Capital Markets

2020 Public Sector Roundtable

JANUARY 2021

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PUBLIC SECTOR KEY THEMES

1 Canadian Economy Expected to Rebound in 2021 but the Outlook is Uncertain

Impaired economic growth in 2020 should set up for an uneven rebound across the provinces in 2021. There is a great deal of uncertainty in the outlook with many unknowns in terms of the severity of second/third waves and the speed and effectiveness of the inoculation roll-out process. Caution is required for the economic outlook as temporary stabilization programs (CEBA, mortgage deferrals, OSFI capital buffers, etc.) are scheduled to roll-off and could result in potential head winds for the recovery.

2 A Record Year for Bond Issuance by the Canadian Public Sector

2020 was an "off the scale" year for bond issuance activity by the Provinces. The sector broke a number of records in terms of highest aggregate issuance amount, highest number of new issues, largest annual funding programs for many of the provinces, highest number of carve-out orders by investors, largest single provincial issue size in CAD and EUR. The outlook for debt issuance by the Canadian public sector in 2021 is on a similar high trajectory with the Provinces continuing to deal with large deficit financing needs as the effects of the pandemic reverberate through the Canadian economy.

3 The Central Bank Effect

The Bank of Canada instituted a quantitative easing policy for the first time in its history in 2020. The Bank set up asset purchase programs for Government of Canada bonds, Canada Housing Trust bonds, Provincial and Territorial bonds, Corporate bonds, Bankers' Acceptance paper, Commercial Paper and Provincial Money Market paper. The initiation of these asset purchase programs in the spring had a soothing effect on the Canadian capital markets, causing credit spreads to retrace the sharp widening experienced at the height of the market crisis in the spring and tighten through the remainder of the year. Many of these asset purchase programs have been wound down as financial markets recovered throughout the year. The Bank's Provincial Bond Purchase Program (PBPP) is scheduled to cease its purchasing activity of provincial bonds by May 2021 and it will be interesting to see how provincial credit spreads react to the absence of the central bank as a buyer.

4 The Canada Brand Remains Strong Amongst International Investors

Despite successful foreign currency debt issuance by many Canadian public sector issuers throughout 2020, a great deal of capacity remains for Canadian issuers to pursue opportunities outside the domestic market, and Canadian government issuers are expected to continue to be active in international debt markets in 2021. Many of the Canadian provinces with more modest borrowing requirements like Manitoba and Saskatchewan will look at international issuance opportunities in 2021 if they can achieve financing costs in line with their domestic issuance programs. From the investor perspective, Canadian government issuers represent a stable, high quality and attractive yield proposition for international investors who have shown an increased participation in Canadian denominated debt of the Canadian public sector issuers.

5 Sustainable Investing Poised to Evolve and Accelerate for Canadian Public Sector Issuers in 2021

Canadian government issuers recognize the benefits of incorporating ESG principals into their financing programs, responding to the increased focus on sustainable investment issues driven by domestic and international investors. Many issuers are assessing how green/sustainable/social housing/gender bond issuance would complement their borrowing plans and evaluating the different options to access these markets. Many of the issuers and investors have observed a shift in the general focus away from a purely climate theme towards embracing social, sustainable and transition themes in the market, and some issuers like EDC are considering revising their existing green framework to support a broader group of socially sustainable projects. The investors stress the importance of ESG disclosure and reporting for their customers, and note that they are seeing a noticeable increase in demand for socially responsible investment products from their private client and high net-worth businesses. There is an expectation that these trends will become even more prevalent throughout 2021.

MACRO ECONOMY/RATES

Alex Caridia, RBC: Welcome everyone. Craig, how you do see the Canadian and provincial economic outlook for 2020 and 2021?

Craig Wright, RBC: I'll give a broad economic environment outlook. Firstly, any outlook in the current environment will be determined in the near term by the evolution of covid-19 and policymakers' responses to the second wave. Our assumption is that we are not going back into a full lockdown since neither the finance ministers nor the economy can afford it, so we are looking at more tactical round of tightening which is what we are seeing across provinces and across many parts of the globe. As we move forward we have seen a decent bounce in third quarter growth but it's very much the easy part of the recovery as the economy transitions from recession to a recovery. Economic growth in the third quarter came in at 40.5%. We have been allowing for some second wave impacts which will take some of the growth out of the fourth quarter. We expect 1% growth on an annualized basis for the fourth quarter, or basically flat on a non-annualized basis. So there was a big pop in the third quarter and its back to basically flat in the fourth quarter, and then into next year growth prospects improve. For the year 2020 as a whole this year we have a decline of just under 6%.

> Alongside weak global growth and high levels of economic uncertainty, we are still looking at a very modest and vulnerable recovery.
>
> *– Craig Wright, RBC*

Moving forward the risks are starting to tilt to the upside, with the enthusiasm around the vaccine production and distribution. Our growth forecast for next year is about 5%, but depending on how the vaccine rolls out the risks of that are probably increased on the upside.

Global growth is still challenged, we saw an upward revision to growth but it's still expected to be down on YoY basis by 4.5% by the IMF. We continue to see those challenges for Canada in terms of protectionist sentiment which was in place before covid-19 and accelerated through the pandemic. People tend to look elsewhere to blame in a weak economy and trade tensions will continue to rise. We have also seen a move towards bilateral trade agreements rather than multilateral agreements. Canada doesn't have a lot of political/economic weight so we do better in a multilateral world rather than a bilateral world. So maybe there will be some hope with the new administration in the US but we can leave that for a later discussion.

Alongside weak global growth and high levels of economic uncertainty, we are still looking at a very modest and vulnerable recovery. For exports and investments, we're not looking at much growth this year and even sluggish recovery next year given the elevated uncertainty and global challenges. Growth in Canada is going to continue to be driven by the consumer and anything consumer related (housing or retail spending) is a real 'V' shaped recovery. This reflects a number of factors but key among them is fiscal stimulus. If you look at the second quarter, wages and salaries earned declined by $22 billion and federal transfers to individuals rose by $55 billion, so there is a huge improvement in debt to income ratio and the savings rate in Canada went up substantially. Consumers have a lot of savings, that will buy some time through the next few quarters but eventually we will need more on the employment side to support the next leg of growth. Moving forward, all the attention will be on the business side. To the extent we see businesses being able to stay open, reopen, and expand, we will see employment prospects improve which will get us back to pre-crises levels as we move through next year.

Support for growth will continue to come from fiscal and monetary policy. We will see fairly continued aggressive spending plans and at some point we will start to look for longer term plans with a pro-growth agenda, but near term it is about managing the health and economic crisis, and then a later tilt to recovery. Monetary policy is very accommodative, maybe proving slightly less accommodative from QE perspective but still low interest rates are expected to hold over the entire forecast horizon.

When we look at the growth forecast across the provinces we can't just look at only covid-19 shock as there has also been a huge energy shock, and overlaying these two it's not surprising that the weaker provinces are those that are heavily dependent on energy. We have all provinces declining this year and the weakest in our perspective are Newfoundland and Labrador and Alberta. Alex back to you.

Alex Caridia, RBC: Thank you Craig, Let's turn to the public sector issuers for their view on the economic backdrop.

Nicolas Moreau, Department of Finance: After the record decline over the first half of the year, the economy has rebounded significantly over the last few months, we don't have the full reports as Q3 numbers haven't been published, we believe this rebound was mostly broad based. But more pronounced in consumer spending and residential investment. This is mostly reflective of pent up demand in those sectors, and the highly supportive effect of the fiscal and monetary policies. We have also seen sharp rebound in the labor market, overall about 4/5th of the net job losses so far have been recouped. Despite this strong rebound, the full economic recovery from the covid-19 recession has a long way to

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go. The pace of gains is now slowing, as the initial boost from the lifting of many restrictions and reopening of businesses is fading. Over 700,000 net job loss remains and 600,000 Canadians are still working sharply reduced hours. As a result, the outlook remains very uncertain, with the timeline for a full recovery and the long-term impacts on the economy still clearly being determined by the health situation. While the Department revised forecast will be released with the upcoming Fiscal and Economic Statement which is expected to be released over the coming weeks. Overall, the Bank of Canada latest forecast published in the October Monetary Report suggests that after declining by about 5 ½% in 2020, the economy is expected to expand by almost 4% on average in 2021 and 2022.

Alex Caridia, RBC: Mike, do you have an economic update from the Province of Ontario?

Mike Manning, Ontario: It has certainly been a very tough year, and we actually just put out our annual Ontario Budget a couple of weeks ago on November 5th. Our planning assumptions are relatively recent here, and are in line with what Craig and Nick were saying. We are using a consensus forecast with some prudence built in, looking at a decline in real GDP of 6.5% this year, and that has 0.4% of prudence built in, so private sector forecasts would be -6.1%. We are looking at a healthy +4.9% rebound next year, +3.5% the year after, and +2% in 2023. As everyone said, the uncertainty is extremely high, and what our government did this year that was different is that they had some alternative growth scenarios which they published as well. We have a faster growth scenario, which sees a growth rate next year of +7.5%, and we also have a slower growth scenario where the rebound next year is only +3.3%.

Alex Caridia, RBC: Guillaume, can you provide an update on Quebec's current economic situation?

Guillaume Pichard, Quebec: We have just released a fiscal update on November 12th. Like everyone it is going to be very challenging going forward. We have expectations for GDP for 2020 to decline by 6% and we do expect like everyone else a good rebound in 2021, around 5%, in line with the private sector. We only published our forecast for these years, and we will publish the rest in our budget next March. When you look at all the uncertainty surrounding covid-19 and the future of growth in the economy, it's still too early to put out long-term projections. There is some positive if you look at the economy, the housing sector, we see it growing up close to 10% in 2020 in terms of housing starts. Retail sales are at the level they were in February 2020, and overall the job market is around 95% of what we had before covid-19. There are other indicators as well, international exports are on their way to recovery in the near term, and you can say the same for manufacturing services in general. However, some sectors that are still expected to lag including tourism and entertainment, that's where the jobs and growth are still not there and it is unfortunately very hard to predict how and when a full recovery in these sectors will occur.

