



Capital
Markets

2023 SSA Maple Roundtable

DECEMBER 2023

TABLE OF CONTENTS

03		Panelists & Moderators
04		SSA Key Themes
05		Funding Requirements
07		ESG program & Thematic Bonds
12		Maple SSA & the Canadian Market
17		Select RBC-Led Transactions in 2023

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SSA KEY THEMES

1

Steady Funding Programs and Diversification in Currencies: SSA Funding requirements remained mostly steady in 2023 compared to the year prior and issuers were able to navigate the continued challenging conditions of ongoing market volatility and central bank rate hikes. Market participants noted the underperformance of EUR relative to USD in late 2023 and that such continued underperformance has the potential to impact funding strategy in 2024. However, they remain focused on a diversified funding strategy which includes markets away from their core currencies of USD and EUR and would also seek to push for duration where possible.

2

Market Volatility and Investor Demand: Navigating a volatile market backdrop in 2023, SSA issuers tended to rely on their home currencies for most of their funding. While currency diversification remains a common goal, the final currency mix of SSA issuers' funding programs were ultimately determined by investor demand as well as cost of funds. In addition, more challenging execution conditions and timing constraints around central bank events and economic data releases made for narrower and more crowded issuance windows.

3

ESG Themed Bonds Driven by Investor Demand: ESG issuance continues to be favored among Maple SSA issuers and investors in the Canadian market; 13 out of the 16 benchmark CAD SSA transactions in 2023 have been in ESG format, ranging across Gender, Green, Health, Sustainable and Social bonds, and issuers noted that the space has also reached maturity in Europe. Market participants noted that they have a healthy pipeline of ESG projects that could support further themed bond issuance as well as sustainability-linked offerings.

4

Maple SSA Issuance Saw a Record High in 2023: The CAD Maple SSA primary market has seen an all-time high of C\$10.0bn print across 16 transactions in 2023, a 61% increase from 2022 (C\$6.2bn). Bank Treasuries remain the most active investor type in the Canadian Maple SSA primary market (~40% in 2023), with Central Banks / Official Institutions increasing from previous years driven by relative value to CMBs. Issuers were also able to extend duration in 2023 as the average maturity of new CAD SSA Benchmarks in 2023 was 4.5-years, up from the 3.7-years seen in 2022.

FUNDING REQUIREMENTS

Jigme Shingsar (RBC): Thank you all for joining. I'm joined by Daniel Wilson who runs our CAD SSA syndicate. The intention today is to focus on CAD, but this is also an opportunity to talk about your institutions more broadly, as there's a significant investor base in Canada that participates across the globe and in many of the other issuances as well. Can't believe how quick the year has gone.

Starting with ADB, how did your funding program go this year? Did it have any changes over the course of the year, as we've seen sometimes some issuers have changes in their funding program during the course of the year. Are there any new developments and do you have any thoughts about what your funding might look like next year?

Anthony Ostrea (ADB): Thank you Jigme and RBC team for having us again this year. We ended this year at around US\$29 billion in terms of our program, which included prefunding for 2024. That is consistent with the projected level at the start of the year. So far this year we've done close to 140 transactions across 25 currencies, the latter is a record for us, and included currencies that ADB has issued for the first time. We remained active in core markets, specifically USD, AUD, GBP, CAD, where we were able to access various points in the curve. Private placements were a nice complement for us, allowing us to average down our borrowing costs as well as issue in the long-end. Similar to the past, the average tenor for borrowings this year came in around 5-year. Looking into 2024, the borrowing program is expected to be higher to between US\$30 and US\$34 billion, inclusive of some pre-funding.

