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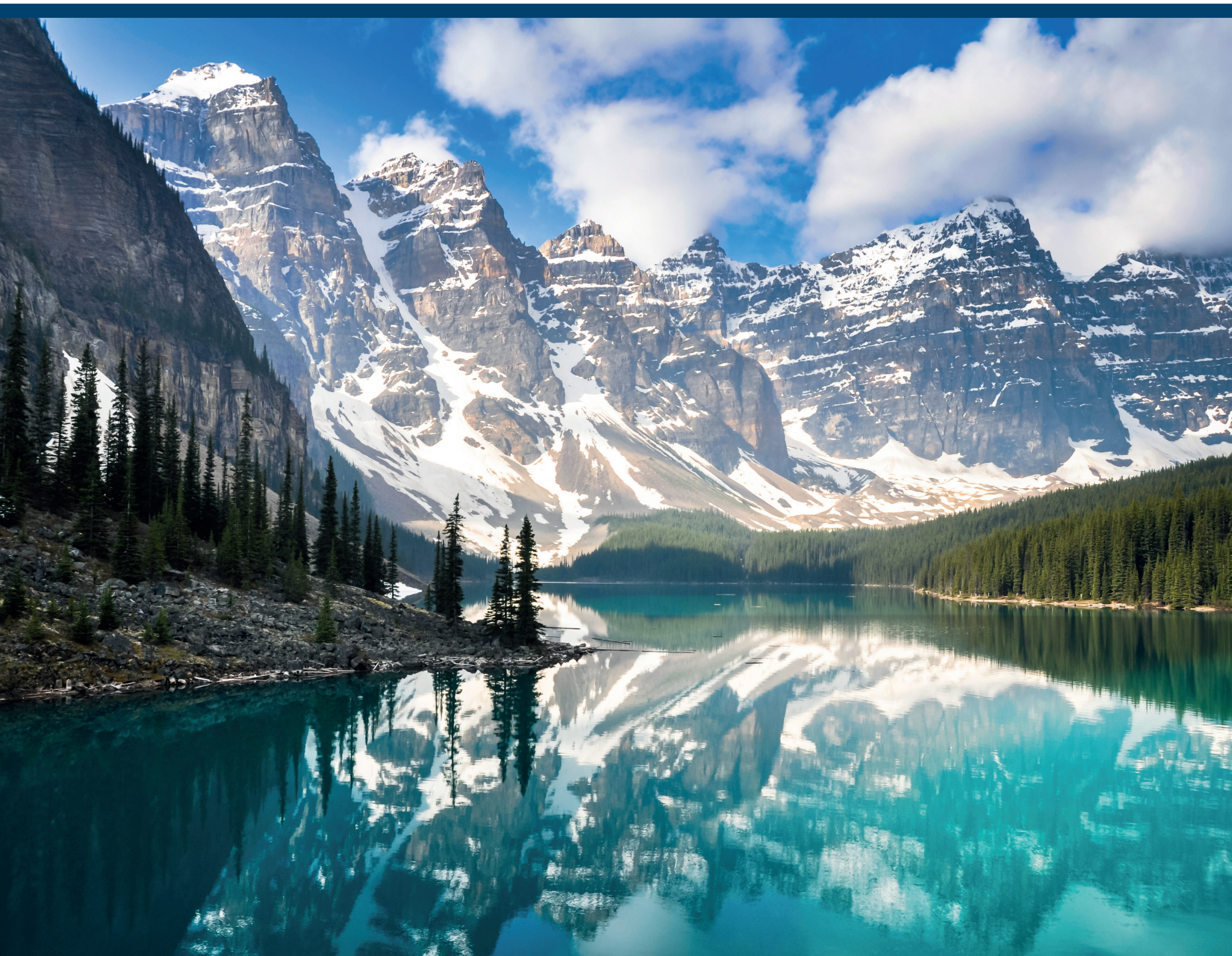
The RBC Capital Markets Canadian Public Sector Borrowers Roundtable 2017

January 2018



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Canada's borrowers in good shape to take on tricky 2018

Canadian public sector issuers had a barnstorming year in the international debt markets in 2017, propelled by a strong economic performance by Canada and many of its provinces. But challenges loom — uncertainty over Canada's trade relationship with the US, geopolitical instability and changing global monetary policy are just three of many concerns that borrowers, bankers and investors in Canada's public sector bond markets will have to deal with this year. *GlobalCapital* met key market participants in Toronto in November to discuss the key issues.

Participants in the roundtable were:

Alex Caridia, managing director, government finance debt capital markets, RBC Capital Markets

Mark Chandler, managing director, head of Canadian fixed income and currency research, RBC Capital Markets

Renaud de Jaham, vice-president and treasurer, PSP Investments

Susan Love, vice-president and treasurer, Export Development Canada

Kevin Martin, director, government finance debt capital markets, RBC Capital Markets

Mike Manning, executive director and chief investment officer, capital markets, Ontario Financing Authority

Nicolas Moreau, general director, funds management division, financial sector policy branch, Department of Finance, Canada

Guillaume Pichard, director, capital markets, Ministry of Finance, Province of Quebec

Jigme Shingsar, managing director, US debt capital markets, RBC Capital Markets

Garry Steski, assistant deputy minister, Province of Manitoba

Louise Stevens, treasurer, Canada Mortgage and Housing Corp

Stephen Thompson, executive director, capital markets, Treasury Board and Finance, Province of Alberta

Tessa Wilkie, moderator, *GlobalCapital*

GlobalCapital: What is the outlook for the Canadian economy and its provinces in 2018?

