have a more sizeable bond issuance. We also really like that look-back feature because then we can look back and build that size of bond, and we're not holding up that cash. The proceeds are not sitting there while we're spending the cash flow. So that's really important to us as well.

I believe without committing to what we're going to issue next year, it's looking pretty good that at least one of the issuances will be a green bond. We have taken a lot of questions about a sustainable bond, social bond and whether we are going to get into that market. We are going to look at our framework and look at what it means to move to a sustainable bond issuance or a social bond framework. Equity, diversity and inclusion is an extremely significant initiative for our organization. Green just fits really well for our business right now. But when we go into a sustainable or social bond, the challenges we look at is really making sure that the tracking and the verification of the benefits and outcomes of these projects will become increasingly important. So, I understand the social side of most municipalities, with the housing - we don't have that, but we do have significant impacts that we make to the communities and also in our projects around equity and diversity. We also need to increase the awareness and understanding of the criteria that we're using to identify and screen the projects. So we need to do our homework right now on the sustainable and social side and then look at what we could do to reframe or expand or build a framework that complements our green bond framework.

> We talked about earlier what's happening in our region: the fires, the floods. Resiliency and climate adaptation are beginning to be extremely important.
>
> *Christine Dacre, TransLink*

Mansoor Khan (RBC): Peter, this year, MFABC started to include use of proceeds mapped to UN sustainable development goals prior to each bond issue. What would you say was the motivation behind doing so? Also, MFABC has not issued a labelled bond to date, can you share what kind of challenges do you face in trying to do so?

Peter Urbanc (MFABC): Thanks Mansoor for the question. First, I want to mention that labeled bonds have been extremely helpful as a messaging platform for governments, but more importantly, for leading the development of useful frameworks and data- one of the driving forces around the development of this ESG data standardization, which I think, is the most important aspect of furthering the usefulness of sustainable finance.

On the other hand, we'd be remiss to not recognize that some labeled bonds, together with a whole plethora of ESG investment products, are being criticized, and for good reason, as greenwashing. The criticism doesn't just come from activists, I see it coming from investors themselves, - who, let's not forget, are the people for whom we are creating this data.

Operating in a sustainable fashion, doing all they can to help mitigate climate change these are things that are part of local governments DNA all across Canada. Politicians all across BC representing the largest to the smallest local government organization are being asked by their citizens to do things better and more sustainably and this is a reason why Heather mentioned that we need to be leaders around this - I completely agree.

Putting that aside, there are real structural reasons why MFA cannot currently issue a labeled bond with KPI reporting. I talked about our model where we issue a large bond issue but then we on-lend too many different projects and Members ranging from Metro Vancouver, who's our biggest borrower, to a town of 1000 residents. Part of that same bond issue can go to small local governments managed by a tiny staff complement who simply cannot currently report back to us in a standardized fashion.

We've been struggling with this at MFA because we know that our Members highly value sustainability, but most struggle with reporting on a standardized basis. Many investors I have spoken to currently not even really using the KPIs right now as they don't themselves have the capacity yet to decipher non-standardized data. We all agree that we need to standardize KPIs and investors should begin to incorporate them in their analysis. But at the end of the day many investors investor told us to focus on "use of proceeds" disclosures and trying to be as transparent as we can be around that aspect of issuance.

So last year, we started to disclose and map our proceeds to not just United Nations Sustainable Development Goals (UNSDG) but to green and social bond areas. Many investors told us, "This is fantastic, this is great. You're now telling us where the money's going, and in fact, we can include you in some of our sustainability portfolios now". We are not being included in all the specialty portfolios, some investors are using KPIs or must buy a labeled bond product, but they are a minority in the Canadian dollar market as far as I can tell.   100% of the proceeds we borrow can be mapped to UNSDGs and, in fact, most can also be labeled to green and social bond metrics.

> Starting next year, we will disclose upfront on a loan-by-loan basis, not in aggregate form, where our bond proceeds will be spent from a green, social and UN-SDG perspective.
>
> *Peter Urbanc, MFA BC*

We have an advantage at MFA in that we can disclose with certainty before every bond issue exactly where the proceeds will go. This is due to our legal construct, where, by legislation, we can only lend if a bylaw has been created and a host of other conditions are met. In fact, if we lend to do say an upgrade to city hall or to build a new fire station, and a bylaw has been created to lend towards that purpose, the entity has to spend the money towards that. If they can't spend the money they have to return the money back to the MFA.