Alex Caridia, RBC: Steve, any comments on the economic backdrop in Alberta?

Stephen Thomspon, Alberta: We have a full economic update coming in soon. If you look at our last release, we were projecting a drop of 6.3% in-year for GDP. It's easy to forget at this point that prior to covid-19 we were already dealing with a Russian-Saudi oil price war that was taking a toll on the energy industry and on provincial revenues. Through the year we have seen a massive drop in energy investments, in the third quarter we saw some consolidations going on, so it's interesting to see what happens in the sector in the coming quarter. Unemployment has remained high but we have some resilience, obviously consumer spending is down and we are seeing a slowdown in population growth. I would suggest you hang on and look at our coming fiscal outlook release in the very near future.

Alex Caridia, RBC: Don, do you have an economic update from Manitoba.

Don Delisle, Manitoba: We have some challenges but we probably are in as good shape as we could've hoped for going into the first wave of covid-19. Manitoba actually balanced its budget last year, so that was cause of celebration that got lost with the issues this year. We used 9 private forecasters, and the expectation for the moment is a 5.2% contraction in the current year and a pop in 2021 of 4.8%. YTD we have been relatively lucky in the sense if you look at key economic forecasts such as real GDP and unemployment (lowest in the country), and private sector employment, merchandise exports, wholesale/retail trades, we are in the top 3 in the country in the latest statistics. Again it's probably as good a shape as you could hope, now it's no surprise if you watch the headlines, the second wave is probably hitting us harder than just about anybody in the country right now. We are in a lockdown at the moment, but we went through the first one fairly quickly, and as new information comes in on our economic forecasts we will see what happens – whether it is a V shape recovery or a more gradual recovery. As Guillaume said, the uncertainty right now is front and center.

Alex Caridia, RBC: Rod, in terms of Saskatchewan do you have any comments on the economic backdrop?

Rod Balkwill, Saskatchewan: I think the theme is holding true for Saskatchewan as well, which is that economically things are better than they looked initially in April when we produced our first forecasts. We had built three scenarios – good, bad, and ugly; the base case was the 'bad' scenario, and that was 6.3% decline in GDP. In Q1 we revised that upwards to -5.5%, and with our mid-year report, real GDP was again revised to -5.0%. Economically there was improvement from how the reopening happened more quickly, and how in Saskatchewan export markets weren't really impacted by covid-19 the way others might've been, as grain, fertilizers, and oil still shipped to export markets. That meant that the exposure on the real GDP side of ledger wasn't as great. With that said unemployment and job losses were significant, we don't see those coming back nearly as quickly as the GDP expected recovery, So while we think GDP can come back to pre-covid-19 levels in 2022, it is probably 2023 before employment completely recovers. I think I'll leave it there, but again better than expected but I would also temper that and as to Don's point, 'we don't know what's coming yet', so probably shouldn't get too optimistic.

Alex Caridia, RBC: Charles, do you have any comments on Nova Scotia?

Charles Allain, Nova Scotia: Our forecast for this year and next are broadly similar to the Canada average, and at our July 29th fiscal update we projected -6% this year and +4.8% next year. We've had a pretty good story in terms of covid-19 cases and deaths, a month ago I would've said we only had a few cases depending on the day, now we are up over 20, so we are still not out of the woods. I think the Atlantic bubble is working pretty well, and working better than most places in the country, nevertheless, we aren't out of the woods. Tourism is a big focus here, with revenues from tourism typically at $2.6-2.7 billion per year, which will be down $900 million - $1 billion, so it's down a lot this year. Obviously the retail sales are doing quite well, so that's back to normal but it depends on the industry you are talking about, as retail storefronts are not doing well, including restaurants. We have an update coming up in December, about three weeks from now, hopefully we will give you a better picture this year for the balance of the year. We won't have an out year forecast until we release a budget sometime early next year.

Alex Caridia, RBC: That brings us through all of the provincial issuers. Let's move on to the crowns. Dave, one of the questions you get asked on every investor meeting that I've had with you is around housing and your predictions for house price growth in Canada and leverage in the system. Would you care to comment on that?

Dave Ayre, CMHC: I would say the housing side has been a big topic this year. When covid-19 hit in March and things started to get bad, CMHC came out quickly projecting some fairly significant declines in home prices for Canada this year, in the 9-18% range. If you look back to March/April, there was a big temporary decline. What happened after that was that we saw what our economic folks believe to be temporary factors which kicked in to really boost the housing market, and we are now seeing levels that are approaching all-time highs in a number of areas. There's been a covid-19-driven shift towards detached homes, away from condos and apartments as covid-19 lockdown has seen people trying to buy more space. There was obviously a decent amount of pent up demand from that spring market when covid-19 hit and everything shutdown, that got pulled through into the summer market. Also, low mortgage rates have been a factor driving housing demand. I would say that going forward our economics folks see a lot of potential headwinds out there. We aren't providing any specific long term forecast at this stage, but CMHC does see risks to current house price levels for sure. Particularly, if we did get a significant second wave with major shut downs. Another factor that is worth mentioning is looking at the special treatment that OSFI has provided banks on Canada mortgages, so anyone who has been in deferral since the crisis, from the banks perspective that's been protected as they haven't had to set aside additional capital. Household indebtedness is something CMHC has expressed concerns around due to the risks it presents for Canadians.

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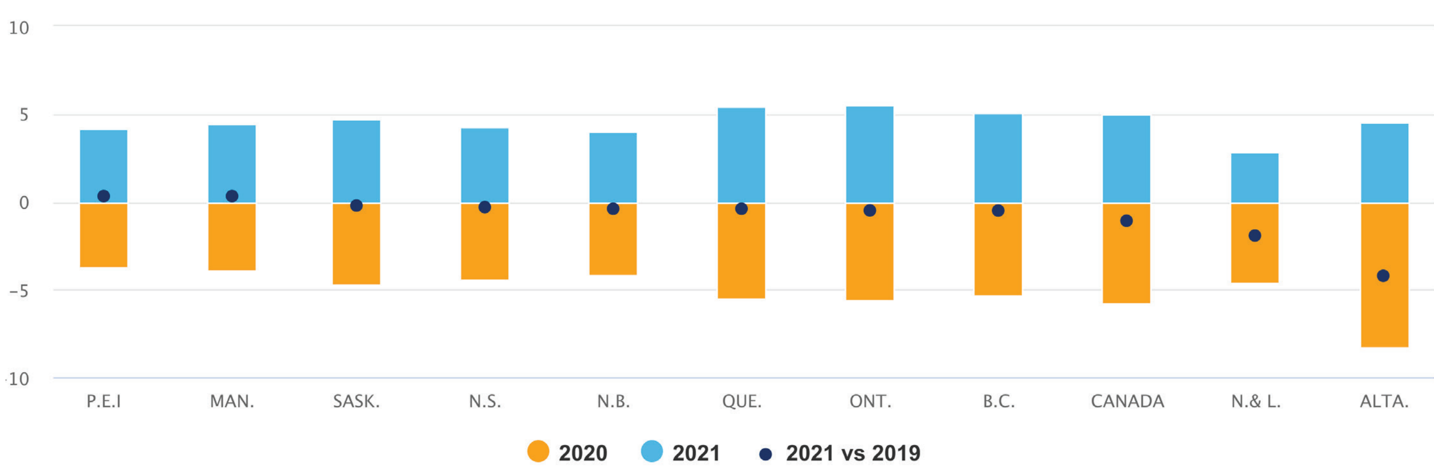
– Dave Ayre, CMHC

PROVINCIAL ECONOMIES TO RECOVER STRONGLY—THOUGH STILL PARTIALLY—IN 2021

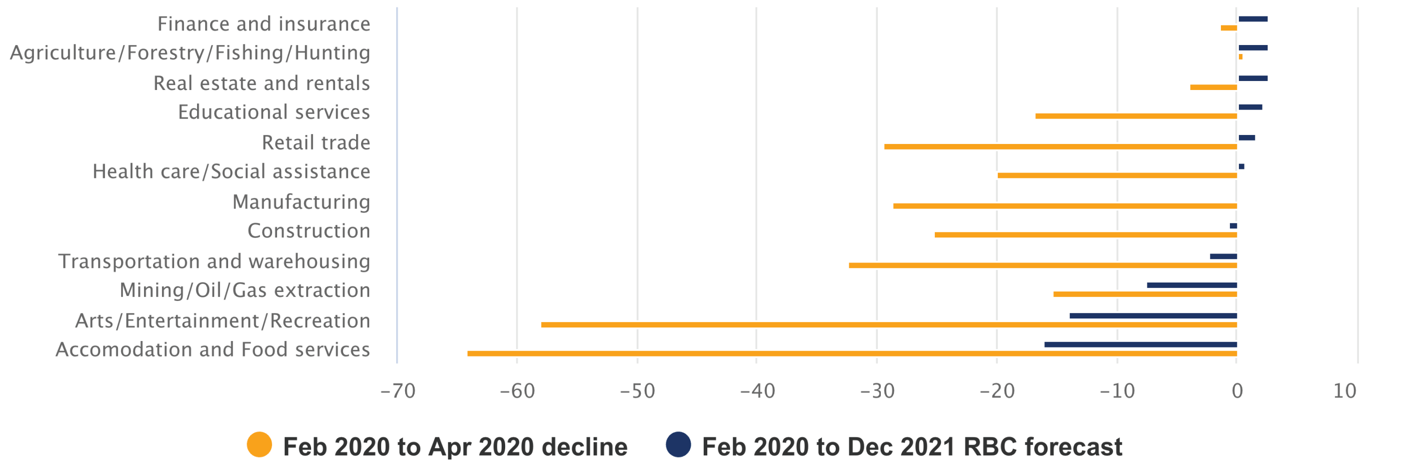
Real GDP, annual % change (2020 and 2021) and % change from 2019 to 2021