Mark Chandler, RBC Capital Markets: In 2017 the Canadian economy experienced above-potential growth in real GDP of close to 3%, leading the Bank of Canada to raise rates twice by a cumulative 50bp. There should be more balanced growth in 2018. Consumer spending, which was responsible for almost two thirds of the 3% growth in 2017, will slow. Meaningful contributions to growth will come from the government sector and business capital spending instead. Moderate growth in the range of 2% is still a very good rate and above potential.

Nicolas Moreau, Department of Finance, Canada: We share this view. Over the past four quarters to the end of the third quarter of 2017, real GDP growth in Canada has averaged a robust 3.7%. This is the strongest four-quarter expansion since 2006, and by far the best performance of the G7 economies. A key part of this rebound has been the stabilisation and bounce-back in growth in Alberta following the oil price shock, as well as strong regional housing markets, a firming global economy, supportive monetary policy and federal fiscal actions.

However, this pace of very rapid growth is not sustainable. The rebound in Alberta is likely to ease as its recovery progresses and slack in the provincial economy diminishes. The Ontario housing sector has continued to cool into the third quarter, and both housing and consumption will also experience a drag from higher interest rates, particularly in the context of high levels of household indebtedness. Over the medium term, we expect a return to more modest rates of growth of around 2%, reflecting the effects of population ageing and weak global and domestic productivity growth.

GlobalCapital: How about Alberta, which was downgraded by DBRS in November?

Stephen Thompson, Province of Alberta: Thank you for bringing that up. The story in Alberta is one of slow growth out of recession. We do not expect to achieve the same levels of economic activity as prior to the recession until around 2019. We are forecasting moderate GDP growth — by Alberta standards — of about 2.5% through that period.

We did have a high rate of economic growth — about 4% — in 2017 because of increased production in oil and gas. That surprised us and we do not think that rate is sustainable. We are seeing some pressures on pipeline supply and that is muting the revenue impact of increased production.

The labour record is improving: we have recovered about 41,000 of 62,000 jobs lost to the recession, and we expect that growth to continue.

Oil prices have also helped us. The West Texas Intermediate (WTI) oil price forecasts moved towards our forecast level over 2017.

GlobalCapital: Do you have any comments on rising debt levels that DBRS cited in its decision to downgrade?

Thompson, Alberta: Alberta was in a net asset position before the collapse of global oil prices in 2014. Our debt to GDP is sitting around the 6.5% range. We expect that to hit about 11.4% by the end of the 2020 fiscal year — on March 31, 2020. Our debt to GDP is at an attractive level compared to other provinces. When we speak to investors — or any financial professionals — globally, we often find that they are quite envious of our debt to GDP level. In Alberta, though, it is shocking and horrifying to people who are not used to being indebted.

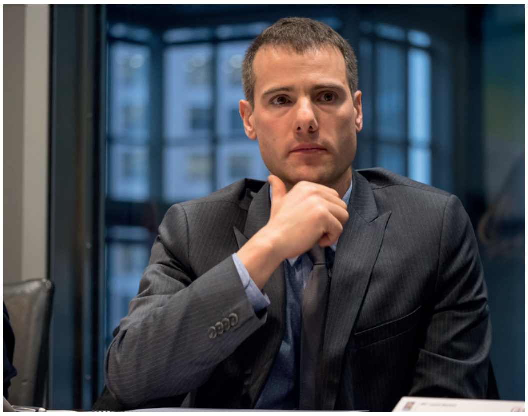
The speed at which we have accumulated that debt is largely what has affected our ratings and our cost of funds. We will run large deficits for the next few years. Our borrowing programme has increased substantially: we expect to add C$30bn ($23bn) to our debt stock over the next three to four years. We have managed the process in the capital markets: we have diversified our investor base and we have had increased interest from international investors. Alberta is still an attractive product. It is a credit in transition.

Garry Steski, Province of Manitoba: We expect Manitoba's real GDP growth rate to remain steady at the level it has been at for many years: it was 1.9% in 2016, about 2.3% in 2017 and we expect 2% in 2018. The labour market in Manitoba is good and exports are strong. Everything is continuing to go well from an economic standpoint.

Mike Manning, Ontario Financing Authority: Although there are challenges, we are cautiously optimistic for 2018.

Ontario's economy has been one of the stronger provincial economies over the last three years. We have benefited from a competitive Canadian dollar, low oil prices and supportive US economic growth. For 2017, our real GDP forecast is about 2.8%.

Growth will be solid but moderate a little in 2018: we expect a growth rate of about 2.1%. Over the next three to four years, we expect business investment, residential investment and household spending to increase. That will boost growth further.



Guillaume Pichard
Province of Quebec

Guillaume Pichard, Quebec: In 2018, we expect a bit of a slowdown compared to a great 2017 — in line with the rest of Canada. Our forecast is about 1.8% growth in GDP.

For Quebec, 2017 is going to be a very hard year to beat. Our GDP growth expectation for 2017 is 2.6%. We are on pace to create over 2% of jobs in Quebec in 2017, whereas in a normal year we might expect to get 1% — around 40,000 jobs.

We hope that these conditions will last forever but we are realistic on the outlook for 2018.

GlobalCapital: Mark, you mentioned Bank of Canada's rate rises in 2017. What are your thoughts on 2018? There was a bit of a surprise rate rise in September, when Bank of Canada seemed to be veering off from the US Federal Reserve's path.

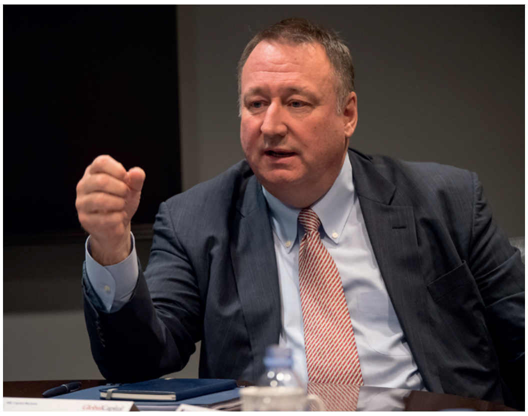
Chandler, RBC CM: As we are hearing from around the table, many people were surprised at the strength of the Canadian economy this year, the Bank of Canada included.