Based on our "use of proceeds" process and our legislation, Bloomberg tagged our 2021 bonds as sustainability bond product - which is exactly what MFA was hopeful most investors would recognize even though our bonds are not "labelled" by a third party. MFA does not want to compartmentalize our issuance between bond types as we have a small issuance program and it impacts liquidity. We want to keep issuing one flavor of MFA bonds and we believe that ALL MFA bonds are sustainability bonds - as we can only legally lend for approved municipal infrastructure and all of our proceeds are mappable to Green and Social bond use of proceed categories. Bloomberg mentioned to us that MFA was a similar construct to many US utilities, other entities that don't issue third party "labelled bonds" but, because they disclose where all proceeds go the have been tagged as sustainability bonds.   So now on Bloomberg, every single one of our bonds going forward will be tagged as sustainability bond, but we want to go a step forward. We're going to continue to disclose in a more granular fashion.

Starting next year, we will disclose upfront on a loan-by-loan basis, not in aggregate form, where our bond proceeds will be spent from a green, social and UN-SDG perspective. We will be following ICMA principles in mapping each individual loan in a completely transparent fashion. As opposed to a broad categorization that we did in 2020 and 2021, investors will be able to judge for themselves whether they agree with the loan "use of proceeds" categorization. We are responding to investor feedback that labeled bond products such as "green" for example are not standardized and in many cases still require that investors spend considerable time understanding the issuer-specific choices of the categorization. Now labelled bonds do ensure that a third party confirms certain broad principles are followed - but the issuer still chooses how to categorize eligible projects and so investors often need to take the time to do the due diligence to understand the framework. We will be providing exactly what many investors have urged us to focus on which was much granular data as possible on the use of proceeds. Of course labelled bonds also do provide the benefit of KPI disclosures, but as I mentioned, few Canadian dollar bond investors I have spoken to are focusing on analyzing Key Performance Indicators (KPIs) currently - they are waiting for standardization to improve.

In fact, I would urge all my colleagues here to hear me out on this point. I think that governments can and should play a leadership role in helping standardize KPIs. Patrice and I have had many discussions about this. MFA is going to partner with both City of Vancouver and Metro Vancouver to help smaller local governments in British Columbia disclose KPIs – many have or can collect some of this data. But for some it is a big undertaking.   As I said, they just don't have the staff capacity to do this while large entities like a Vancouver, Toronto or Metro Vancouver have the staff and the capacity to help standardize and can play an instrumental role in helping roll out that standardization throughout the local government construct in BC. Once data standardization meets a certain threshold, and it may well be within the next 5 years or so, I believe that the need for labelled bond product for governmental issuers will completely disappear - and for the better of all I would say, as it will allow the market to transparently make better collective decisions without then need to rely on any third party opinions.

I would say that a big number of governments bond issuers, even today, that are willing to spend a little time disclosing "use of proceeds" information will be considered in many SRI portfolios. Certainly some governments are more sustainable than others, but the bonds they issue is taxpayer money raised to provide valuable societal services, and citizens want their governments to do the right thing. There are few incentives for governments to be greenwashing.

Mansoor Khan (RBC): Thanks Peter. It will be interesting to see where this goes because obviously there has been an enormous amount of discussion over the years on standardization when it comes to reporting. It is also pretty clear that some issuers specifically in the U.S. have taken different approaches to issue sustainable debt. The market continues to evolve, and it will be interesting to see where we end up in 5-10 years. Moving to Errico, I'm sure this is a question that has been asked numerous times in the past but I will ask it anyways. City of Montreal has not issued sustainable debt so far, is that something that the City if contemplating in the near future?

It's something we discuss often but one of the hurdles for us is the background administrative issues that are quite complicated. We're actually trying to figure out ways to make it simpler in order to issue these types of bonds, but every dollar we issue is linked to a specific project via the bylaws of the city.