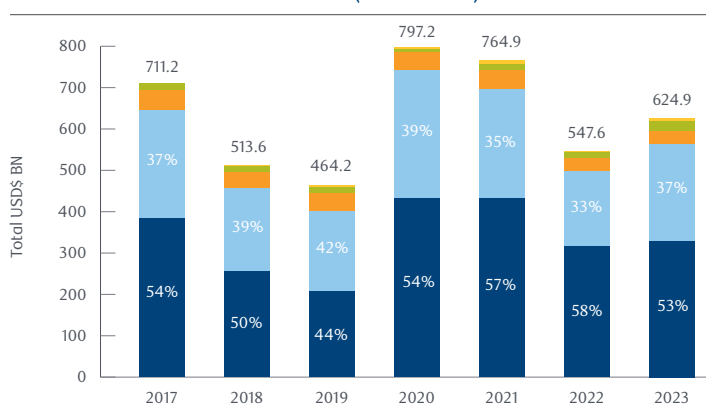
So far this year we've done close to 140 transactions across 25 currencies, the latter is a record for us, and included currencies that ADB has issued for the first time.

Anthony Ostrea (ADB)

Jigme Shingsar (RBC): We have seen some drifting in the EUR market as of late which is a big funding source for many issuers. Do you expect any of that to have an impact on anything you're doing?

Anthony Ostrea (ADB): We will remain flexible and nimble in our approach to enable us to pivot quickly and efficiently to market demands. This year we were not in the EUR market based on the basis. We maintain a presence in multiple markets, and we will continue to pursue diversification as a strategic objective. This may be less straightforward in 2024 if there is more reliance on the USD market, and how that impacts clearing levels and issuance windows in USD.

SSA SUPPLY BY CURRENCY BY YEAR (2017-2023)



*Excludes domestic sovereigns, includes EU, Sub-Sovereign includes Provinces, Municipals & Lenders

Jigme Shingsar (RBC): Thank you. Moving on to World Bank, Randy, I know you have had a different funding year. How is it going so far and do you anticipate any changes in terms of your strategy?

Randy Ewell (World Bank): Our funding program is expected to be between US\$50-55 billion for this fiscal year. Since we're on a fiscal year basis from July to June, we are approaching the midway point of our funding program and are on track with our target. We have been active in USD of course which is the largest source of our funding program, but we have been active in EUR as well. Both IBRD and IDA have each done a EUR benchmark deal, a IBRD 15-year and a 30-year for IDA. We have stayed active in EUR as well. We aim to remain diverse in the currencies that we do. We're quickly approaching 20 currencies so far this year and will seek to expand that. The average duration of our funding is currently about 7.5-year. Since the lending side of our balance sheet has long duration, we do strive to issue longer tenors if possible. We feel like we are ready for the January glut of funding activity.

Our funding program is expected to be between US\$50-55 billion for this fiscal year. [...] there's a push to be doing more in some of the emerging markets.

Randy Ewell (World Bank)

Jigme Shingsar (RBC): Are there any new developments at World Bank? There is a new head of the World Bank.

Randy Ewell (World Bank): Yes, The World Bank's new president, Ajay Banga has recently joined, and there is a different tone and tenor than some have seen at Cop28. Most notably is a formal

amendment to the World Bank's mission to now include the climate component which states the mission of "To end extreme poverty and boost prosperity on a livable planet." The livable planet component is a recent addition to codify the World Bank's mission of doing its work with an eye toward the environmental responsibility that we have in our project lending. Some of the other things from shareholders as well as Ajay are that they're trying to do more. We're looking for ways to stretch the balance sheet while maintaining the AAA rating. There are some discussions about how to do more in some of the emerging markets, and while we always stayed active there, I think there're a lot of different ways that we can enhance to help our borrowers mitigate exchange rate risk. There's a different tone and perhaps a bit more urgency on the work we are doing.

Jigme Shingsar (RBC): There's been a lot of talk about a hybrid issue and some of the initiatives were broad. Hybrids have a loan guarantee and different shareholders have different priorities. You have done a hybrid issue this year - can we expect more of that and what does that mean for the institution?