Source: Statistics Canada, RBC Economics

CANADA GDP BY INDUSTRY

% change



Source: Statistics Canada, RBC Economics

CANADIAN AND U.S. INTEREST RATES

				Forecast										Forecast		
	20Q1	20Q2	20Q3	20Q4	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	2019	2020F	2021F	2022F
Canada																
Overnight	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.50	1.75	0.25	0.25	0.50
Three-month	0.21	0.20	0.12	0.15	0.15	0.15	0.20	0.20	0.25	0.25	0.50	0.55	1.66	0.15	0.20	0.55
Two-year	0.42	0.29	0.25	0.30	0.30	0.30	0.35	0.35	0.55	0.75	0.90	1.10	1.70	0.30	0.35	1.10
Five-year	0.59	0.37	0.36	0.45	0.50	0.60	0.70	0.80	0.95	1.05	1.20	1.35	1.69	0.45	0.80	1.35
10-year	0.70	0.53	0.57	0.70	0.75	0.90	1.00	1.05	1.15	1.25	1.35	1.50	1.70	0.70	1.05	1.50
30-year	1.31	0.99	1.11	1.25	1.30	1.40	1.45	1.50	1.60	1.65	1.75	1.85	1.76	1.25	1.50	1.85
Yield curve (10s-2s)	28	24	32	40	45	60	65	70	60	50	45	40	0	40	70	40
United States																
Fed funds*	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.38	0.38	0.63	0.63	1.63	0.13	0.13	0.63
Three-month	0.11	0.16	0.10	0.10	0.10	0.15	0.20	0.25	0.40	0.55	0.70	0.75	1.55	0.10	0.25	0.75
Two-year	0.23	0.16	0.13	0.15	0.20	0.25	0.40	0.60	0.85	1.00	1.25	1.50	1.58	0.15	0.60	1.50
Five-year	0.37	0.29	0.28	0.40	0.50	0.60	0.75	1.00	1.05	1.15	1.30	1.55	1.69	0.40	1.00	1.55
10-year	0.70	0.66	0.69	0.95	1.05	1.15	1.20	1.25	1.30	1.40	1.50	1.65	1.92	0.95	1.25	1.65
30-year	1.35	1.41	1.46	1.70	1.70	1.75	1.75	1.80	1.85	1.90	1.95	2.00	2.39	1.70	1.80	2.00
Yield curve (10s-2s)	47	50	56	80	85	90	80	65	45	40	25	15	34	80	65	15

Note: Interest Rates are end of period rates. * Midpoint of 25 basis point range
Source: RBC Economics

Alex Caridia, RBC: Chad, in terms of the macro outlooks from EDC's perspective, how has lower economic activity impacted EDC's business model, and conversely with higher growth next year do you think that will have an impact on EDC?

Chad Buffel, EDC: From EDC's perspective, we are more counter-cyclical in a lot of the activities that we are involved in. Looking at the core products and business we typically do, we have seen two-fold increases in terms of usage of credit insurance and bonding. Our financing commitments haven't seen the same growth, but there have been increases across the board in terms of information needs and processing of changes. From a resilience perspective we have learned how to work with our core products, adapting them while creating other products in response to the pandemic. The Government of Canada's Emergency Business Account (CEBA) program, administered by EDC, has delivered essential liquidity to more than 660,000 companies. It provided businesses with working capital for their domestic and export transactions.

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>
> *– Chad Buffel, EDC*

Our role in helping facilitate companies along their supply chains or introducing them to new customers, will probably be facing some challenges under this environment. We have a large advice and export knowledge base, and for the last four years we have been growing that angle of our business. This has helped many exporters in the crisis, and it has increased our footprint to reach more exporters and provide them what they need. So, I think we are seeing a lot more leverage in terms of our knowledge base, whether it's the broad advice we are giving them, or the increased participation, with well over 10,000 visits, in our webinar sites. We've had over 60,000 hits on our website and are partnering with industry associations and chambers of commerce to let them know what support is available, but also to hear them so we can know what their needs are and how we can adapt our systems to support. So, there is a lot of activity going on, and like I say, for us it's a boom, and it really speaks to the stresses and needs that are out there.

So far, we are seeing exports decline slightly, and I think next year a lot of it will depend on the progress that is made by my colleagues here, and on the government side on how we can keep the lines and chains of trade open. To the extent that we can facilitate this, that is a role we will be playing. We are reasonably optimistic, and with our plans, programs, and ability to adapt these programs to the changing situation, we see opportunity for exporters.

Alex Caridia, RBC: Thank you Chad. The next topic for discussion is interest rates. Some of you may remember I did a poll last year about where we thought the 10-year Canada yield would be in a year and the average for all of us was around 1.43%, so exactly double what it is now, and the high was 1.80%. Maybe to kick off the rates discussion, to ask Craig to provide us with RBC's view and then I want ask the investors to talk about how they've dealt with their portfolios in this environment.

Craig Wright, RBC: Thanks Alex, and I'll say at the outset I wasn't on the call but we do have the same forecast as the Dean of Bay Street. So I was exactly the same as Mark Chandler would've been. As we move forward, from a short term perspective it's an easy call, we've seen a change in governor but no dramatic change in policy, with a couple of exceptions: one is that Governor Macklem talks about quantitative easing, whereas Governor Poloz talked about large scale asset purchases. Governor Macklem has also brought back something that was part of the recovery plan post the global financial crisis when he was with Governor Carney and that's forward guidance. The net result is that the Bank of Canada has locked in overnight interest rates at 0.25% for the foreseeable future. I think they've used most of the tools in their toolbox with the exception of negative interest rates. We hope and think they won't be doing that as we think given the experience of other central banks that have tried negative interest rates they are less inclined to do it. They still talked about an effective lower bound at 0.25%, and a theoretical lower bound at -0.50%.

I think the overnight rate call is fairly easy over the near term, and that's not much movement at all so we are steady and plugging in the forward guidance to the BoC forecasts takes you out to 2023. The risks to that view are to a mover earlier as the vaccine rolls out and we continue to see stimulus coming through the system. We could see a bit of a headline move at least in inflation as we move into next year, but that's probably more a story for market rates. So we could see some upward pressure on market rates, as markets are now, with inflation as low as it is, increasing positioning for that reflation trade. Fiscal and monetary policy makers are trying to get reflation, or at least prevent deflation. We will get some

> We could see some pressure on long term rates as we move forward, even with overnight rates flat where they are.
>
> *– Craig Wright, RBC*

level up move in prices from some low base effects and upward moves in commodities which will start pushing headline rates up that may feed in to that inflation story. I think it's more a concern than it will be in reality, but we could see some pressure on long term rates as we move forward, even with overnight rates flat where they are.

Alex Caridia, RBC: Thanks Craig, passing it over to any of the investors on the back of Craig's comments. How have your portfolios or investment strategies fared in the light of what Craig just said and reflationary pressures, as well as the low interest rate environment that we've been in this year?

Dominic Sicilano, Addenda: It has been a very challenging year for us, in terms of our duration strategy overall because of the macro process. I think we were a little bit blindsided by the full impact of covid-19, somewhere in the month of February and March. We still think the consumer has a lot of pent up savings at this point, I won't disagree with the call from Royal in the sense that I could see US 10-year rates heading towards 1.5% on the vaccine and a bit of economic follow through. We are going to have a president who will continue to provide stimulus, which we think is positive on pent up demand and probably move the dial on inflation. It can be seen as transitory, I still think there's going to be a bit of an uptick on that and rates should move higher in relative terms, but I'm not calling for 2.5% to 3% rates at this point. But we think also that potentially the curve could stay a little steeper in that environment as well.

Alex Caridia, RBC: Ryan, any comments from your side?

Ryan Goulding, Leith Wheeler: I would echo much of what Dominic said, I think the realization of sustained inflation is going to be further delayed than what we are seeing. A lot of this stimulus is targeting near term impacts, but for sustained inflation we need that year over year wage growth. There is just simply an enormous amount of labor slack in the market, and an incredible amount of reskilling that needs to happen in order for the wages to come up which is going to take a lot longer time. However, I do agree that we are going to probe a higher level of rates, but I think that we will see currency volatility pickup as well. So the release valve for all this stimulus is either going to be in the long-end of rates or in the currency. We are seeing long-end curve volatility pickup, and we think there will be opportunities there. I might not call for as high of a 10-year rate, because I think the higher that rates go there will be a feedback loop to risk assets, and I don't think risk assets will be able to sustain current levels if rates go too high. So I would see 10-year rates try and go over 1%, maybe 1.10% or 1.20% in the US, but that will put the brakes on the risk assets pretty soon, which could in turn drive 10-year rates back down a little bit.

Alex Caridia, RBC: Thanks so much. Abid on your side?

Abid Dobani, RBC Treasury: It feels like any time we get into a negative real rate environment, the challenges for investors are endless. Taking a step back, we have to be cognizant that the challenges I reference are generally reserved for those who have access to extremely cheap capital, as we tend to ignore those who don't have the capital to sustain a basic quality of life. We are closely following how the socio-economic divide will react under global regime shifts. This instability will be a bellwether for decades to come as the divide has reached levels that are unsustainable as the time for action has long passed. Actions taken by the federal and provincial governments alongside central and commercial banks will drive sentiment for the foreseeable future, but more importantly, drastically alter the quality of life for many in our communities who are most vulnerable.

Alex Caridia, RBC: Thanks Abid. Just in terms of the pension side, Renaud, I guess you are wearing two hats, one on the investing side and the other on the issuing side, can you comment on how the rate environment has impacted either, or both of those sides of the business?

Renaud De Jaham, PSP: Definitely. I can tell you that from an issuer's perspective, it can be attractive to see low yields and you would eventually want to extend the curve and issue long bonds. In reality, when you look at the debt programs in general, those products are more niche products, and the impact they have on the overall issuance risk and eventually also the average cost of debt is very residual. What we look at is the real demand to issue longer term and take advantage of the curve. You have to have demand, which is not necessarily always the case, so there might be opportunities. From an issuer perspective, we have to be prepared and eventually take advantage of those opportunities, if we see that there is demand from investors.