Errico Cocchi, City of Montreal

Errico Cocchi (Montreal): It's something we discuss often but one of the hurdles for us is the background administrative issues that are quite complicated. We're actually trying to figure out ways to make it simpler in order to issue these types of bonds, but every dollar we issue is linked to a specific project via the bylaws of the city. For any specific issuance, we could have up to 300 or 400 lines of projects that go to a specific bond. It's a very heavy administrative task to go through all of this to determine green, sustainable, etc, pooling all of these projects together and then doing the reporting and the follow up after the issuance. So for us, it's quite a time consuming process and we don't have the sufficient resources. Recently, we've had discussions to simplify some of the administrative process I just talked about. For example, working on decreasing those number of total project lines. But, I get a sense that if we could decrease those types of administrative obstacles it could make it easier for us to do everything up to the issuing of an ESG bond. But there are also ongoing challenges of monitoring and reporting on these ESG proceeds after the issue. We're not trying to be the black sheep of municipalities or anything, because the projects are similar to every other municipality. We finance for the same things more or less. It's just a question of having the right structure for us to be able to do it in an efficient manner. I don't think that the City wants to hire 10 people just to find a project and then do the reporting. But then again, we'll see how things evolve but it's something we're considering, we're looking at it. I like Peter's way of looking at it as well. So, we'll discuss.

Mansoor Khan (RBC): Well, we hope you can get into this market soon and obviously we look forward to your inaugural transaction! Heather, I wanted to chat a little bit about Social bonds. Last year, the City priced its inaugural Social bond which was the first one done by any public sector issuer in Canada. Any color you can share around unique challenges as it relates to KPIs or other aspects of impact reporting on Social bonds?

Heather Taylor (Toronto): For the City's Social bond program, our Framework was developed in accordance with the International Capital Market Association's (ICMA) Social Bond Principles and received positive second party opinion from Sustainalytics, a leading ESG second-party opinion provider. Even though there is currently a lack of standardization in KPIs for social bonds, when you look at the projects that we financed, they were very specific shelter projects and the KPIs along with it are very easy to extract. I think the problem and the challenge will be to everybody's point as this evolves, and as this matures, we get into different elements of social type projects, it is going to become more complex. It's easy right now because our capital projects that we finance are very targeted and KPIs are easily identified. So, that's not a challenge, what it is, is trying to stay ahead of it and trying to anticipate the types of projects that we're going to have and the relevant KPIs. As we are in a planning cycle right now, and as we look at our 10 year capital plan, the motivation is to try and push as many projects as we can to have that social and environmental lens. Meanwhile, trying to come up with how are we measuring that progress? We've created a framework internally. That really is navigated now by what we know. But speaking to the standards; So, I was part of the International Sustainability Standards Board (ISSB) pitch to bring it to Canada, it's gone to Montreal. But we were part of the overall pitch for it to be to Canada. They've committed to having standards out by the spring. Those standards are going to actually help inform and shape what the KPIs could look like. I think from a KPI perspective, I love what Peter said. If we could actually standardize and just come up with an agreement across public sector organizations on how we want to tackle this, I think we would give the investor market a lot of confidence. I think this is one of the things I'm driving even at the National Board I sit on, the public sector accountability board (PSAB). This is going beyond the realm of accounting. This is actually going into more of a prospective type environment, which as an accountant, we're not overly comfortable doing. So I think it's about shifting people's mindset and thinking more forward, rather than retrospective and now I'm not answering specifically your KPIs. I can speak to how we're doing it today but I'm just trying to give you some insight as to what I'm thinking and the kind of conversations

I'm having because this is about shifting our mindset. The investors don't care about what you've accomplished. It's about what you're going to accomplish. They just need to check that you did accomplish it. So, it's about how do we come up with these metrics that speak about this forward thinking. That's a complete shift from reporting, because we always look at it in hindsight. I think the hindsight is going to speak to your credibility, but the forward thinking of what we're trying to target is going to speak to where we're going and what we're trying to achieve, and it really comes down to these outcomes. I could speak for hours on that specific point, but we were very targeted on our inaugural social bond, and the KPI's were very easy to identify based on what we financed. So, we developed our social bond framework by aligning ICMA Social Bond principles, which is the industry best practices, with the City of Toronto's overarching forward-thinking plans and strategies. But we still need KPIs for different categories of eligible project to be standardized based on inputs from industry experts, investors and issuers. Also, we need more focus to be placed on forward-thinking targets in addition to looking at accomplishments from the past. Keep your fingers crossed, there are going to be standards in 2022.