Randy Ewell (World Bank): Yes, you saw there was a shareholder hybrid activity for Germany. I think that we're still in the early stages of seeing how this can go, and it's a bit too premature to discuss much at this point, but we are looking at different options to expand what we can do and simply do more.

Jigme Shingsar (RBC): You have executed at least 1 transaction with a shareholder on a private placement basis, is there a potential that you could be doing more of that?

Randy Ewell (World Bank): Yes, we're looking at other ways that we can do that and expand that.

Jigme Shingsar (RBC): Great thank you Randy. Moving to EIB, can we have a comment on your funding program?

Jorge Grasa (EIB): First of all, many thanks for organizing the roundtable. I really appreciate being invited again. Our initial funding target at the beginning of the year was EUR45 billion. It increased to EUR50 billion during the year to reflect stronger disbursements on the lending side. It has already been completed, as we have issued around EUR49.8 billion in over 100 transactions across 16 different currencies this year. As always, our 2 core-currencies which are EUR and USD, have taken over 80% of the whole funding program, with EUR representing 49% and USD around 34%. Regarding the remaining currencies, they represented more than 15%, with GBP, AUD, and PLN representing roughly 4% each of the funding program. We were also present in the CAD market this year with a 5-year C\$700 million transaction. As all the issuers, we have been focusing on duration this year, which on average has reached around 7-years, and that has taken out some EMTN opportunities that we had seen on the shorter end of the spectrum.

Our funding target (was) increased to EUR50 billion during the year to reflect stronger disbursements on the lending side. [...] we have issued around EUR49.8 billion in over 100 transactions across 16 different currencies this year.

Jorge Grasa (EIB)

Jigme Shingsar (RBC): I think it's fair to say you have been an even a bigger issuer in the past. With all the continued pressures on your economies, is that something you think could change?

Jorge Grasa (EIB): We will keep on being a EUR borrower as most of our disbursements are in EUR. Maybe our EUR share goes down from 50% to 40% and then the USD goes up by a bit. Historically, EUR has been between 40% and 50% of the funding program and USD has been between 30% and 40%, so whatever we're not able to do in one currency, we try to do it in the other.

Jigme Shingsar (RBC): Right. You are a pioneer in the sustainable space in terms of the mix between sustainable and traditional bonds, can you comment on that?

Jorge Grasa (EIB): Around 1/3 of the funding program has been issued in CAB (Climate Awareness Bonds) or SAB (Sustainability Awareness Bonds) format in 2023. The size of the funding program will be larger in 2024 and the CAB/SAB share will depend on the evolution of CAB/SAB eligible disbursements.

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Jorge Grasa (EIB)

Jigme Shingsar (RBC): Any comments on any other new developments at EIB? Are you a part of the discussion or potential initiative on hybrids or is that too premature?

Jorge Grasa (EIB): Too premature to be honest. As always, we are monitoring the market and seeing what's happening in that space, but we haven't really started to prepare anything at all.

Jigme Shingsar (RBC): Thank you for that. Over to IADB, can you comment on the funding program?

Andre Delgado (IADB): We completed the program back in November and we already did some prefunding for 2024. We issued US\$18.8 billion (including prefunding) in 65 transactions across 10 different currencies. USD remains the core market as it's the currency of disbursements for the majority of our borrowers. This year was slightly different as we did 5 USD fixed-rate benchmarks including a prefunding trade priced in December. We did a 5-year, two 10-years, and two 3-years. Total in USD benchmarks was US\$10.75 billion. In addition, we remained active in strategic currencies, including CAD. We did two CAD trades this year, and we are confident we are going to maintain our commitment there in the future. We continue to look to diversify the investor base and remain attentive to issuance opportunities and currency diversification. In 2024, the borrowing program will likely be a bit higher, even considering the prefunding. I would say it is a US\$19 billion program plus or minus US\$1 billion. It's slightly larger, but not significantly larger.