Even though we see growth slowing next year, it should be at a pace slightly above trend. It is also worth noting that we are still quite a bit below what would be considered an equilibrium interest rate. So, we expect Bank of Canada to follow through with more rate increases in 2018. Our forecast is for three rate hikes to take the overnight target rate to 1.75% by the end of 2018.

We expect the US Federal Reserve to hike rates steadily through 2018. The Bank of Canada may be cautious early on in 2018 — as it waits to see how regulatory changes affect the housing market and how the North American Free Trade Agreement (Nafta) re-negotiations go — but it will end up delivering.

GlobalCapital: Is there a real chance that Nafta will be scrapped?

Chandler, RBC CM: The threat that the Nafta agree-



Mark Chandler
RBC Capital Markets

ment will be scrapped is increasing, though that is not our base case. There are a number of contentious issues to resolve.

A return to WTO-type tariff duties — an increase of about 4% — would be a bad outcome for Canada and could shave 1% from GDP. That is a significant number, but the impact would be spread out — potentially over a period of five to 10 years.

Regardless, the uncertainty is depressing capital spending from what it would otherwise have been – even at this time.

GlobalCapital: Susan, how has this been affecting EDC? Is it a concern for you looking at 2018?

Susan Love, Export Development Canada: We are optimistic that the negotiators on Nafta will come to an agreement, but, as Mark said, the uncertainty is taking its toll.

What EDC is saying to exporters is: look at your business model, look at what it would mean to your business if Nafta is torn up. Problem solve now about what you might need to do if that happens. There are opportunities to diversify away from the US. We encourage exporters to expand internationally and try to help them if they want to do business in other countries.

The US is Canada's biggest trading partner — approximately 75% of Canada's exports go to the US. That varies from region to region. Since 2000, most provinces — except for New Brunswick — have reduced their export exposure to the US. For example, a quarter of British Columbia's exports go to emerging markets, and just over 50% to the US.

EDC has 19 international offices, none in the US to date. We want to encourage exporters to go beyond the US into some of these markets. But they may not know the language, they may not know the banking sector, they may not have contacts with businesses in those particular countries, so it's our role to help them with that.

I am very encouraged by agreements such as Ceta [the Canada-European Union Comprehensive Economic and Trade Agreement], that will also provide a lot of opportunity for Canadian exporters.

GlobalCapital: In late November Bank of Canada's Financial System Review raised — not for the first time — housing market imbalances and household debt as potential problems for the financial sector. Louise, how much of an issue is this for CMHC and your mortgage bond programme?

Louise Stevens, Canada Mortgage and Housing Corp: CMHC publishes a housing market assessment quarterly. It is intended to message to market participants where there might be vulnerabilities in the markets, so those participants can make informed decisions and adjust their activities accordingly. Our most recent publication identifies a high degree of vulnerability for Canada as a whole, and that reflects the over-valuation and some price acceleration in Toronto, Vancouver and their surrounding markets. We are keeping a very close eye on that.

All levels of government have taken steps to address some of these vulnerabilities in the housing market — at the federal level in particular, the stress testing that has been applied first to insured mortgage applicants, in 2016, and then extended to federally regulated uninsured mortgage applicants at the beginning of 2018. We are watching to see what effect that has on the housing market.

We do not expect the housing market to have a big impact on the Canada Mortgage Bonds programme. Those bonds carry a guarantee from CMHC that reflects a direct and unconditional obligation of Canada. Investors in that programme are not exposed to the mortgages that are purchased with the proceeds of the issues or the broader housing markets.

GlobalCapital: You mentioned initiatives aimed at tackling the problems in the housing market. Have they gone far enough?

Louise Stevens
Canada Mortgage and Housing Corp

Stevens, CMHC: Many of them are new and we have not seen the impact yet. It is hard to say what the effect on the housing markets might be.

Pichard, Quebec: The housing market in Quebec is balanced. The growth rate of prices in Montreal has risen, but we have not seen this elsewhere in Quebec. Quebec's market conditions are nowhere near those of Toronto and Vancouver. Housing in Quebec is still affordable and housing starts are in line with household formation.

We are keeping an eye on housing, though, and we have looked at what our neighbours have done to tackle overheating housing markets, in case it is something we need to deal with.

Chandler, RBC CM: We expect new home building and housing starts to slow in 2018 across Canada. The housing market is tied to the level of interest rates and to broader labour market conditions.

We expect the unemployment rate to edge a little lower from its current level of 5.9% as we progress through 2018. We expect monthly employment gains to average 10,000 to 12,000.

A well-functioning employment market should help to keep mortgage delinquencies low — which they are currently. We do not expect an outright collapse of the housing market, with interest rates still low from a historical perspective and the labour market in good shape. Nevertheless, we will see a modest drag on GDP from declining residential constructions — around 0.2 percentage points off growth overall from that source.

Stevens, CMHC: In addition to that improvement in labour market conditions we expect to see high growth in net migration, which will be supportive of the housing markets.

In Toronto and Vancouver there is not enough supply. As a result, a large portion of home prices are tied to the land value. In Toronto and Vancouver, about 80% of the property price is tied to the actual land, versus say in Montreal where it is around 30%. As a result, we could see a shift in the composition of housing away from single detached homes towards higher density housing.