Mansoor Khan (RBC): Patrice, given the fact that you just issued your inaugural Sustainability bond, is there any color you can share in terms of the social aspect of the projects you have funded and perhaps from a reporting perspective, do you anticipate any challenges?

Patrice Impey (Vancouver): We follow very much the same process at City of Vancouver. We identify all of our projects as we're putting them into the capital plan. We have metrics and KPIs. In building the sustainability framework, we certainly took into account the reporting that was required. We wanted to do it because it made sense, but not if it's going to create a lot of extra work for the organization and so that was part of the decision, that we would go ahead with the sustainability framework that gave us that opportunity but was also very doable. I think we're pretty comfortable that we can meet the reporting requirements just based on the metrics that we already have in the organization. One of the examples that we did have, for instance, on the social side was a fire hall replacement and that was really around safety and it was upgrading it to seismic resilience as well. So that factored into the community side of things. That's one example of what we had where we have the metrics in place for a building, as well as community aspects.

Mansoor Khan (RBC): We heard earlier from Heather about the importance and role of ESG in an organization. The expectation is that if we push it hard enough, then the program volumes go higher and you would expect a larger portion of your regular borrowing program associated with ESG assets. Christine, from TransLink's perspective, what do you see as a big catalyst that can potentially result in incremental increase in green projects?

Christine Dacre (TransLink): Thanks Mansoor. I would say the development of the technology, and I mentioned earlier, about the battery electric and the infrastructure that's needed. What we really need is development of more zero emissions fleet technologies that have minimal capital infrastructure requirements, but have the same current range as diesel buses. Development of the ability to deploy charging infrastructure quicker, maybe taking 1 to 2 years, rather than 5 to 6 years to fully redevelop a transit center. We have our plans, where we want to go, but to get there faster is on the technology side. I mentioned that earlier as well, that we want to keep our options open for other zero emission technologies that might come around. I'm going to come to this group when I want to look at my sustainability framework and how to tie that in. I think these conversations are extremely valuable to learn from each other. As people have said, to help set those standards because when we issued our first green bond, it was really difficult. We wanted to have a really good impact report but with no standards, it was difficult as to what we were going to report. So, moving into something like sustainability or social bonds, which we haven't delved into really, having those examples of what those frameworks look like and what those KPIs might be will be really helpful to us. And I really like Heather's point about the metrics should be forward looking. I agree with that and looking at what our program is: What are we here for? What is TransLink here for? We are here to make the region a better place in all aspects. So we need to think beyond a specific project. I hear in people's passion about climate adaptation and resiliency and the social side of it, that's the exciting part, but we have a lot of work to do. I really appreciate hearing from the other panelists and I think I can learn a lot from them as we move forward on those types of bonds.

Mansoor Khan (RBC): Peter, as these ESG discussions have escalated over the last few years, what other changes have you noticed in terms of requests from your clients (municipalities)? Any notable changes as it relates to trying to learn more about ESG, investing requirements?

> Looking at the municipal sector specifically, there has been C$575 million of issuance this year which is slightly higher than the issuance last year. There have been a number of interesting transactions which include City of Toronto's social bond, and City of Vancouver's inaugural sustainability bond.
>
> *Mansoor Khan, RBC*

Peter Urbanc (MFABC): Most local governments are motivated to report on ESG-related data but they don't currently have the capacity to do so. Patrice and I have spoken about what efforts we can partner on to help standardization in the system - Vancouver has spent a lot of effort around this and we will work with them to leverage that effort for the benefit of the entire system.

That's one aspect – reporting. We've seen the biggest shift on the investment side. There is a growing interest for local governments to be socially responsible investors. Here again, I'll point to the City of Vancouver invests in our pooled funds and helped MFA design our fossil-fuel-free bond fund. MFA's trustees, who represent a broad cross-section of local government leaders, are unanimously supportive of MFA offering ESG investing options for interested Members whenever possible. As a result, all of our externally-managed pooled fund offerings must be managed by UN PRI signatories. That means that they are incorporating ESG analysis into the investment process.