> What we look at is the real demand to issue longer term and take advantage of the curve.
>
> *– Renaud De Jaham, PSP*

DOMESTIC FUNDING

Alex Caridia, RBC: Thanks very much Renaud. That's a great segue into the next discussion point about domestic funding. This year has been an interesting year on so many fronts. We've broken a number of records in terms of deal size, number of deals, funding programs, number of carve-outs, you name it and we've broken almost every record. To get the discussion going I'll pass it over to Kevin to give a quick overview of what's happened domestically.

Kevin Martin, RBC: It's been a remarkable year in terms of the total issuance volumes that we've seen. Right now based on everybody's updated forecasts, we are expecting provincial issuance to come in around $155 billion, using the provincial fiscal year which ends March 31. That compares to $86 billion in total issuance from the provinces last year, so almost a 2x increase in borrowing requirements by the provinces in fiscal 2020. The good news is that this bond supply has been very well absorbed by the markets thus far, we calculate roughly $130 billion, over 83%, has already been issued and we are only 75% of the way through the fiscal year. Roughly two thirds of the provincial borrowing this year has been in the Canadian market, with about a third in the international markets. Within the Canadian market, the issuance has been fairly well balanced across maturity terms with about 35% in the 5-year area, just over 36% in 10 years and roughly 27% in long bonds. That is less long bond issuance than we have seen in prior years, but still impressive numbers nonetheless, and certainly a testament to the investors' collective willingness to absorb the extra supply in 2020. The Bank of Canada has also been a factor, starting its Provincial Bond Purchase Program (PBPP) in May. The Bank has purchased over $30 billion of provincial bonds in the secondary market in 2020.

When you look at the overall credit spread reaction that we have seen, if I told you those type of projected issuance numbers in January/February, you might have said that spreads would have to be materially wider. In fact, provincial credit spreads have been very well behaved since April. Now it wasn't all rosy of course, we saw quite turbulent times in March and April when liquidity was certainly top of mind for investors and issuance became a major challenge for most of the issuers, not only in the term markets but also the money markets in Canada. But with the Bank of Canada introducing their asset purchase programs, both on the money market and term bond side for provincials, that certainly was a shot in the arm for our issuers in the middle of April and we did see credit spreads tighten sharply into those announcements in April and continue on tightening through the second half of the year. Credit spreads for the provinces have been remarkably stable since the spring, they have moved in a 7-9 basis point range for Ontario in both the 10-year and 30-year bonds since August, so I think that is certainly a testament to the resiliency of the market since the very volatile days we saw in March and April.

Alex Caridia, RBC: On the back of Kevin's comments, how receptive has the domestic market been to your funding program, on the issuer side? Any comments you want to make on domestic funding year-to-date?

Guillaume Pichard, Quebec: Once we got out of the eye of the storm in March/April, honestly, so far so good. Both domestically and internationally, I think provincial bonds, the credit and how it's viewed, has been very well received. And as you mentioned its record issuance for provinces, just ourselves we went from a $15 billion program to just crossing the $30 billion mark for this year and that's quite an increase for us. So that's honestly quite an achievement for the market and for us. We are very happy because when we looked at the numbers early on, I'm not going to say we weren't nervous, I think a lot of us were nervous back in April, but you know having achieved that amount of funding this year is very positive, and international markets have been very receptive. We've done 4 international benchmarks: 2 in US dollars and 2 in Euros. We did our biggest benchmark ever, US$3.25 billion 5-years, and we've also done a very large Euro benchmark of EUR2.25 billion. So very receptive markets, and I know Ontario just did a super deal in Euros as well. Things are looking pretty good for now, but there is still lots of uncertainty in 2021. I guess it will also be a question for next year.

> Both domestically and internationally, I think provincial bonds, the credit and how it's viewed, has been very well received.
>
> *– Guillaume Pichard, Quebec*

Mike Manning, Ontario: With the domestic market we've had two different types of markets, first a disorderly market in March/April, where it was more private placement driven with carve outs and much wider spreads. Since the provincial bond purchase program started, things have stabilized with more regular access with narrower spreads. When we run our domestic borrowing program, we try to match our borrowing to investor demand. We've issued $26.9 billion in domestic syndicated issues, and that compares against $26.65 billion for all of last year. We've done 26 deals so far versus 31 for last year. What I want to note is that although the access has been good, the maturity structure has been slightly different. This year we have a 13.6 years average term, and that compares to 19.1 years last year, so we have seen a bit of a difference in the term structure of the demand that we've seen from investors in the domestic market.

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>
> *– Mike Manning, Ontario*

Alex Caridia, RBC: Anyone on the investing side, any comments on how they've found the domestic side to navigate as it tends to public sector issues this year?

Ryan Goulding, Leith Wheeler: I think the existence of the Bank of Canada programs has been more impactful than the actual uptake of the programs. When those programs start getting used then you have a problem, when they are not used then they are simply sitting there, then they are fantastic. We certainly saw an improvement in liquidity when those programs came in, and we tried to access them a couple times with not much success. But I am keenly watching those, because when they start getting used, I would be very concerned, as that liquidity would start to deteriorate. Liquidity for us has been pretty good since the few weeks in March when it wasn't. I think the right decision was to come in and provide that backstop, whether it is used or not.

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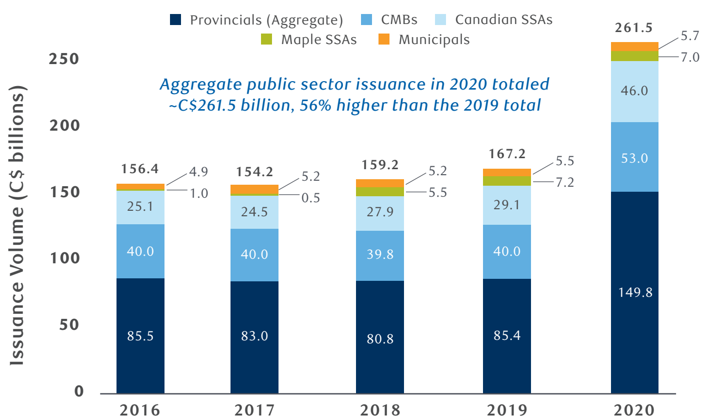
>
> *– Ryan Goulding, Leith Wheeler*

Dominic Sicilano, Addenda: I would echo what Ryan said. I think the impact and moral suasion of the bank can't be undermined, especially on a global perspective. You give people confidence, because if you do it elsewhere on the planet, and not in Canada, there could be some form of risk arbitrage or we might be seen in a position of weakness. The fact that the bank has stepped in morally to do that has had a huge impact on psyche and the ability of dealers to step in and price. Ultimately it was difficult but less chaotic in my mind then 2008 or 2010 because then we had the same type of situation we were worried about our counterparties failing and if we would ever get our money back or would the trade settle. That was not necessarily the issue here, it was purely getting bids. Our clients, our pensioners, and asset allocation clients were also very patient with us, which was the experience in 2008 and they gave us time to work to raise the cash if they were doing an asset allocation out of bonds into stocks and other stuff, that aspect for us really helped overall during those couple weeks. Since then the liquidity has been very good, the dealer community and issuers have been doing a good job given the context.

Abid Dobani, RBC Treasury: A major difference for domestic funding between the covid-19 and 2008 crises was Debt Capital Markets groups were quick to partner with both investors and issuers to ensure timely and successful new issue origination. These frequent, large deals accomplished two goals: liquidity and a trade point for the market to reprice. Combine these successful deals with the Bank of Canada liquidity programs, and it's no surprise domestic Canada was able to reprice back to pre-crisis spread levels quickly.

AGGREGATE PUBLIC SECTOR TOTAL ISSUANCE



Source: RBC Capital Markets

Alex Caridia, RBC: Thanks Abid. When we think about liquidity most of us think about liquidity on the bid size (can I sell my position), but last year you made an interesting point that it would be very hard to find high quality assets and a lot of that has held true. That's very much what we've seen, do you have any sort of comments on liquidity on the offered side and what you think for next year?

Abid Dobani, RBC Treasury: When I reflect on 2020, I consider: fiscal policy and monetary policy stimulus, delayed tax payments, delayed capital expenditures, and de-risking from the retail segment. We came into this crisis with banks having strong capital and liquid ratios compared to 2008. Combine liquid commercial banks alongside the huge injection of central bank liquidity, and now the market has more than it knows what to do with in the short term; what do commercial banks do with this cash when the market is at the effective lower bound? A good proxy is the Bank of Canada's large value transfer system (LVTS). From 2009 to right up until the beginning of covid-19 you had an average daily balance of roughly $300 million; since March we are averaging roughly $300 billion. Thus it's not surprising that with all this cash, banks have

> It's not surprising that with all this cash, banks have been pushing organic loan growth with record low mortgage rates. Even in the face of great mortgage origination, banks still are long cash and thus turn to high quality provincial assets to utilize some of this cash.
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been pushing organic loan growth with record low mortgage rates. Even in the face of great mortgage origination, banks still are long cash and thus turn to high quality provincial assets to utilize some of this cash.

When you combine this structural purchasing requirement from commercial banks alongside the Bank of Canada liquidity programs it is not surprising to see spreads for high quality liquid assets (like provincials and CMBs) through the pre-crisis tights in spread. As central bank stimulus will be present through 2021, it's hard to see any meaningful back up in spreads as the fundamentals of the sector will continue to be appreciated by portfolio managers. I reiterate my comment from last year: focus on asset allocation as we are at the effective lower bound in rates, negative real yields, tightening credit spread, and equity markets making consistent new highs. If there is a proper flight to quality out of equities and into fixed income, just imagine how low credit yields could go … all while inflation starts to rear its head.

Alex Caridia, RBC: Thanks Abid. Let's bring some of the issuers back into the discussion. Mike mentioned the lower duration in Ontario's overall issuance this year, but we have seen the flip side from a couple of the provinces on this call. Alberta and Manitoba both issued century bonds successfully in 2020, would either of you care to comment on the issuance of 100-year maturities?