GlobalCapital: The government announced the Canada Infrastructure Bank in 2016 and said that it would be operational towards the end of 2017. When will it get there?

Moreau, Department of Finance: The government is establishing the Canada Infrastructure Bank, an arm's-length organisation that will work with provincial, territorial, municipal, indigenous and private sector investment partners to transform the way infrastructure is planned, funded and delivered in Canada. The CIB will be responsible for investing at least C$35bn in revenue generating infrastructure projects that are in the public interest, and attracting private sector capital to those projects so that more infrastructure can be built across Canada. The implementation of the CIB is advancing on track. The Canada Infrastructure Bank Act is now in place. The CIB's headquarters are being established here in Toronto, to take advantage of its status as a global financial hub with a vast network and critical mass of financial, legal and construction firms. Over the coming months, we expect the CIB will begin to work with its partners to bring new investment and transformative new ideas to Canada's infrastructure landscape.

Thompson, Alberta: I would be interested to see what projects come out of the establishment of the CIB. We have a robust capital programme in Alberta — it was one of the reasons we began borrowing in earnest in the capital markets — and what we have found in Alberta is that projects do not proceed as quickly as we had thought. I am curious to see what sort of crowding-in is going to happen with CIB projects.

Manning, Ontario: Some of the gains are going to be long term. In infrastructure, the productivity-enhancing gains are the most important. A study by the Centre for Spatial Economics found that every $1 spent on infrastructure in Ontario can lead to a $6 enhancement of future GDP. CIB will also drive a short term pick-up in construction activity, which is welcomed by all provinces in helping the economy.

Mike Manning
Ontario Financing Authority

Pichard, Quebec: You have to look at the long term impact. Quebec has a C$90bn infrastructure plan for implementation over the next 10 years. If ever the CIB wants to get involved in any of our infrastructure projects — we always welcome any partnership with the federal government, as we are doing with the Réseau Electrique Métropolitain in Montréal.

GlobalCapital: I would like to open this next question up to everyone: what are you most worried about in 2018?

Alex Caridia, RBC Capital Markets: Geopolitical risk is what will be keeping me up at night in 2018 — be that in Asia — in North Korea — in the Middle East or even in eastern Europe. We find we are watching developments in those regions more and more closely as we are deciding on issue timings and advising borrowers on their issuance programmes.

Love, EDC: That is a worry but what worries me more are threats on the technology side. Cyber-terrorism is a real concern, especially when I think about how reliant on technology we all are. The difference in our trading room versus five years ago is marked — how little the phones ring because everything is done electronically.

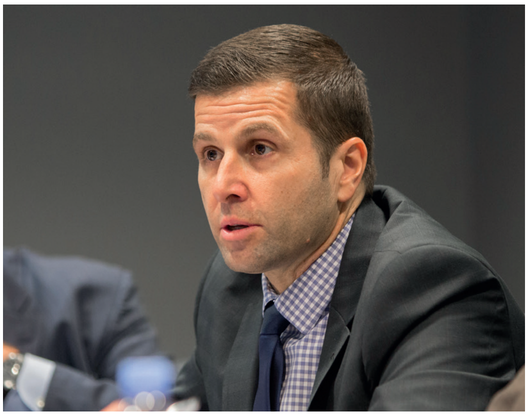
There are safeguards in place but technology is advancing so quickly that it is hard to keep your organisation truly protected. You cannot underestimate that risk.

Chandler, RBC CM: Around the table we have a group of very large government issuers. Some of the biggest purchasers of government debt have been central banks, and there is at least one central bank globally that is starting to pare back its purchases. Another is scheduled to begin paring back in September 2018 — although we believe the European Central Bank may extend its purchasing programme beyond that.

This will not impact Canadian public sector borrowers directly but it will indirectly. We have a lot of happy buyers — some new and some longstanding — of

Canadian federal and provincial debt that are doing so because central banks are buying government debt elsewhere in the world. That is a threat to think about as we head into 2018, particularly as we move into a rising yields environment.

Pichard, Quebec: I am concerned about the Nafta situation. Quebec and Canada have been enjoying favourable economic conditions and we have put a lot of work to get that growth going. It would be so sad to have problems with Nafta rain on our parade, particularly because as a province it is something we have very little control over.



Nicolas Moreau
Department of Finance, Canada

Moreau, Department of Finance: For the first time in a long time, there is also upside risk to the economic outlook. Stronger growth in the world economy, particularly in the euro area and more recently the US, could be more durable and self-sustaining than anticipated, which would reinforce Canadian growth in return. The strong recent momentum in the Canadian economy could prove more durable, supported by rising consumer confidence and renewed business optimism.

However, downside risks remain: uncertainty over US economic policies, including negotiations on modernising Nafta, could affect Canadian business confidence and investment decisions. Global financial markets could experience periods of turbulence as advanced economy central banks begin or continue the significant task of gradually normalising monetary policy. On the domestic front, Canada's household debt-to-income ratio remains elevated historically. This could limit the contribution to growth of both housing and consumer spending in the coming years, particularly in a rising interest rate environment.

Renaud de Jaham, PSP Investments: The biggest risk for the Canadian economy today is a failure to renegotiate Nafta. The uncertainty around that process is concerning.

Thompson, Alberta: I work in the financial markets but 90% of what comes out of my mouth is about oil. That is our biggest worry in Alberta.

We have had a big pick-up in oil production in Alberta. We are expecting 750,000 more barrels a day to come online over the next few years, taking our total production to about 4m barrels a day. We have the third largest reserves in the world. Our economy has always been the engine of growth for Canada. Another global collapse in oil prices would be devastating.

One issue we are facing is getting that oil out to market and to new markets. A failure of our pipeline projects would have a direct impact on the price of heavy oil — that would have almost as big an impact on our budget as the WTI price.