Now, some local governments have gone a step further and have expressed a strong desire to shift their investments into strategies that help signal the importance of being green and address climate change. A small but growing number of municipalities in BC have made it a policy to focus on investments that are fossil fuel free in nature. There's a definition around FFF that we've adopted for several of our funds, and use as an exclusionary screen. We introduced a short-term bond fund a few years ago that screens out about 4% to 5% of the entities FTSE Short Term Bond Index - those would be the producers and transporters of oil, coal and natural gas as well as petrochemical companies that are in that index. That exclusionary screen definition is being used by a growing number of local governments and being incorporated into their policies. They are signaling that climate change is a pressing issue. We understand that many investors often don't like exclusionary investing, but for some of BC's local governments, it makes sense because it's something their citizens want and it is relatively easier than incorporating a detailed socially responsible strategy along the entire spectrum of ESG themes.

We've had several funds that are fossil fuel free and our latest fund, which we will introduce in January, is "carbon light" fund. The new fund is a global multi-asset class fund that will be used by local governments in BC to invest in long-term reserves - so this will be invested in global equities, global bonds and alternatives. This is similar to what the City of Toronto has done a few years ago, with a new prudent investor regime introduced by Ontario. They have segregated their reserves into short term and long term, and investing the long-term portion with third party asset managers in multiple asset classes. This is that same idea. We're creating more of a growth-oriented fund for local governments that will be a carbon light fund. Out of the 8 to 10 strategies that will make up this fund, almost half of them will employ a strict fossil fuel free screen such that this fund will have a lighter carbon footprint than the underlying benchmarks.

Mansoor Khan (RBC): Perfect, thanks a lot for that! I would like to thank you all for joining us today and I believe that's all the time we have today!

Kevin Martin (RBC): Thank you everyone for participating in today's discussion, we appreciate your insight into these key themes for the Canadian municipal sector. We look forward to checking in with you again in 2022!

SELECT CANADIAN PUBLIC SECTOR BORROWING PROGRAMS – 2021

The need and appetite for borrowing varies greatly between each Province and organization. To help understand the various key Canadian public sector borrowing programs and their characteristics, below is a comparison breakdown.

	ONTARIO	QUEBEC	ALBERTA	MANITOBA	SASKATCHEWAN	BRITISH COLUMBIA	NFLD & LABRADOR
PREMIER/CEO	Hon. Doug Ford	Hon. François Legault	Hon. Jason Kenney	Hon. Heather Stefanson	Hon. Scott Moe	Hon. John Horgan	Hon. Andrew Furey
FINANCE MINISTER/CFO	Hon. Peter Bethlenfalvy	Hon. Éric Girard	Hon. Travis Toews	Hon. Scott Fielding	Hon. Donna Harpauer	Hon. Selina Robinson	Hon. Siobhan Coady
CAPITAL/HEADQUARTERS	Toronto	Quebec City	Edmonton	Winnipeg	Regina	Victoria	St. John's
POPULATION ('000S)(1)	14,915	8,631	4,464	1,386	1,181	5,250	522
LARGEST SECTOR CONTRIBUTIONS TO GDP	Manufacturing, Real Estate, Finance	Manufacturing, Real Estate, Health	Oil & Gas, Mining, Manufacturing	Real Estate, Health, Manufacturing	Oil & Gas, Mining, Agriculture	Real Estate, Construction, Manufacturing	Oil & Gas, Mining
REAL GDP GROWTH(2)	4.4%	5.9%	5.9%	4.8%	3.1%	5.6%	3.0%
SHARE OF CANADA GDP (%)(2)	39.3%	20.3%	13.4%	3.3%	3.5%	14.0%	1.4%
BORROWING YEAR	Apr-Mar	Apr-Mar	Apr-Mar	Apr-Mar	Apr-Mar	Apr-Mar	Apr-Mar
RATINGS (MOODY'S/S&P)	AA(L) / Aa3 / A+	AA(L) / Aa2 / AA-	AA(L) / Aa3 / A	A(H) / Aa2 / A+	AA(L) / Aa1 / AA	AA(H) / Aaa / AA+	A(L) / A1 / A
% CAD ISSUANCE(3)	76%	70%	97%	55%	94%	58%	100%
RECENT INTERNATIONAL ISSUANCE(3)	USD, EUR, CHF, AUD	USD, EUR, CHF	NZD	USD, EUR, AUD	EUR	USD, EUR, AUD	n/a
2020/21 BORROWING (C$BN)(3)	61.6	37.5	26.7	7.7	4.4	20.1	2.8
2021/22 BORROWING (C$BN)(3)	42.0	24.5	11.8	4.9	4.2	10.5	1.5
REMAINING FUNDING FOR 2021/22 (C$BN)(3)	3.6	5.9	7.5	1.5	1.2	2.3	0.3
YOY INCREASE (C$BN)	(19.6)	(13.0)	(14.9)	(2.8)	(0.2)	(9.6)	(1.3)
2022/23 BORROWING (C$BN)(4)	45.3	32.2	11.0	n/a	n/a	n/a	n/a
DOMESTIC TARGET TERMS	5 / 7 / 10 / 30	5 / 7 / 10 / 30	5 / 7 / 10 / 30	5 / 10 / 30	5 / 10 / 30	5 / 7 / 10 / 30	7 / 10 / 30
PUBLIC DEBT O/S (C$BN)(5)	397.2	230.5	96.5	51.7	26.1	72.3	17.2
ACTIVE ULTRA-LONG ISSUERS(6)	n/a	n/a	$1.025B	$1.34B	$410M	n/a	n/a
MIN. CARVE-OUT SIZE(7)	$600M (5yr) / $500M (10yr) / $400M (30yr)	n/a	$200M	$150M	$100M	n/a	$100M
ACTIVE ESG ISSUANCE PROGRAM	Green Bond Issuer	Green Bond Issuer	n/a	n/a	n/a	n/a	n/a