Don Delisle, Manitoba: It was a relatively easy decision on our part, we do all the borrowing on behalf of Manitoba Hydro. If you were to take a look at the hydro dams they are currently building, the useful life of those hydro dams is somewhere between 70-100 years in duration. When we reached out to Hydro they were very comfortable in taking on that debt. So that was the rationale for us going ahead with those issues.

Stephen Thompson, Alberta: The 100-year issue was an investor driven trade. The rates from our perspective were fairly attractive. Not too long ago in Alberta we had a 10-year maturity cap, so there has been an evolution in the program that has allowed us to extend duration and how much we have to borrow.

Alex Caridia, RBC: Dave, the CMB program printed a successful $4.25 billion 10-year issue in November, which is historically on the higher end of the issuance size for the 10-year term. Do you have any comment on maturity allocation on the funding side or anything else that has changed for CMHC in 2020?

Dave Ayre, CMHC: Yes, this year as a response to the crisis we added a 3-year, that was a temporary move, and we did $6 billion in May and $3 billion in August. We have signaled we aren't doing anymore of that unless it is needed as a crisis measure going forward. To your point on the 10-years, we have increased our 10-year size fairly significantly this year, historically we were probably $2.2 to $2.3 billion sizes on those, and they've been up around $4 billion this year. This is something we were looking to do pre-covid-19 anyway, so it looks like it was related to covid-19, but it actually was something that was already in the works. It goes to a broader policy mandate of CMHC, where we are trying to help with supply of funding in the multi-family affordable housing space, and the 10-year plays an important role in that. The funding options do tend to be a bit limited outside of CMB, so we are looking to leverage CMB which we have this year. Starting in January there will be a new allocation methodology in place, which is a great role for CMHC and will help prioritize funding for lenders that are providing affordable financing.

Alex Caridia, RBC: Thanks Dave. From the Saskatchewan side, Rod, how have you found the year in terms of getting your funding program completed?

Rod Balkwill, Saskatchewan: It's been a different year, and like Mike's team in Ontario we have issued further down the curve. Traditionally we have been active in 10s and longs, as the Province hasn't typically been running many deficits and so generally its long-lived assets we have been funding. A combination of higher investor demand and also a steep credit curve in the early days tended to focus our attention on the front-end of the curve. Obviously it was far more receptive, just to your comments about the bank treasuries, I think that investor played a larger role in provincial term new issue markets market which drew us down the curve. So rather than lifecos, pension plans, and investment managers being the major players, the treasuries came in as a large buyer. They were there for $50-$100 million of a deal, to make sure they put all that liquidity they had to work. The average term of our annual borrowing dropped from close to 20 years to below 10.

Alex Caridia, RBC: Thanks, and Charles on your side, any comment on funding?

Charles Allain, Nova Scotia: It has been a pretty good year, we have done $1.7 billion so far this year and that's the biggest borrowing program since I've been here, which isn't that long, only four years. Nevertheless, it has been good, and we have another $800 million to do. One comment I would make is that getting a long deal done is more challenging, but it makes sense as yields are down where they are, maybe a bit less interest in it generally and the risk in the long-end is a bit more heightened these days. So it is definitely more challenging to get a long-deal done, but we can't complain as our recent deal was well received and we did some 3s and 5s in the spring and some 10 years later in the spring.

Getting a long deal done is more challenging, but it makes sense as yields are down where they are, maybe a bit less interest in it generally and the risk in the long-end is a bit more heightened these days.

– Charles Allain, Nova Scotia

Alex Caridia, RBC: Thanks Charles. I want to circle back to the purchase programs and get a perspective on how ready the Bank of Canada would be to re-instate those if needed. Given some of the comments here around being harder to get long deals done, how ready would the Bank be to extend the duration on those purchase programs?

Nicolas Moreau, DoF: As overall financial market conditions continue to improve in Canada, the use in several of the Bank of Canada's programs that support the functioning of key financial markets has declined significantly. Therefore, the Bank has started to discontinue some programs, such as the Bankers' Acceptance Purchase Facility (BAPF) and Canada Mortgage Bond Purchase Program (CMBP), and to reduce the frequency of others, such as the Term Repo operations. That said, as reported in recent communication and reports by the Bank of Canada, the Bank of Canada continues to monitor market conditions and, if warranted, may further revise its programs, including making changes to the size and maturity tranches of the term repo operations. The Bank remains committed to providing liquidity as required to support the functioning of the Canadian financial system. Any discontinued facilities can be restarted if necessary.

Alex Caridia, RBC: Does anyone else want to comment on domestic funding from either on the investor or issuer side?

Dave Ayre, CMHC: In terms of the CMB Purchase Program from the Bank of Canada, we found that hugely helpful. I think it came at the right time in March when things were volatile, CMB being a fairly big chunk of the market, it brought a lot of confidence to the markets and settled large spreads down. In the end it was only about 3% of CMB was purchased through it, but overall it had a very positive effect on our program and funding markets as a whole. The feedback we heard from investors was great and very well received, and I think great messaging when they did shut it down last month that they said they stand ready to restart these programs if they deem necessary, very positive from my point of view.

INTERNATIONAL MARKETS

Alex Caridia, RBC: Thanks Dave. Similar to the domestic markets, the international issuance side has been very positive for Canadian public sector issuers including record breaking deals in a number of different currencies. This is a good time to bring Jigme into the discussion to comment on the international markets before moving into the issuer specific questions.

Jigme Shingsar, RBC: Sure, it's been a banner year in the international markets, generally speaking, for the Canadians as well. Much like Kevin's comment with regards to the domestic market, it has been very impressive how well global SSA markets have absorbed additional supply – for the most part spreads have posted an impressive performance despite the huge uptick in supply. If anything Canadian issuance in the international markets has not kept pace with the broader increase in overall SSA supply so there is an argument to be made that there is, in fact, significant untapped potential or capacity for Canadian issuers outside the domestic market. This is great because we are still heading into uncertain times, and it's always great to have alternative sources of liquidity and diversification for this issuer base. There's no question that we have seen better funding market conditions than anyone would have expected in the face of increased borrowing requirements, particularly given all the challenges around liquidity in the early stages of the covid-19 crisis. Sustained low yields and tight spreads are an opportunity for Canadian issuers as they offer the combination of name recognition and relative value that investors are seeking. So to summarize, a very strong year in international markets, and lots of capacity for Canadian names and very optimistic that this will continue.

Alex Caridia, RBC: Thanks Jigme. Chad, perhaps this is a good time for you to jump in, given EDC's funding program is almost entirely offshore. How have you found access to markets on the international side in 2020?

Chad Buffel, EDC: Our program is predominantly focused on the international side, we were well received in terms of the investment products we were offering right up to year end. Looking at the Euro benchmark, Sterling, and US dollars, in each of those markets we were able to tighten in pricing and keep ourselves relative to our peer group. Subsequent to that when we were faced with the crisis, it was a bit tougher, like everyone was saying. Despite this we were able, on the short-end, to find product, which was a bit more expensive. In this environment we saw some of our larger peers (like the World Bank) coming in and establishing new benchmarks and levels. As the summer went into fall, we saw levels tightening in. Subsequent issues from many of you as well, helped give people a lot of confidence in the kinds of issuers that were out there like us.

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>
> *– Chad Buffel, EDC*

The Canada brand certainly has a lot of cachet in the markets and leveraging that helps. Stability around how our country and financing are perceived gives the international community a lot more confidence as well. So, I think there's a lot of benefit we came into the markets with, certainly after covid-19, and we have been building on that and showing the value that Canada provides. I don't see that changing, I think there will be more capacity going into next year. Having more players helps the overall brand, and it's good to see several of you are involved across currencies, in Euros, US dollars, and sterling. It's good to see the brand is doing what it can and it's bringing awareness for all parts of it.

We unfortunately did not get involved on the public side post-covid-19. Since the pandemic, all that we have issued is on the private side, and that will change into next year. We have been successful managing with privates, but we would still like get back into the public side. The panelists here have been keeping that banner growing, so kudos to the whole Canada program.

Alex Caridia, RBC: Renaud, do you have any comments on PSP's plans to look outside of Canada?

Renaud De Jaham, PSP: I was impressed to see the numbers and the size of issuance that we saw in the pension markets in general, SSA's and Canadian SSA's. At the beginning of the crisis, in March, April, May, June, we stayed on the sidelines, and we took advantage of the good reception in the Canadian market to do a great transaction in August. Having said that, it is in the plans for us to also go global, and our base case is to launch a global program for 2021. We will certainly have the capacity of issuing once and even twice in 2021, in the US market, so that will be the base case. Our plan to establish a curve will take certainly two to three years. This is why it is unlikely that we come to the Euro markets, but definitely we will monitor that market, and if there is an opportunity down the road in 2022 maybe, we could eventually start issuing in this market. But one thing that is important in the way we manage the borrowing program, I think we've established good credibility in Canada. We've been a more frequent issuer in the domestic market, so there is no way we will abandon the Canadian market. We want to ensure that everywhere we issue debt we will establish sustainable programs, and this is also the case for Canada. Because we are going to start issuing in the US market, it doesn't mean we will abandon the Canadian market.

We want to ensure that everywhere we issue debt we will establish sustainable programs, and this is also the case for Canada.

– Renaud De Jaham, PSP

Alex Caridia, RBC: I'm sure that will be music to the ears of all the investors on this call. Mike, you have been successful in printing a Euro trade a couple of days ago, could you walk us through that trade and your activity in general in terms of off-shore this year?