As for new developments, we are now revising the new institutional strategy to align the Bank with the evolving needs from the Latin American and the Caribbean region. That's expected to be launched during our next annual meeting in March 2024. The pillars being prioritized are social issues such as food security, poverty, inequality, health, and education. Climate change remains in the forefront, and we are also focused on sustainable, digital, and physical infrastructure and other areas such as gender diversity and inclusion. Another development at the institutional level I wanted to mention is the creation of the Office of the Special Advisor on Climate Change and the Office of the Special Advisor on Gender and Diversity. The new offices are tasked to improve internal coordination and elevate these strategic priorities. This organizational change shows the commitment of the Bank to climate change and gender and diversity as part of our strategic agenda.

ESG & THEMATIC BONDS

Jigme Shingsar (RBC): Thank you. That was a great overview of your institutions and funding programs. Moving to the ESG section, Andre what are your views on the continued growth of ESG demand, or the underlying trend of more awareness and compliance? You've just gone through the framework, and we have seen some mixed headlines on ESG recently. Do you just see this as a necessary check, or just a speed bump on the way?

Andre Delgado (IADB): It continues to be an important part of our mission and our purpose, and it is part of our DNA. The sustainability and development of Latin American and the Caribbean is very important, and we work closely with our member countries with focus on those areas that I already mentioned which are health, education, infrastructure, and climate action.

On the back of that, we are also updating our sustainable development bond framework. The original sustainable development bank framework was done in 2019, and now we are updating it to reflect the recent developments and updates in the ICMA principles and guidelines. We are also taking on board investor feedbacks we have received over the years after issuing SDB. We are expecting to have a second party opinion on the updated SDB framework, to be finalized in the first half or first quarter of 2024.

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Andre Delgado (IADB)

Jigme Shingsar (RBC): Thank you Andre. Any comments on hybrid capital?

Andre Delgado (IADB): We have been following recent developments around hybrid capital. We are not looking at the moment for a capital increase as we have sufficient capital to cover a sustainable level of disbursements in the near future. Therefore, we are not looking closely into it, but rather monitoring developments. We remain focused on optimizing our balance sheet and are happy to explore possibilities for more efficient use of our balance sheet as always.

We are updating our Sustainable Development Bond framework and taking on board investor feedback and experiences we have been accumulating over the years issuing in the ESG market.

Andre Delgado (IADB)

As mentioned, we are updating our Sustainable Development Bond framework and taking on board investor feedback and experiences we have been accumulating over the years issuing in the ESG market.

The update aims for the realignment of the SDB program with the latest ESG market developments, especially ICMA principles and guidelines. This is to ensure that the framework remains effective, and the Bank stays at the forefront of sustainable finance best practices. On that note, we are looking to have a focused strategy with targeted issuances in ESG format in specific markets, but not necessarily all of them. The idea is to issue in those markets where there is a clear benefit and investor interest. We would like to cater to our investor base, taking into consideration the range of investor views regarding ESG. At the same time, we also want to attract a dedicated base of ESG-focused investors in the relevant markets. The CAD market for instance is a good example, because we have recently done all the benchmarks in SDB format, including the very first SDB done when the original program was launched in 2019. While SDB and CAD remain very close to our hearts, we might be considering issuing conventional bonds in CAD too.

Jigme Shingsar (RBC): Aldo you've been with the development of this market from the very beginning. What are your thoughts generally, in terms of the direction of the market and the continued momentum with some of the challenges around things like energy prices and so on, leading some to question whether it is slowing some of their activities. How do you see that playing out in your institution?