We have had a bit of a lift from Mr Trump — of all people — because the Keystone XL pipeline project was dead under the Obama administration and that seems to be clearing its final hurdles. That pipeline would get our products to the US Gulf Coast refineries that want it so badly. Then of course our pipelines to British Columbia would get our oil to tide water for the first time and open up new markets.

The trade environment between Canada and the US could sour and so far we have avoided including energy in that discussion. I'm worried about the potential for energy to be dragged into it.

Steski, Manitoba: From a treasury management perspective our concern is access to markets and the issues around liquidity. We are also keeping an eye on potential changes in the regulatory environment. We rely very heavily on the use of derivatives and we are worried that we do not have much clarity or certainty on what rules may come along.

GlobalCapital**: Moving on to domestic markets: how concerned are investors about market liquidity?**

de Jaham, PSP Investments: Liquidity is of paramount importance to investors, so they like to see broad syndicates when borrowers issue. We do not have a big issuance programme but we know we have to reach out to as many investors as possible. Whenever we can we print in benchmark size. We also work together with our dealers to monitor secondary markets.

Thompson, Alberta: Over the past two years we have met a lot of investors globally. Our issuance programme ramped up very quickly and we had to introduce the credit to global markets. In those meetings the investors have been more focused on liquidity than on credit.

Credit is something that they can understand, that their analysts can very finely tune, but liquidity is something that is a little more tenuous. We structure our programme to try to achieve the maximum liquidity for issues — we do that by printing large issues with broad distributions and doing nothing off the run, nothing fancy.

GlobalCapital**: So the issuers here are printing fewer bonds but bigger bonds to ensure liquidity?**

Manning, Ontario: Liquidity has been a prime concern of ours for years now. We aim to do this in part by building a curve of large benchmark bonds across the domestic bond market.

Pichard, Quebec: Quebec has been doing the same thing: providing very deep and liquid benchmarks in the Canadian and international markets.

The liquidity issue faded away a bit in 2017 as it was a very good year for funding and the investors were very receptive to issuance. Liquidity is always a concern for investors so we kept it in the back of our minds when executing deals. We print in benchmark size to make sure investors can always get a fair price on our bonds.

Stevens, CMHC: Liquidity has improved over the last year but it is still key for investors. The Canada Mortgage Bonds programme has issued liquid, benchmark size deals since its inception. We will continue to offer those large, liquid benchmarks. It is what investors are looking for.

We do investor surveys and we speak to investors to ensure that they are receiving the liquidity they want. Generally speaking, we get very positive feedback about our programme's liquidity. Many investors view the liquidity in CMB issues as comparable to off the run Government of Canada bonds.

Jigme Shingsar, RBC Capital Markets: I have yet to meet an investor who is not concerned about liquidity. But it has been less of an issue more recently — perhaps due to issuers' efforts in structuring their programmes to ensure decent liquidity.

There were concerns about the impact of regulation on banks' ability to devote a lot of balance sheet to secondary market trading. For the most part liquidity in the Canadian market has been robust. If anything, offer-side liquidity has been the bigger problem because there has been such strong demand for Canadian paper.

At the back of investors' minds, there is the concern that if everyone is going the same way then the banks' ability to stand in and buy bonds is potentially not the same as it used to be. But for now liquidity is strong.

Love, EDC: The trick is to be nimble: you have got to listen to what investors want and try to adapt your programme so that it works for you and your investors.

For example, we typically issue a dollar global benchmark at the $1bn mark. But we began to hear from investors that they would like to see larger benchmarks so we printed two globals in 2017 of $1.25bn.

It has been the same in our green bonds programme. Our initial green bonds were $300m. Investors said they would like the liquidity that comes with a bigger size so we increased our issues to $500m.

In other markets where you open a line at a lower size, we have made a commitment to tap an issue so that it moves up to the benchmark size if the demand is there.

Shingsar, RBC CM: You cannot create liquidity artificially. The best way to guarantee good liquidity is broad distribution. That is why issuers spend so much time on investor relations these days.

Stevens, CMHC: Having a broad, diverse investor base has been key to maintaining liquidity in our bond programme.

Love, EDC: We have noticed a decline in demand for private placements — especially in the last year. Some investors want club-style deals so that the issue size is larger.

Caridia, RBC CM: Demand for private placements has been declining for some time — particularly for structured products and some of the more esoteric currencies.

The Canadian provincial bond sector is small in terms of total issuance size compared with other sectors globally. But it is much more liquid, there is much more secondary turnover and bid/offer spreads are much tighter than other sectors you might compare it with. That is probably also a reflection of the health of the banking system in Canada.

GlobalCapital: We have had an unprecedented run of very low interest rates over the past several years. It looks like that could soon end. How does that affect your borrowing plans for the next year? Are you tempted to look at pre-funding or is the cost of carry too painful?

Garry Steski
Province of Manitoba

Steski, Manitoba: We have used pre-funding for the last four or five fiscal years. We aim to end a fiscal year with about three months of the new fiscal year's cash-flow funded — plus to have funded any refinancings needed through that period. It is not a hard and fast rule but we do it to the extent that we can.

Manning, Ontario: We have done more pre-funding in 2017 than ever. That is not because of our outlook on spreads or interest rates but because of elevated geopolitical risk. We also have an election scheduled for 2018 and we are aware that it could impact market access. We have essentially completed our C$25.8 bn programme for this fiscal year. We are about 30% ahead of pace and we will continue borrowing in the first quarter of 2018.

Thompson, Alberta: In Alberta we try to be three to six months ahead of our funding requirements — although we view our funding needs over a three year budget period rather than annually.