(1) As of Q4 2021: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000901 (2) RBC Economics: https://thoughtleadership.rbc.com/provinces-enter-advanced-stages-of-recovery-in-2022/; https://royal-bank-of-canada-2124.docs.contently.com/v/provinces-enter-advanced-stages-of-recovery-in-2022-pdf (3) Source: RBC Capital Markets. Provincials, PSP & CPP based on Government Fiscal Year (April 1-March 31); Canada, CMHC and EDC based on Calendar year (4) Source: Provinces, RBC Capital Markets, figures based on most recent borrowing program (5) Source: Bloomberg (6) Issued within the last three GFY, term >35 years (7) Large order protocol, order placed to one investor * Table A2.1 (excl. RRB): https://budget.gc.ca/efu-meb/2021/report-rapport/anx2-en.html; Nominal Bond Results https://www.bankofcanada.ca/markets/government-securities-auctions/

NOVA SCOTIA	NEW BRUNSWICK	PEI	CANADA	CMHC	PSP	EDC
Hon. Tim Houston	Hon. Blaine Higgs	Hon. Dennis King	Hon. Justin Trudeau	Romy Bowers	Neil Cunningham	Mairead Lavery
Hon. Allan MacMaster	Hon. Ernie Steeves	Hon. Darlene Compton	Hon. Chrystia Freeland	Michel Tremblay	J-F. Bureau	Ken Kember
Halifax	Fredricton	Charlottetown	Ottawa	Ottawa	Montreal	Ottawa
999	794	166	38,436	n/a	n/a	n/a
Real Estate, Health, Public Admin	Real Estate, Manufacturing, Construction	Manufacturing, Real Estate	Energy, Agriculture, Tech, Manufacturing	n/a	n/a	n/a
4.0%	4.1%	3.6%	4.7%	n/a	n/a	n/a
2.1%	1.7%	0.3%	100.0%	n/a	n/a	n/a
Apr-Mar	Apr-Mar	Apr-Mar	Apr-Mar	Jan-Dec	Apr-Mar	Jan-Dec
A(H) / Aa2 / AA-	A(H) / Aa2 / A+	A / Aa2 / A	AAA / Aaa / AAA	AAA / Aaa / AAA	AAA / Aaa / AAA	AAA / Aaa / AAA
100%	100%	100%	100%	100%	0%	0%
n/a	n/a	n/a	n/a	n/a	USD	USD, HKD, GBP, NZD, AUD etc
2.2	1.4	0.3	373.0*	53.0	2.5	12.2
1.1	1.1	0.1	254.0*	40.0	5.3	7.1
-	0.3	0.1	67.0	-	1.3	-
(1.1)	(0.3)	(0.2)	(119.0)	(13.0)	2.8	(5.1)
n/a	n/a	n/a	n/a	40.0	6.0	10-12
5 / 10 / 30	5 / 10 / 30	10 / 30	-	5 / 10	3 / 5 / 7 / 10	2 / 3 / 5
15.3	21.0	2.3	940.1	258.4	13.9	37.6
n/a	$300M	n/a	n/a	n/a	n/a	n/a
n/a	$100M	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	Green Bond Issuer	n/a	Green Bond Issuer	Green Bond Issuer