Aldo Romani (EIB): My view is positive: use-of-proceeds Green, Social and Sustainability (GSS) bonds are increasingly producing value for investors and for society. This is because of the development of a market framework which is progressively making it possible to separate facts from words based on objective criteria established by law. I am referring in the first place to the EU legislation on sustainable finance, notably the EU taxonomy regulation and the regulation on European green bonds; the same approach, however, is also informing the initiatives of official authorities in a growing number of jurisdictions beyond EU borders. The goal is to help markets assess “sustainable” bonds by enhancing the comparability of their use of proceeds – for more efficient pricing of these as well as of complementary investment opportunities. This endeavour gives substance to the promise of transparent and reliable impact that was made at the very inception of the green bond market. It thus reinforces the *raison d'être* of this segment by strengthening its public policy value.

For market practitioners, it is not just a matter of static compliance with the law. In practice, legal prescriptions for sustainability disclosures can only be implemented progressively. For both issuers and investors, green bonds provide an ideal tool to kickstart and manage the improvement of disclosures (which includes the creation of the necessary infrastructure) as a process reflecting their individual circumstances - well before full regulatory compliance and Taxonomy-alignment. This voluntary, step-by-step approach can combine classification, investment selection and reporting in a tailor-made fashion.

Properly structured, this type of green bonds permits markets to monitor how things are changing in practice rather than in theory, giving them the opportunity to reward progress in the right direction. The Taxonomy-based mapping of the use of proceeds, the setting of meaningful action targets, the pragmatic implementation of those targets in a way that can be monitored timely and uniformly across jurisdictions are all essential components of a pragmatic strategy of gradual application of the Taxonomy and gradual alignment with the EUGBS.

A realistic approach to the transition of the economy is needed to engage the economy in the proactive delivery of meaningful results, and an important part of the solution is to empower markets to drive this process via efficient pricing of the required sustainable financing. This explains the policy relevance and support that the EU affixes to green bonds. Ad hoc “regulation”, a legislative instrument of the EU which applies directly at national level, has been put in place to secure fair competition in a truly single green bond market – to facilitate and enhance the efficiency of investment decisions. This framework thus creates a strong narrative for green bonds also from the perspective of the capital markets union. It is entering into force on 21 December and will apply on a voluntary basis from the end of 2024, providing investors with a touchstone to steer the transition more effectively, both within and outside the EU.

The gradual application of the technical screening criteria as well as their gradual refinement where appropriate are equally instrumental to this policy. In the EU, a Platform on Sustainable Finance (PSF) has been created by law to facilitate the dialogue between practitioners and legislators, to foster usability and promote implementation. In 2023, the PSF has worked on a Compendium of Market Practices that will be published in the first few weeks of 2024 and shed light on practices that can be taken as reference by users¹. EIB and ESM have co-led the workstream on public sector and collected evidence covering over 90% of green bonds issued by this sector in the EU. The prevailing approach to Taxonomy-based disclosures is an initial focus on substantial contribution coupled with a gradual integration of other elements of the Taxonomy (Do-No-Significant-Harm, Minimum Safeguards), which are generally deemed to require more time. In 2024, the PSF is bound to provide dedicated guidance in this field – for issuers that are not in scope of EU legislation, e.g. public sector and non-EU issuers – to accelerate a gradual and market-driven uptake of the EUGBS. EIB and ESM will lead this workstream with the help of market practitioners.

EIB is very supportive of this pragmatic approach and has applied it consistently for the past few years, proving its heuristic value for concrete action. After a timely reorganization of the available information according to the logic of the Taxonomy, the Bank has gradually aligned its CAB-allocations to Taxonomy-eligible lending activities with the technical screening criteria for substantial

1. The Compendium has meanwhile been published and can be accessed [here](#). The core conclusions are summarised on pages 176-179 of its [Annex](#) and were commented on by lead experts in a [webinar](#) broadcast by the Commission and the PSF on 6 February.

contribution of the Climate Delegated Act. This result, audited with reasonable assurance by KPMG, now permits to focus on detailed fact finding on DNSH and MS for the same lending activities as they continue to disburse. After a comparison of EIB's environmental and social principles and standards with the provisions of the Taxonomy regulation, EIB's evaluation experts are now performing a detailed analysis at project level, starting with the least controversial sectors, clarifying which information is available, and ascertaining whether missing information can be provided by the final users of the funds. This process, which will generate positive knock-on effects also in other areas of the Bank's activity, is being facilitated by the lending officers, who add a welcomed reality check in terms of the usability and workload issues raised by their interlocutors regarding the regulatory requirements. The results of this analysis will be presented to the PSF, putting its review and guidance on a tangible footing.