Mike Manning, Ontario: For sure. Maybe I'll start with where we are in term of international borrowing. We have issued about 11.3 billion in international markets, that's about 23.9% of our program at this stage, and that's roughly in line with our expectations, as we targeted roughly 20-30% in international borrowing for this year. The surprising thing for us is that normally it's predominately US dollars and some Euros and some others, but this year the Euro component is much bigger, about 7.2 billion so far, with the US component around 4.1 billion. We followed the recent Quebec Euro transaction, and hats off to them for a successful deal, and we thought that there would be follow up demand for us. We were quite surprised that the demand was bigger than what we anticipated. To be honest we were thinking if we could do EUR1.5 billion we would be very happy, but our book went up to EUR4.3 billion and we ended up printing EUR2.5 billion. It was a 10-year issue and we had over 130 investors, so we were very satisfied. I would say that Canadian provinces may be in the sweet spot for Euros as they offer high credit quality, good yield pickup, and with that yield pickup they get closer to having positive interest rates, thus being attractive to investors overall.

Canadian provinces may be in the sweet spot for Euros as they offer high credit quality, good yield pickup, and with that yield pickup they get closer to having positive interest rates, thus being attractive to investors overall.

– Mike Manning, Ontario

Alex Caridia, RBC: Thanks Mike I think that's a very good point. Opening it up to the other provinces, either that already issue in Europe like Steve on the Alberta side, or that may have plans to issue in Europe or other international markets.

Stephen Thompson, Alberta: I agree with Mike on Canadian provinces in EUR, and from Alberta's perspective the international public markets are a core part of the funding program. Given this is our largest program ever, we are actually a little behind where we would like to be in terms of having access to both dollars and Euros for various timing and logistical reasons. We do expect to be active in the next few months there, but we're in blackout right now given our budget is coming out in a few weeks. It's been interesting to see just how familiar the investors have become in Europe particularly to the credit, as you know we started our first Euro issue we spent a great deal of time explaining to people what exactly a Canadian province was and now we are talking about fiscal frameworks and transfers. So for us as long as our program remains of any significant size, we will look to do at least 30% offshore, and more and more is coming out of Europe. So we will be active and international issuance will remain a core part of the program for a long time.

Alex Caridia, RBC: Thanks Steve, appreciate that, and to any of the other provincials who want to comment on potential activity or new markets you might want to open up?

Guillaume Pichard, Quebec: I will comment on some of Mike's comment here and earlier Alex, you alluded to negative rates. I want to highlight something interesting that we did do a Euro in 2019 at negative rates. We saw some pushback from some investors, and they told us that it won't be bought because it's too close and they aren't putting any orders in the book. If you go forward a year in 2020, we issued a bond with a yield of -0.02%, no investors backed off, the investors that signaled that they wouldn't buy a negative yield came in the book, and so it's really two-folds from a year ago from now with regards to negative yields. Just want to put that out there.

Jigme Shingsar, RBC: One comment with regards to international demand for Canadian issuers in a much larger and the more crowded market. I think this speaks to the importance of continuing to maintain direct and regular dialogue with investors and the overall Investor Relations program. We have been fortunate this year that the domestic market has been so robust for Canadian issuers and the reliance on offshore markets has not increased as much as some might have expected. But I still believe that it is important for Canadian issuers to collectively help maintain the incremental value of the Canada brand with continued investor outreach. I think the very successful Canadian international transactions we have seen this year are a testament to the investment our issuers have made in Investor Relations.

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>
> *– Jigme Shingsar, RBC*

Dominic Sicilano, Addenda: If I could just add something else on the client side, which is really interesting is that I haven't experienced this during the last 10-15 years at Addenda, but since June I've had a lot of contact from US potential clients that want to divest away from the US dollar with its devaluation, and the political instability, the geopolitical turmoil, Turkey Russia, and they are looking at Canada as a bit of a safe heaven, and it's not for returns but more of a currency diversification story. So I thought that was interesting, and we have made a couple of pitches to those clients as well, and that should help support them as they market those clients to come on board.

Alex Caridia, RBC: I think that is a great point, because when we talk about Canada in the international markets we have talked about government issuers issuing in Dollars and Euros. The other side of that coin is international investors coming into our market, as we have seen a huge increase for demand of high quality Canadian dollar denominated assets, out of Asia in particular, but also out of US and other regions. I'm wondering from an investor perspective, perhaps Ryan or Abid do you have a comment on this. Do you see international investors coming into this market as a good thing? In terms of providing more liquidity and exit points for the dealer community, or do you see it more of as a crowding out, and more of a bad thing?

Abid Dobani, RBC Treasury: From our perspective, Canada is a relatively small market, and there is more than enough demand between asset managers, pensions, insurers, and commercial banks for provincial debt. As soon as we have international asset managers involved in our market, less product is available for those with organic needs. We of course welcome our global asset management community into the Canadian debt market as diversification (for both purchaser and issuer) is a positive thing, but I worry about the valuation of credit spread versus what fundamentals dictate they should be. We keep our eye on the space, but the market is what the market is and we will just have to adapt accordingly.

Ryan Goulding, Leith Wheeler: You know when I look at the credit metrics and what spreads may do for any of the issuers, the way by which you guys manage your programs is a huge fundamental input. It's not just the economics of each province, it's how you manage it. Steve mentioned earlier how the sophistication of his program has increased since he has been there, and I would totally agree. The ability to access these markets is imperative to your spread levels, and having these international dollars in Canada is very important, but it does introduce a very big impact and risk, I commented on this last year that these international flows tend to be large for Canada, which is small market, and indiscriminate. When they decide they don't need Canadian dollars anymore, they won't care what the spread is. That potential is always at the back of our mind, and we are very cautious about what specific issues we own and where we are on the curve and try to find the extent in which those are owned by international, and maybe shy away from that a little bit. This is because that liquidity gap or air pocket is a big one if it happens.

Alex Caridia, RBC: Don, moving on to Manitoba's international funding, we have seen some of the transactions done this year being long-dated. 20-30+ year EUR private placements – do you have any comment on these deals?

Don Delisle, Manitoba: So we're a bit different than some of the other bigger provinces because of our borrowing program. Our intentions earlier this year, around March, April, and the spring, was to go to the US market, because that is market we like to go to once a year anyways just given the size of our borrowing program. And then of course we had that fire drill and we ended up with so much domestic issuance that we just don't have the capacity right now for a benchmark USD issue, so we will look in the new fiscal year to try and get back to that market. However we will take advantage of borrowing opportunities in just about any currency. Our borrowing program this year will be about $8 billion, including pre-funding. Compared to the likes of Alberta, Ontario, and Quebec, it is pretty small. We will take advantage of international opportunities as long as it's cost competitive with domestic levels. We will continue to monitor all of those markets, we have an EMTN program, we have a formal Australian dollar program, and so we will continue to take advantage whenever we have the opportunity.

Alex Caridia, RBC: Thanks Don. Nic, we haven't seen a Canada USD denominated deal in the market for quite some time, any views on the likelihood of a transaction in the next little while?

Nicolas Moreau, DoF: Thanks Alex. The Government of Canada has been active in the international markets over the last three years and our objective remains to be active in this sector at least one a year. Therefore, you can expect that the Government of Canada is planning to issue a US deal before the end of this fiscal year.

Alex Caridia, RBC: Thanks Nic. Would anyone else care to comment on international issuance?

Rod Balkwill, Saskatchewan: We re-entered international markets this year with a private euro deal– the first time since 2006. We started the work for this 18 months ago, as we think it's important to go the U.S. and overseas markets and see what else is there. We would be a smaller player – but so far our experience is that there is interest from international investors especially given the Province's higher credit rating. We will continue to opportunistically issue internationally when funding costs are beneficial compared to domestic levels.

We will continue to opportunistically issue internationally when funding costs are beneficial compared to domestic levels.

– Rod Balkwill, Saskatchewan

GREEN BONDS AND ESG

Alex Caridia, RBC: Thanks Rod, appreciate it and look forward to it. Nic, just moving over to ESG and setting the scene at the federal level, we have seen a lot of sovereigns look at the ESG market and green bonds. We have seen the dual-bond approach from Germany, and a couple of weeks ago the UK announced a green Gilt potentially for 2021. Do you have any thoughts you can share around what's happening in Canada on that side?

Nicolas Moreau, DoF: The Department is currently working to assess whether a federal green bond would be beneficial to Canada in the context of the Government's debt management strategy and its climate policy objectives. As part of out Debt Management Strategy consultations the Federal government has surveyed market participants on potential Government of Canada green bond issuances. A federal green bond may help demonstrate the Government's commitment to the environment and leadership role in supporting green financing and making progress on environmental challenges.

Alex Caridia, RBC: Thank you. This has certainly been a growing theme. Perhaps this is a good point to get an update from Province of Alberta on the prospect of ESG issuance.

Steve Thompson, Alberta: There's a couple of things, fundamentally, the whole ESG space has become more well-defined but it's also become broader. It's not this narrow green bond focus, so the space has expanded to include transition and sustainability. When you talk about a country talking about being carbon neutral or net zero by 2050, and you are a large oil producer, you really can't have that conversation without including your large oil producing region. Is the ESG space now accommodative to being meaningful and not disingenuous in terms of transition, in terms of moving on to natural gas and on to renewables? Is there a space for sustainability? Absolutely. I think that is where the most productive conversations will happen, and I think ultimately that will result in our inclusion in some kind of funding program, around sustainability or transition. I think the conversation on the actual program processes have to happen first so I don't think we're going to lead the way by the finance department taking over the ESG conversation for Alberta but we will be front and center. So no, I'm not changing what I said about me looking at green bonds as an arbitrage opportunity, an opportunity to access either a different investor base or a lower cost of funds or a different risk profile. Those will be my primary focus points once we get to that space. But I do think the sustainability platform itself has evolved to a point where it's not disingenuous for a large oil producer to be part of the conversation.

When you talk about a country talking about being carbon neutral or net zero by 2050, and you are a large oil producer, you really can't have that conversation without including your large oil producing region.

– Stephen Thompson, Alberta

Alex Caridia, RBC: Thank you Steve, I think you will see a lot more ESG issuers move to social and sustainable and away from a pure climate theme, and on that point Dave, Bloomberg just published an article before this call talking about social housing bond issuance from CMHC. It was certainly well timed, any comment on that?