SELECT CANADIAN MUNICIPAL ISSUERS

	MONTREAL	MFABC	TORONTO	TRANSLINK	VANCOUVER
RATINGS	A(H) / Aa2 / AA-	Aaa / AAA	Aa1 / AA	Aa2 / AA	Aaa / AAA
TYPICAL ANNUAL BORROWING REQ. (C$ MM)	850-1,500	950-2,000	900-1,000	200-650	85-100
2021 DEBENTURE FUNDING	~C$1.3 billion	~C$2 billion	C$1 billion	n/a	C$100 million
EXPECTED 2022 DEBT FUNDING	C$1.5 billion	C$1.325-1.725 billion	C$950 million	C$300 million	C$100 million
TYPICAL # ANNUAL ISSUES	4-5	2-3	3-4	1-2	1-2
TYPICAL MATURITIES	10-year 20-year	5-year 10-year	10-year 20-year 30-year	5-year 10-year 30-year	10-year
PUBLIC DEBT OUTSTANDING (C$MM)	10,372	9,142	8,472	2,980	985
CREDIT STRENGTHS	• Exceptional internal liquidity support and strong access to external liquidity for refinancing needs despite high funding owing to capital spending on its infrastructure deficiency • Strong budgetary performance with a proven track record of strong operating surpluses • Modest debt load and a relatively stable interest burden support the existing maturity profile	• Strong liquidity with current debt reserve fund in excess of $100 million • MFABC has the ability to levy a tax on all taxable land without provincial level government approval • Municipal long term debt of MFABC constitutes joint liabilities of the participating municipalities • Only 25% of sustainable revenues eligible to service debt costs	• Strong liquidity position with large reserves that allow for flexibility in accessing capital markets • Broad and diversified economy which serves as a major global financial centre • Relatively conservative policy of limiting annual debt service charges to 15% of property tax levy and to 20% of own source revenue • 6th largest government in Canada and 4th largest city in North America	• Strategic importance as the main regional transportation provider in British Columbia • Access to diversified revenue sources including tax revenues and transit income • Strong governance and institutional characteristics	• Exceptional liquidity coupled with high debt affordability • Strong and diverse economy underpins long-term strength • Stable revenue sources and operational flexibility cushion operating pressures • Strong governance and fiscal management, and supportive institutional framework
REVENUE SOURCE	Taxes (63%), Services (22%), Transfers (7%), Quota shares from reconstituted municipalities (8%) (1)	Client Interest Payments (58%), Investment Income (36%), Financial Service Fees and Premium Amortizations (6%) (2)	Taxes (Prop., Land Transfer) (43%), Fed/ Provincial Transfers (34%), Transit (5%), User Fees (5%) (3)	Taxes (46%), Fed/ Provincial Transfers (28%), Transit (21%), Investment Income (2%) (5)	Property Taxes (57%), Utility Fees (21%), Licence & Development Fees (5%), Parking (4%), Grants (4%), Fees (4%) (6)
OPERATING BUDGET	C$6.46 billion (1)	~C$398 million (2)	C$14.02 billion (4)	~C$1.9 billion (5)	C$1,735 million (6)
CAPITAL EXPENDITURES	C$19.54 billion 10-year capital program (1)	n/a	C$44.7 billion 10-year capital budget and plan (4)	C$647.9 million (5)	C$683 million (6)
EST. POPULATION (7)	1.7 million	n/a	2.8 million	n/a	1.1 million
OTHER CREDIT CONSIDERATIONS	Largest metropolitan area in Quebec and second largest in Canada	Created by provincial legislation to borrow on behalf of 28 Regional Districts in British Columbia	In 2009, Ontario passed the City of Toronto Act, 2006 (COTA) expanding the City's ability to levy taxes and increase revenues	The only issuing non-corporate transportation authority in Canada	Strong local economy with access to a growing and broad tax base which has consistently translated into strong operating results