Alberta does not have the cash reserves that it used to. In better times we had a contingency account as a reserve to survive financial crises or just to draw down funds when money was expensive or difficult to raise. We do not have that luxury anymore so it is more critical than ever that we be well ahead of our requirements at all times.

Pichard, Quebec: We have pre-funded for many years and we have never regretted that strategy. It allows you to take advantage of favourable market conditions and it helps you to manage the size of the borrowing programme you have planned for the next year — particularly because our borrowing programmes vary from year to year. For example, in 2017 we had a C$10.3bn programme but in 2018 it will be over C$20bn.

Investors view you more favourably if they know you can pre-fund. The choice to pre-fund has never been about rates or spreads — it has always been a strategic approach to be able to borrow when market conditions are positive.

Kevin Martin, RBC Capital Markets: Guillaume brings up a good point: Quebec, Ontario and Alberta are all forecasting larger borrowing programmes in 2018. This will be a consideration for these issuers as it relates to pre-funding their requirements.

Stevens, CMHC: We get our authorisation on how much we can borrow annually from the minister of finance. It's C$40bn for 2017 and we will not go beyond that.

However, about 18 months ago we introduced benchmark sizing language for our issues that allows us to be more flexible on size to better reflect investor demand on a particular deal.

One of the key aims of the CMB programme is to be very consistent and transparent in our approach to the market. We do not look to deviate too far from our standard sizing. That new language gives us a bit of flexibility to strike when the iron is hot — but it does not allow us to get too dramatically ahead of pace.

Love, EDC: EDC is in the same position: the minister authorises our annual borrowings based on our requirements. This allows us to be as transparent as we can with investors on what we are planning to borrow in a calendar year. There is some flexibility — if we are getting towards the end of a year and we expect that funding opportunities may not be there in early January, for example for black-out reasons, we may consider pre-funding. But it is not a big part of our funding strategy.

GlobalCapital: Kevin, what is the outlook for the domestic market?

Martin, RBC CM: One of the themes for Canadian public sector issuers in 2017 has been a steady compression in credit spreads throughout the year. Credit spreads have benefited from the general improvement in global credit conditions but the provinces also have done a lot of offshore funding in 2017, which may explain some of that spread compression. The provinces have issued 12% less in the Canadian dollar market thus far in 2017 versus 2016, while offshore issuance is up 33% year-over-year. Given the anticipated growth in many of the provinces' borrowing requirements, we are expecting an increase in domestic issuance for 2018.

Credit spreads for many of the provinces are near multi-year tight levels in the Canadian market. While it is possible that we could see spreads move a little tighter into the new year, we are mindful of the rapid pace of the tightening move. Despite the tightening in spreads, we have seen steady interest from domestic investors and a pick-up in demand from international investors. We are hopeful that these investor trends continue as we move into the first quarter of 2018.

GlobalCapital: For the issuers here what other problems or queries do investors — particularly investors looking to participate in the domestic market — bring up when you meet them?

Thompson, Alberta: It is difficult for international investors to buy public sector issues in the Canadian primary markets. That is because of the way we transact. I have not come up with a good solution to that problem.

Stevens, CMHC: CMBs are a little different from provincial issues in that we have an overnight marketing period. That allows international investors to participate. With a solely Canadian dollar programme, roughly 30%-35% of our issuance is placed outside Canada.

Renaud de Jaham
PSP Investments

de Jaham, PSP Investments: We have gone from having zero foreign investors to very decent participation from foreign investors in our bonds. We did that by reviewing the issuing process — we made sure it was a 24-48 hour process with a mandate announcement. Then we make sure that the books are open at least 24 hours so that Asian accounts and European accounts have time to come into the deal.

Manning, Ontario: It is challenging for international investors in different time zones to get into the primary provincial market. Leaving orders with dealers could be a solution. It would require investors to accept some volatility around spreads and outright levels, but the pricing level — where the issue is actually priced — is very transparent and it would be easy for foreign investors to confirm the pricing that they got was fair.

Thompson, Alberta: Have you tried that?

Manning, Ontario: We have talked to investors about it.

Caridia, RBC CM: We have seen that work a few times. We have seen some investors — particularly those based in Asia — able to participate in domestic provincial offerings. These investors do not have much opportunity to buy a public sector Canadian dollar issue away from some of the crowns. We are seeing more and more interest from international investors in the currency and in Canadian issuers in general.

Pichard, Quebec: I am surprised no one has mentioned carve-outs. We used carve-outs initially so that foreign investors could access our bonds in the Canadian market. That is one tool all the provinces are doing now to get international investors playing in the Canadian market.

Caridia, RBC CM: International interest in the secondary market is increasing — particularly from investors based in Asia. It is still hard for them to participate in some of the primary issues. The good thing about the provincial market is that there is so much liquidity that international investors can easily participate in the secondary market.

We have also seen interest from international investors for Canadian issues in euros. The underlying rates are so low in Europe that investors buying Canadian provincials can pick up a decent spread versus some of the European sub-sovereigns.

GlobalCapital: What are your plans for international issuance in 2018? It has been a bumper year for Canadian issuers in euros, dollars and sterling. Which is looking most attractive for 2018?

Stephen Thompson
Province of Alberta

Thompson, Alberta: We aim to issue 30%-40% of Alberta's programme in foreign currencies in the 2017 fiscal year. We are a little behind on that — at about 25% — but we have some room before the fiscal year ends on March 31, 2018.

We issue internationally to diversify the investor base. Alberta bonds were not easy to come by until a couple of years ago. Canada is not as large a market as we like to think it is. Our domestic spreads have tightened as we have moved more issuance offshore.

Our dollar issuance strategy is similar to that of our domestic programme. We do large liquid issues of $1bn minimum size, with benchmark terms, and tenors of three, five or 10 years.