To summarize: in the EU and elsewhere, the market-driven legislative frameworks under development are making a clear distinction between ESG as a generic label, whose substance is difficult to assess and compare uniformly, and ESG as a targeted approach with focus in the first place on substantial contribution to primary sustainability objectives to be measured by reference to objective criteria. This is positive for the credibility of GSS use-of-proceeds bonds and therefore for their demand in the market.

[...] investors are increasingly attentive to the substance that Climate and Sustainability Awareness Bonds, and more generally use-of-proceeds bonds, provide.

Aldo Romani (EIB)

Daniel Wilson (RBC): Around 30% of your program this year was in CAB/SAB format. How do you see demand developing for these two products and for green bonds more generally in the markets outside of Europe?

Aldo Romani (EIB): When it comes to funding, relative market conditions drive of course the distribution and denomination of the bonds. Windows of opportunities are seized when and where the market permits. This said, and all other conditions equal, my impression is that not only within Europe, but also outside Europe, investors are increasingly attentive to the substance that Climate and Sustainability Awareness Bonds, and more generally use-of-proceeds bonds, provide. For example, I clearly remember how we initiated the exchange with Australian investors on the EU's approach - just after the entry into force of the EU taxonomy regulation in July 2020. Fast forward to today, and we see that Australia has joined New Zealand as member of the International Platform on Sustainable Finance (IPSF) and is working on its own sustainable

finance taxonomy, drawing from the experience of other international taxonomies, notably the EU's. I think that there is an advantage here for those that have looked forward rather than backward in the dialogue with investors on these subjects, because certain categories of mind are coming forward everywhere - based on the tangible results obtained in the meantime. Parameters and standards may change from one market or jurisdiction to the other, but increasingly, there is a shared approach to focus, firstly, on providing more clarity, and, secondly, on enabling a higher degree of comparability in the market. This is the bread and butter of the EU approach, which, it should not be forgotten, was developed in the context set by the G20 Green Finance Synthesis Report of September 2016 and taking into account the China Catalogue of 2015. It is not by chance that EIB and the China Green Finance Committee published a joint White Paper on the need for a common language in green finance and presented it to the European Commission's High Level Expert Group on sustainable finance in 2017.² This comparative work is now finding an echo not only in Australia and New Zealand but also in Southeast Asia. In 2023, the annual general meeting of the Green Bond Principles took place in Singapore, and the Monetary Authority of Singapore took the opportunity to present the "Singapore-Asia Taxonomy". This framework extends the classification to include activities that are not contributing substantially to sustainability objectives but do no significant harm to those objectives, or whose performance can be improved to this level. These concepts, originally developed but not yet implemented by the European Union, permit a more holistic interpretation of the transition process. The EU Platform on Sustainable Finance published them in a dedicated report in March 2022 - with input also by EIB's project experts. From this point of view, I think that everywhere this common wavelength is increasingly tuning to one single frequency. This provides also a very thrilling dimension to our activities within the context of the EU Platform on Sustainable Finance, which has a very strong focus on usability. As mentioned, a priority of the EUPSF in 2024 is to provide guidance on gradual application of the Taxonomy and gradual uptake of the EU Green Bond Standard, based on the conclusions of the recent Compendium of market practices, which reflect the evidence collected by EIB and ESM in the EU public sector green bond issuance segment last year. This guidance is thought in the first place for green bond issuers that are not in scope of the Corporate Sustainability Reporting Directive, which includes non-EU issuers. EIB and ESM, who are in charge of this workstream, hope to include into this practical guidance meaningful and constructive input from issuers and investors worldwide.