(1) Montreal Budget 2022 (2) MFABC Annual Report 2020 (page 44) (3) Toronto Operating Budget Report 2021 (page 42) (4) Toronto Operating Budget Report 2021 (page 6) (5) Translink 2021 Business Plan (page 16, 39, 61) (6) City of Vancouver Draft Budget 2022 (page A-1, A-10, A-20) (7) Statistics Canada Census Profile, 2016; 2021 Census will be released on February 9, 2022

SELECT RBC-LED TRANSACTIONS IN 2021

Select Transactions for Canadian Government Issuers & Asset Managers

Manitoba
€160,000,000
0.70% Senior Notes due 2041
A(H)/Aa2/A+
Sole Lead
November 2021

Ontario Teachers' Pension Plan
£500,000,000
1.125% Senior Notes due 2026
AAA/Aa1/AA+
Joint Bookrunner
October 2021

Manitoba
US$1,000,000,000
1.50% New 7-year Benchmark due 2028
A(H)/Aa2/A+
Joint Bookrunner
October 2021

CDPQ
C$1,250,000,000
1.50% 5-year Benchmark due 2026
AAA/Aaa/AAA
Joint Lead
October 2021

British Columbia
US$2,500,000,000
0.90% Senior Notes due 2026
AA(H)/Aaa/AA+
Joint Bookrunner
July 2021

CPP Investment Board
C$750,000,000
0.90% Senior Notes due 2026
AAA/Aaa/AAA
Joint Bookrunner
July 2021

British Columbia
C$800,000,000
1.55% 10-year Re-opening due 2031
AA(H)/Aaa/AAA
Lead
June 2021

Canada Housing Trust
C$5,000,000,000
1.25% 5-year CMB Re-opening due 2026
AAA/Aaa/AAA
Lead
June 2021

PSP Investments
US$1,000,000,000
1.00% Senior Notes due 2026
AAA/Aaa/AAA
Joint Bookrunner
June 2021

Municipal Finance Authority of BC
C$975,000,000
C$475mm due 2026
C$500mm Re-opening due 2031
AAA/Aaa/AAA
Joint Lead
May 2021

Québec
US$1,000,000,000
1.90% New 10-year Benchmark due 2031
AA(L)/Aa2/AA-
Joint Bookrunner
April 2021

Ontario
£1,750,000,000
0.25% Senior Notes due 2026
AA(L)/Aa3/A+
Joint Bookrunner
January 2021

SELECT RBC-LED TRANSACTIONS IN 2021

Green Bonds and Sustainable Finance

Toronto
C$100,000,000
C$150,000,000
1.60% Social Bond due 2030
2.20% Green Bond due 2031
AA/Aa1/AA
Joint Lead / Lead
December 2021

Ontario
C$2,750,000,000
1.55% Green Bond due 2029
AA(L)/Aa3/A+
Joint Bookrunner
July 2021

CPP Investment Board
A$750,000,000
1.50% Green Bond due 2028
AAA/Aaa
Joint Bookrunner
June 2021

Québec
C$500,000,000
2.10% Green Bond due 2031
AA-/Aa2/AA-
Lead
May 2021

Maple Offerings

KBN
C$500,000,000
1.00% Green Bond due 2024
- /Aaa/AAA
Joint Bookrunner
October 2021

The World Bank
C$600,000,000
1.20% Sustainability Bond due 2026
AAA/Aaa/AAA
Joint Bookrunner
July 2021

ADB
C$1,250,000,000
C$750,000,000
C$350,000,000
0.75% Green Bond due 2026 &
1.50% Social Bond due 2028
(New Issue & Re-Opening)
AAA/Aaa/AAA
Joint Bookrunner
February, April, July 2021

European Investment Bank Group
C$600,000,000
1.90% Green Bond due 2025
AAA/Aaa/AAA
Joint Bookrunner
June 2021

IDB Inter-American Development Bank
C$750,000,000
1.00% Sustainability Bond due 2026
AA(H)/Aaa/AA+
Joint Bookrunner
June 2021

KFW
C$1,000,000,000
0.75% Green Bond due 2026
AAA/Aaa/AAA
Joint Bookrunner
February 2021

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