We thought that euros would be our third currency of choice as it is the deepest market. We have had a hard time getting the arbitrage of a euro benchmark to work. The regulations make it difficult. The marketing is difficult.

The opportunity to print a debut sterling issue in 2017 just came to us. It is cold in Alberta in February so we went to London. Our debut was a screamer of a deal and we were delighted with it. We were particularly pleased with the number of investors buying it that had never purchased Alberta bonds before or had never bought a Canadian provincial bond before.

It turns out the sterling market is a bit finicky — we had a fantastic deal in February but a few months later we went to the same market and had a less stellar performance. We still got bonds away but it does not seem that the sterling market has the depth of, say, the euro market.

GlobalCapital: Is a euro deal something you are looking at for 2018?

Thompson, Alberta: Absolutely. We have loosened our arbitrage target. Traditionally if a foreign issue would swap back at a level through Canadian break-evens, then we would print it. We have softened our arbitrage targets because our programme has grown in size and because we are trying to access new markets. So we will pay up for size.

For example with a dollar issue, if dollars are weak and we print $1bn — that is about C$1.3bn. It would be difficult for us to do a Canadian issue of that size so we are willing to pay up a little bit to get the programme done. But we do not pay up so much that it would be unfair to our domestic investor base. Euros is something we are looking at, but in 2017 the pricing was too far off for us.

GlobalCapital: Quebec had a good year in euros.

Pichard, Quebec: In 2017 we printed our biggest ever euro deal — a €2.25bn benchmark. Proceeds were nearly C$3.5bn. In Canadian dollars our benchmark size is C$500m so the one euro deal was close to seven in the Canadian market.

Our 2017 issuance in euros has been very cost-effective but if the arbitrage moved away we would consider paying up. We have paid up in the past. We view euros as a core market.

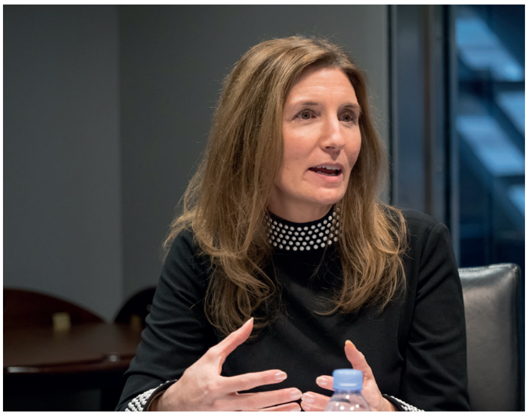
We want to do a benchmark in either dollars or euros every year. We want to be active in those markets, build a curve and keep the Quebec name in investors' minds.

In dollars we have been offering shorter dated floating rate notes, in addition to five and 10 year fixed rate benchmarks. We have reached new investors — new central banks — through those issues. As a province you cannot rely on the Canadian market to fund your whole programme year after year.

Love, EDC: EDC's funding needs are primarily in US dollars. Over the last three years 70%-85% of our funding has been in dollars.

That said, we have needs in many other currencies. We have issued in nine other currencies in the last three years to try to match up our funding with the currencies of our assets. We have issued in euros and have made a commitment to issue in the Australian dollar as well as the sterling market.

We met with sterling investors in June 2017 and they mentioned to us that they would be interested in a floating rate sterling deal — all our previous sterling prints have been fixed rate. In October we issued our first



Susan Love
Export Development Canada

floating rate sterling deal. It was really well received: we printed over £700m.

We look for opportunities to print in emerging market currencies — even if we do not have assets in that currency — because of the nature of our business. We have issued dim sum bonds in anticipation of future business in China in renminbi. It takes a while to establish a presence in a market and so our dim sum issuance is part of our strategy to open ourselves up to new markets.

Steski, Manitoba: We do not target international funding but we take advantage of it whenever it works for us. In 2017 just over 50% of our funding came from international markets. Euros didn't work for us but we did dollars, we did sterling and we did some Australian dollar one-offs. We will continue to access any of those currencies as long as it remains cost-effective for us.

de Jaham, PSP Investments: Our biggest currency exposure is dollars. We are about to establish a global debt programme in US dollars. It is quite a heavy process as we have to review some processes internally. In 2018, we expect to issue our term debt in the domestic market but you can probably expect an inaugural dollar global in 2019.

As we are a new issuer in dollars we first established programmes at the short end of the curve. We have a US commercial paper programme. The arbitrage works very well at that part of the curve.

Manning, Ontario: Ontario did 35% of its borrowing in international markets in 2017. That is the highest proportion of international issuance for us in about seven years. In 2017 we were able to return to the sterling market for the first time in six years.

We did two Swiss franc deals in 2017. That was the first time we have issued in that currency in seven years. We also did our first euro deal in 2.5 years, as well as printing in US dollars and Australian dollars. We do not target too precisely how much we are going to issue internationally but we think a range of 25%-35% makes sense.

GlobalCapital: You have returned to a lot of markets after several years' absence. What is behind it?

Manning, Ontario: The cost-effectiveness of a lot of these markets has improved. The euro market, for example, is a great market but sometimes it is very expensive for us.

Moreau, Department of Finance: Canada in 2017 issued internationally for the first time since 2015. We issued a $3bn five year global. The government of Canada covers its funding needs through domestic issuance of bonds and treasury bills. International debt issuance is specifically for the management of the government of Canada's foreign reserves.

GlobalCapital: Are you planning to issue internationally in 2018?

Moreau, Department of Finance: We review our foreign funding needs annually and we will do so again in the next fiscal year.