Dave Ayre, CMHC: CMHC is working on a potential sustainability framework for our securitization programs (CMB and NHA MBS) with industry partners. CMHC has obviously been pretty explicit in our corporate objective to promote housing affordability with an aggressive target that by 2030 everyone in Canada has a home they can afford that meets their needs so the reality is that any ESG issuance on a CMHC sponsored program that we get into, conceivably would include affordability linked mortgages to help with this objective. I think there would be good value and it does seem to be something we are consistently hearing from investors as something that there would be a lot of demand for.

Alex Caridia, RBC: Thanks Dave. Moving on to the investor views on this before going to Mike and Guillaume, who have been trailblazers in this space in Canada. Dom on your side you have been extremely active on the green bond side, and I was wondering if you have any comments on how that portfolio is shaped over the course of the year? And perhaps you could comment on the broadening to ESG, social, or sustainable issues as well?

Dominic Sicilano, Addenda: I get more calls for my green bonds than any other bonds in my portfolio from the dealer community, so they are always showing me switches from those things, and I tell them that I can switch from one green to another because they are hard to come by. So Ontario, and Quebec in those trades for sure. We are really focused on ESG, and I think that our clients are really moving away from fossil free, which was a theme we heard for a long time which was adamant. Now customers are really talking more towards transition and towards ESG bonds, and I don't have a pitch with clients where ESG is not a focus of the pitch. Clients will say you know we are moving towards that or we have to take this into consideration if we buy fixed income.

We are really focused on ESG, and I think that our clients are really moving away from fossil free, which was a theme we heard for a long time which was adamant.

– Dominic Sicilano, Addenda

I think there is a spot for Alberta at the table for sure, in this transition and social environment, Canada does a lot of good things socially and it's not always about just green and oil. There's a lot of things that can be done and the most important thing we find for us is the reporting as well. I know it's slightly tedious and boring, but the Provinces of Quebec and Ontario, and some of these municipalities do a great job of providing us with concrete evidence of reporting. It is a lot of work for them to do that, but that has paid dividends because there is a huge trust factor from the investor community relative to those projects being real. That's an extra layer of effort that has to be done by the issuer for sure, but that is something extremely beneficial. I don't think this is going to go away, this isn't the 1997 water bonds and stuff like that, but a continued trend and the younger investors are making it a requirement. The more education, because moving away from this idea of no more fossils, people are realizing that it's not the right approach if you want to make sustainable change.

Alex Caridia, RBC: Thanks Dominic. With those comments in mind, Ryan, any views on ESG in your respective portfolios?

Ryan Goulding, Leith Wheeler: We don't have any ESG specific fund at all but similar to what Dominic was mentioning, we have a few custom mandates that are largely exclusion based mandates, so kind of the dip your toe in the water, ESG easier style. But where we are getting more interest is from our private client high net-worth business, whereby we are getting demand from, not the exclusion, but more transition social impact type of bonds. So up that ESG aggressiveness scale, and those are the ones that are a little bit surprising to us, we thought it might be the foundations, university's etc. But no these are family offices and high net-worth individuals who are saying we would like to put x amount into it. it is up to us to work with them because quite often it is a very bespoke mandate as you have to write what they want to do, and really guide them to what's practical, and how this market is evolving. I think that we will see much more interest in our private clients, and that's going to ramp up for us probably quicker than our institutional side.

Alex Caridia, RBC: Thanks Ryan. Mike you and Guillaume are the trailblazers in Canada, and certainly with Ontario's first green bond issue many years ago. Do you have any comments on how that program has evolved and perhaps looking outside of Canada as well?

Mike Manning, Ontario: We are sticking with our same approach on ESG; we started issuing green bonds in 2014 and it's been an important program for us. We've recently issued our 8th and largest green bond in October, and it went quite well. We are seeing good demand and I think demand has been increasing. We are getting SRI type funds and investors, but we are also seeing more interest from the pension plans and you can layer on top of that demand from Universities and foundations as well. I think that's going to continue in the future, demand is going to be good, and we are somewhat fortunate that we have a good pipeline of green projects. Some of the other provinces don't have that as they are somewhat smaller and don't have the projects to draw on, so we do have that flexibility. We probably will look to do another green bond, possibly in January. We have the project supply to support another issue. In terms of international green bonds, we have been talking about that now for a couple of years and more so over the past year. We have found the demand in Canada has been really strong, and the cost effectiveness is a little bit better, but there might be an opportunity somewhere along the line, especially in Euros. Europe does have a lot of green focused investors, so it might make sense for us to focus on that. We have been broadening our categories of projects as we were initially focused on green transportation, but have moved into the energy efficiency and conservation, and climate adaptation and resilience categories as well. I think Green Bonds will remain a fundamental part of the program, not a huge part of the program, but still an important component of the overall program.

Alex Caridia, RBC: Thanks Mike, we look forward to seeing that and I think you are absolutely right, if we look at some of the recent Euro transactions, we saw Ontario Teacher's do a very strong Euro green bond, and certainly the number of investors and the questions they have are incredibly detailed. I think you are right there is an opportunity there. Guillaume perhaps you want to comment on your side?

Guillaume Pichard, Quebec: Yes a lot of what Mike said is also true for a lot of our program. We started a few years later than Ontario, but we have issued 5 green bonds for CAD$2.8 billion so far. Where we are in our program right now is we are trying to broaden the scope of projects we want to fund with green bonds. We started with public transit, we had some large projects like new cars for the Montreal Metro. In our last green bond, we have introduced an energy efficiency category to green building and LEED buildings, as we are trying to keep the growth there and diversify projects. Internally we are also looking if we can improve some projects to make them qualify for the high standards that a green bond warrants. So that is key, and regarding demand I think Mike was spot on, the demand in Canada is really high as it is globally. For a while I think demand will outweigh the supply, and it's almost by design because at the end of the day it's hard to do green bonds, you need those projects and need to consider that you need to do the paperwork as Dominic said, which has to be done very professionally. You cannot issue green bonds and figure out after what you want to do with the money, you have to have a plan. So that's where I say by design we won't bring enough supply and the demand is still going to be there because it's hard to meet that demand.

Alex Caridia, RBC: Thanks very much Guillaume. Renaud on your side, you have been very active domestically but wondering if you have thoughts or comments on potentially looking at a green or ESG issue?

Renaud De Jaham, PSP: I would say that pressure comes from everywhere with regards to ESG matters, you can't have a conversation with dealers without talking about green bonds. It's exactly the same with investors, and even investors who invest in conventional bonds, some of them have ESG scoring in order to assess what you do with ESG matters and whether or not they are willing to support you in your debt programs. I think that those are conversations that you can't avoid now. You also see that green bonds outstanding are over a trillion or so, thus this is something that you can't avoid. We are going to have the conversation internally so definitely we have to have a plan for next year whether or not this is something of interest for PSP. But as a crown organization, the executive management is always saying that ESG matters are increasingly important and from the investment side we are looking more and more at projects that are ESG responsible. On the issuance side we will definitely have to make a call on this and come up eventually with a green bond framework. So I will have a clearer answer for you next year.

Alex Caridia, RBC: Thank you, I look forward to that. Chad I know you have been active with green bonds in dollars, but also you have issued in Canada in the past. Wondering if you can update the group on any future green bond plans or also your plans in respect to the domestic market here.

Chad Buffel, EDC: We've been active in green bonds since 2014, mainly in the US dollar side. Going into 2021 we will be doing more work on the green space. We were absent this year and that was more because of the underlying situation gave us pause in the public markets. We certainly have an active portfolio; perhaps not as large as some of my colleagues here. For EDC the bigger challenge is making sure we have the right projects. We start from a very conservative perspective, where we make sure we have the asset portfolio lined up before approaching the market, so that the money raised is being deployed right away. We ensure that all the tracking and all the performance, whether it net returns on greenhouse gasses or replacements in terms of renewable energy we have more certainty when we issue.

We expect to overhaul our green bond framework in 2021 where we will look at it from a sustainable transition side. This will ensure that the framework platform will allow us to expand and look at several different projects that don't fit the specific green criteria. We are also looking at how we can reduce the carbon intensity of our outstanding portfolio right now. So, putting targets and frameworks like that in place will enable us to support and/or show the support for a lot of things in Canada that may be in that transition and sustainable space.

We certainly will be looking at a US dollar transaction, it's possible we may look domestically as well, it really depends on the size of our asset portfolio. We see capacity with our assets and depending on the completion time to get our framework in place that may also help to increase our ability to expand the portfolio. There certainly is no shortage of demand. When we were marketing our US dollar green product 5-6 years ago, I compare it to how you do the marketing now, the type of questions you get, the interest, and the demand really show the exponential growth. We have already seen green bond issuances eclipse last year total.

We expect to overhaul our green bond framework in 2021 where we will look at it from a sustainable transition side.

– Chad Buffel, EDC

Part of the role we can play, as an early entrant in the green space is our participation on ICMA's council for Green Bond Principles and Social Bond Principles, and our subsidiary, FinDev Canada, which focuses more on gender and social elements of sustainability. So, to the extent that we can get our new framework in place, some broader themes on socially sustainable activities at FinDev Canada can only increase our asset portfolio. I think the real issue for anybody else is making sure the projects can qualify and the framework in place can support the management and monitoring of the criteria. When we put out our annual green impact report we see the evolution for increased granularity on the projects and their outcome. We want to make sure we address investor's needs for that so it's about putting the right mechanisms in place to have confidence going forward. We are looking forward to this coming year and perhaps dipping our toes in one of the newer types of sustainable bonds.

Alex Caridia, RBC: Thanks Chad. My final ESG question is to the three provinces that I haven't asked so far. Don, Rod, or Charles, any plans on your side to issue green or ESG, or any views on the topic?

Don Delisle, Manitoba: It's something that we would be interested in, but it goes back to a couple comments that both Guillaume and Mike made is identifying projects. That is a real issue for us, to be able to identify projects that we could put into a sustainable program that is going to take a lot of resources to put together and do it properly. Both Quebec and Ontario, are the gold standard in that, and I think that it would be prudent for us if we were to go ahead with that and do exactly the same, but it's difficult to find the projects.