Martin, RBC CM: 2017 was a banner year for international issuance. The provinces have collectively printed C$29bn offshore to date. That is a record. We had very heavy issuance in the May-September period and then not too much since. Generally speaking, the level of international issuance by the provinces is a function of what is happening in their relative funding spreads and movements in the swap market.

GlobalCapital: Will 2018 be another bumper year?

Martin, RBC CM: If the conditions are right we could have the same aggregate amount of international issuance by the provinces. But I suspect 2017 may be an outlier.

Kevin Martin
RBC Capital Markets

Caridia, RBC CM: About 35% of provincial borrowing was in offshore markets in 2017. That is high compared to the previous five or six years. What we are hearing around the table is that there has been a lot of focus on the dollar market. I expect that to carry through to 2018. Dollars is deemed a strategic currency and out of that C$29bn of international issuance, around C$18bn was in dollars. I would not be surprised to see that number again in dollars by the end of 2018. For the other currencies — euros, Australian dollars, sterling — it really depends on the arbitrage.

Shingsar, RBC CM: Doing such a range of currencies has allowed the borrowers here to engage a broader

Jigme Shingsar
RBC Capital Markets

group of investors than we have ever seen. Some investors, particularly Asian investors, start out buying an issuer's paper in the Australian dollar market, but then go on to buy it in the dollar market or the domestic market too.

They are not all new investors — in fact, some large investors are returning after a very long absence. These investors used to be very active in the Canadian domestic market and in Canadian offshore issuance but have been in hibernation for some time. There is a fundamental shift in the demand patterns, which suggests we will continue to see good offshore interest in Canadian issuers.

GlobalCapital: Why has the demand changed?

Shingsar, RBC CM: Investors are looking for alternatives because of low yields in some parts of the world or the need to diversify out of some areas because of geopolitical risk.

GlobalCapital: Do you expect that trend to continue into 2018?

Shingsar, RBC CM: It is hard to say that things will increase, since we are already at a high, but we do not expect that trend to reverse in a big way.

GlobalCapital: What are issuers here planning for green bond issuance in 2018?

Pichard, Quebec: We issued our first green bond in February 2017. It was a very successful issue in Canadian dollars in global format. We piggy-backed on Ontario's experience, so thanks for that, Mike.

Manning, Ontario: We did the same with EDC's experience, which was helpful for our first green bond.

Pichard, Quebec: Green bonds is a fun market but it is a lot of work. We worked for close to two years to set something up that would reach the necessary high standards. You do not want to do a green bond and then embarrass the minister of finance because your programme fell short of those very high standards.

You also need projects to fund. You cannot borrow the money, put it in a designated account and wait for projects: you need to plan ahead

Thompson, Alberta: I have a fundamental issue with green bonds and with the SRI sector. As a treasury professional, I do not see where social policy belongs in my mandate and I have yet to see a project funded by a green bond that could not have otherwise been funded.

Green issuance affects liquidity and we will avoid them on those grounds alone. It also affects pricing.

To Guillaume's point, there is a tremendous amount of work to prove that the project you are funding — which you could have easily funded with a conventional bond — is green.

In Alberta, we had a political shift with the election of the last government and that government has, as part of its mandate, social agendas. Those are being rolled out and funded with our conventional bonds.

GlobalCapital: On Stephen's point about pricing: there has been a lot of discussion about whether green bonds are priced through issuers' conventional curves. Is anybody seeing that level of demand yet or do you expect to see it in the near future?

Alex Caridia
RBC Capital Markets

Caridia, RBC CM: There has been debate for several years over the premium green bonds should command — for investors and issuers. Issuers would say: "I'm going to have to put a lot of work in to print this issue so I would like to save some money because I've had to put a lot of processes in place." Investors would say: "Well, I'm buying a less liquid instrument so I want to be compensated for that."

Over the last year we have seen, for the first time, that some issues were priced through issuers' non-green curves. Whether that is enough to compensate issuers for the amount of additional work and processes they have to go through — well, you can argue that either way. The trend is clearly that pricing is going tighter for green bonds, though.

GlobalCapital: Stephen, would you ever see enough of a pick-up to persuade you to look at issuing green bonds?

Thompson, Alberta: I will always make rational financial decisions. That has been my pledge to our minister. The day that it is a more effective financing vehicle in my analytical mind, I would have no issue with printing a green bond. ▲

RBC Capital Markets

Growing Canada's International Footprint

- Proven SSA Focus
- Global Markets Expertise
- Multi-Currency Distribution

Alberta
AUD300,000,000
Dual-Tranche
3.10% due December 14, 2026
3.60% due April 11, 2028
(Aa1/A+/AA(H))
Sole Lead
October 2017

Ontario
CAD1,500,000,000
2.80% due June 2, 2048
(Aa2/A+/AA(L))
Lead
September 2017

EDC Export Development Canada | Exportation et développement Canada
CAD500,000,000
1.80% Green Bond
due September 1, 2022
(AAA/Aaa/AAA)
Joint Bookrunner
August 2017

CMHC SCHL
CAD5,250,000,000
1.75% Re-opening
due June 15, 2022
(AAA/Aaa/AAA)
Lead
June 2017

Ontario
EUR1,500,000,000
0.375% Global Benchmark
due June 14, 2024
(Aa2/A+/AA(L))
Joint Bookrunner
June 2017

Québec
USD1,250,000,000
2.75% Global Benchmark
due April 12, 2027
(Aa2/A+/A(H))
Joint Bookrunner
April 2017

Alberta
GBP650,000,000
1.00% due
November 15, 2021
(Aa1/AA/AA(H))
Joint Bookrunner
February 2017

Manitoba
EUR75,000,000
2.00% Fixed Rate Callable Bond
due February 25, 2047
(Aa2/AA-/A(H))
Sole Lead
February 2017

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