Charles Allain, Nova Scotia: I would echo what Don said, in Nova Scotia, we have very little in the way of green that we could issue today. Most of our commercial real estate is privately owned, very little of that publically owned. One area that I do see maybe in the future is social bonds, and particularly, housing stocks for social housing, which could be an avenue for us in the future. We do have increasing rent, and the Halifax housing market has done well in the last couple of years and we have seen some pressure there for rent control so there may be some avenues in the future for social bonds and the housing market. Mass transit, we have been talking about for a few years but nothing on the horizon right now.

Rod Balkwill, Saskatchewan: I think it's the same for Saskatchewan, it's always been project issues, that has kept us out of Green bonds, aside from the fact that we are a somewhat carbon intensive economy with agriculture, mining, oil and gas, you know it's cold and all those things, and the province has a large coal resource as well. But the province has committed to moving it's public utility SaskPower out of coal by 2030, and is investigating carbon neutrality by 2050, so there are real things happening.

The changes to the ESG market surrounding transition funding is really encouraging, because I think there are things being done but they are hard to fit to the really strict guidelines that have traditionally been in place. We don't have large transit projects, but some of the new investments that are coming up around agriculture and protein development, water management, imported hydro power and small modular reactors might fit the transition guidelines, so we expect there to be opportunities.

Alex Caridia, RBC: That concludes the roundtable discussion. On behalf of RBC, thank you very much to all the participants for joining.

SELECT CANADIAN PUBLIC SECTOR BORROWING PROGRAMS

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. Brian Pallister	Hon. Scott Moe	Hon. John Horgan	Hon. Andrew Furey
FINANCE MINISTER/CFO	Hon. Rod Phillips	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)	14,733	8,576	4,428	1,380	1,178	5,146	521
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)	-5.6%	-5.5%	-8.3%	-3.9%	-4.7%	-5.3%	-4.6%
SHARE OF CANADA GDP (%)	38.6%	19.9%	15.3%	3.2%	3.6%	13.4%	1.5%
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) / Aaa / AA	AA(H) / Aaa / AAA	A (L) / A1 / A
% CAD ISSUANCE (2019)	75%	59%	60%	92%	99%	97%	100%
RECENT INTERNATIONAL ISSUANCE	USD, EUR, GBP, CHF, AUD, etc.	USD, EUR, GBP, AUD, NZD etc.	USD, EUR, GBP, AUD, NOK etc.	USD, EUR, CHF, NZD, AUD etc.	EUR	USD, EUR, AUD etc	n/a
2019/20 BORROWING (C$BN)	36.0	18.6	11.6	4.5	2.1	8.9	1.0
2019/21 BORROWING (C$BN)	52.3	32.5	29.9	7.9	4.5	19.4	3.0
REMAINING FUNDING FOR 2020/21 (C$BN)	7.9	-	8.7	1.4	0.9	3.0	0.2
YOY INCREASE (C$BN)	16.3	13.9	18.3	3.4	2.4	10.5	2.0
2021/22 BORROWING (C$BN)(3)	53.2	35.3	20.9	n/a	n/a	n/a	n/a
DOMESTIC TARGET TERMS	5 / 7 / 10 / 30	5 / 7 / 10 / 30	5 / 7 / 10 / 30	5 / 10 / 30	5 / 10 / 30	5 / 7 / 10 / 30	7 / 10 / 30
PUBLIC DEBT O/S (C$BN)(4)	361.5	216.9	92.7	50.2	24.0	66.1	16.9
FLOATERS PROPORTION(5)	4.5%	2.6%	6.6%	6.7%	5.1%	0.9%	3.8%
ACTIVE ULTRA-LONG ISSUERS(6)	n/a	n/a	$900M	$1.34B	$300M	n/a	n/a
MIN. CARVE-OUT SIZE (7)	$600M (5yr) / $500M (10yr) / $400M (30yr)	n/a	$200M	$150M	$100M	n/a	$100M

(1) Statistics Canada data as of Q4 2020 (2) Statistics Canada, RBC Economics (3) Figures based on most recent borrowing program; RBC Capital Markets (4) Bloomberg (5) Based on historical issuances; RBC Capital Markets (6) Issued within the last two Government Fiscal Years (7) Large order protocol, order placed to one investor

NOVA SCOTIA	NEW BRUNSWICK	PEI	CANADA	CMHC	PSP	CPP	EDC
Hon. Stephen McNeil	Hon. Blaine Higgs	Hon. Dennis King	Hon. Justin Trudeau	Evan Siddall	Neil Cunningham	Mark Machin	Mairead Lavery
Hon. Karen Casey	Hon. Ernie Steeves	Hon. Darlene Compton	Hon. Chrystia Freeland	Lisa Williams	J-F. Bureau	Neil Beaumont	Ken Kember
Halifax	Fredricton	Charlottetown	Ottawa	Ottawa	Montreal	Toronto	Ottawa
979	781	160	38,008	n/a	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	n/a
-4.4%	-4.2%	-3.7%	-5.8%	n/a	n/a	n/a	n/a
2.0%	1.7%	0.3%	100.0%	n/a	n/a	n/a	n/a
Apr-Mar	Apr-Mar	Apr-Mar	Apr-Mar	Jan-Dec	Apr-Mar	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	AAA / Aaa / AAA
100%	100%	100%	100%	100%	100%	0%	0%
n/a	USD, CHF	n/a	USD	n/a	n/a	USD, GBP, EUR	USD, HKD, GBP, EUR, NZD etc
1.5	1.9	0.1	122.2	40.0	2.3	8.7	8.4
2.3	1.6	0.2	372.6	60.0	1.5	11.5	12.2
0.6	0.2	0.1	113.5	7.0	0.5 - 1.0	3.0	-
0.8	(0.3)	0.1	250.4	20.0	(0.8)	2.9	3.8
n/a	n/a	n/a	n/a	n/a	2.5 - 3.5	>9.0	~10.4
5 / 10 / 30	5 / 10 / 30	30 / 40	-	5 / 10	3 / 5 / 7 / 10	3 / 5 / 7 / 10 / 15 / 30	2 / 3 / 5
15.2	21.2	2.0	749.9	270.0	10.0	38.7	42.6
19.7%	3.9%	0.0%	4.8%	17.7%	3.9%	6.0%	26.4%
n/a	$300M	n/a	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

SELECT RBC-LED TRANSACTIONS IN 2020

Select Transactions for Canadian Government Issuers & Asset Managers

CPP INVESTMENT BOARD
US$1,000,000,000
1.25% due 2025
AAA / Aaa / AAA
Joint Bookrunner
February 2020

Alberta
€1,100,000,000
0.50% due 2025
AA(L) / Aa2 / A+
Joint Bookrunner
April 2020

Ontario
C$3,600,000,000
2.05% due 2030
AA(L) / Aa3 / A+
Lead
April 2020

BRITISH COLUMBIA
C$1,000,000,000
2.95% due 2050
AA(H) / Aaa / AAA
Lead
April 2020

Manitoba
C$800,000,000
2.45% due 2025
A(H) / Aa2 / A+
Joint Lead
April 2020

OMERS
C$1,250,000,000
1.55% due 2027
AAA / Aa1 / AA+
Joint Bookrunner
April 2020

CMHC SCHL
C$10,000,000,000
C$6 billion 2.35% due 2023
C$4 billion 1.75% due 2030
AAA / Aaa / AAA
Lead
May 2020

CDPQ
US$2,500,000,000
0.875% due 2025
AAA / Aaa / AAA
Joint Bookrunner
June 2020

Québec
US$3,250,000,000
0.60% due 2025
AA(L) / Aa2 / AA-
Joint Bookrunner
July 2020

PSP Investissements Investments
C$1,500,000,000
0.90% due 2026
AAA / Aaa / AAA
Joint Bookrunner
August 2020

York Region
C$250,000,000
1.70% due 2030
- / Aaa / AA+
Lead
August 2020

NOVA SCOTIA
C$300,000,000
3.15% due 2051
A(H) / Aa2 / AA-
Lead
September 2020

ST. JOHN'S NEWFOUNDLAND AND LABRADOR, CANADA
C$138,000,000
2.916% due 2040
- / A1 / A+
Sole Lead
August 2020

Northwest Territories
C$180,000,000
2.20% due 2051
Inaugural Debt Offering
- / Aa1 / -
Sole Bookrunner
September 2020

ONTARIO TEACHERS' PENSION PLAN
C$1,250,000,000
1.10% due 2027
Inaugural Debt Offering
AAA / Aa1 / AA+
Joint Bookrunner
October 2020

Ontario
€2,500,000,000
0.01% due 2030
AA(L) / Aa3 / A+
Joint Bookrunner
November 2020

Green Bonds and Sustainable Finance

European Investment Bank Group
C$500,000,000
1.90% due 2025
AAA / Aaa / AAA
Joint Bookrunner
January 2020

Québec
C$500,000,000
1.85% Green Bond due 2027
AA(L) / Aa2 / AA-
Joint Bookrunner
February 2020

Ottawa
C$300,000,000
2.50% Green Bond due 2051
- / Aaa / AA
Joint Bookrunner
May 2020

Toronto
C$100,000,000
1.60% Social Bond due 2030
AA / Aa1 / AA
Joint Bookrunner
June 2020

Ontario
C$1,500,000,000
1.85% Green Bond due 2027
AA(L) / Aa3 / A+
Joint Bookrunner
October 2020

Toronto
C$130,000,000
2.60% Green Bond due 2039
AA / Aa1 / AA
Lead
December 2020

Maple Offerings

The World Bank (IBRD • IDA | World Bank Group)
C$1,500,000,000
1.90% due 2025
AAA / Aaa / AAA
Joint Bookrunner
January 2020

IDB Inter-American Development Bank
C$600,000,000
0.75% due 2025
- / Aaa / AAA
Joint Bookrunner
August 2020

European Investment Bank Group
C$600,000,000
1.75% due 2024
AAA / Aaa / AAA
Joint Bookrunner
September 2020