Jigme Shingsar (RBC): Thank you Aldo, as usual you're very deep in the detail of the developments there. We always rely on you for that. I'll turn to Randy at the World Bank. I almost look at the two of you, given that you're based out of Washington, sort of developing markets in the region. Aldo just talked a little bit about the continued momentum forward in terms of frameworks and trying to find more commonality in terms of standards. Any comments there in terms how World Bank is going about things and just your general view on ESG going forward?

2. You can access the White Paper [here](#).

Randy Ewell (World Bank): The team stays very engaged in all those developments. I know Colleen Keenan is very engaged with the Green Bond principles, and Sezin Paydas of course as well. At the World Bank, we are committed to a holistic approach. All of our bonds, if they're not green, they're sustainable development bonds where the proceeds fund our sustainable development lending activities. We continue to issue green bonds, and on occasion we'll raise awareness bonds based on some of the projects the World Bank might be doing to demonstrate transparency, as investors would expect. But overall, we have to be true to who we are, we are ultimately a social bank. Improving people's lives and opportunities is our core work, and from the World Bank's standpoint, climate action and working to improve people's lives cannot really be separated, they are ultimately inextricably linked. Our bond proceeds are used to achieve a positive environmental social impact, and there's no clear way to separate those two.

For example, we found it difficult to strip out green. 100% of our projects that get approved are reviewed for climate action and fund climate action as a matter of course. Other things that can be integrated in those projects, which is around 42% of funding by dollars, includes funding towards climate related lending. About 92% of all our loans include climate related funding. That is something that's simply woven into the fabric of what we do, so that's the holistic approach that we'll take. We aim to stay very transparent in everything we're doing. World Bank projects are tracked and can be reviewed online, and the project cycle as well is quite robust. With the teams on the ground, the experts that help with the technical aspects of our lending and review progress, adjusting, improving, and making course corrections on projects.

We do have a lot of data. We generate an annual impact report and we're open to take feedback on the report. In the report we maintain a subset of green bonds that are ringfenced to fund more of our targeted climate project lending, but everything else is gets pooled together and falls into the pool of funds that support our sustainable lending for positive social and climate action outcomes.

[...] We continue to issue green bonds, and on occasion we'll raise awareness bonds based on some of the projects the World Bank might be doing to demonstrate transparency, as investors would expect.

Randy Ewell (World Bank)

Jigme Shingsar (RBC): So, Randy, you were very early to go with a sustainable bond approach in terms of the broader funding program. Is there still an advantage to maintain a separate green bond program in the context of what you just talked about, how are you essentially due diligence your entire program?

Randy Ewell (World Bank): I think it's helpful in the sense that, as Aldo mentioned, it builds awareness about things that are important for investors to consider. Ultimately, we stay the course in our holistic approach. We will of course continue to issue green bonds as reverse private placements and we do a fair amount of those. I think kind of to my earlier point, all our projects are screened for climate. We don't see environment considerations as being a unique thing for us. It's part of who we are and what we do. We've taken a more holistic approach and we'll work to continue to remain transparent and improve our impact reporting.

Jigme Shingsar (RBC): Thanks. Aldo, I think you wanted to raise a point.

Aldo Romani (EIB): EIB's mission is to contribute to the development of the internal market in the interest of the Union by making recourse to the capital markets. If the EU legislators establish rules that foster the Capital Markets Union to support sustainable development, it is clear that the climate bank of the EU cannot refrain from abiding by those rules. There is also a very important practical task to be performed by the EIB in this context: operationalize those rules on the ground and flag areas that could be improved. As mentioned before, the upcoming EUPSF-Compendium is flagging a number of usability issues that may be addressed concretely in the context of the upcoming reviews of the Climate Delegated Act and the Disclosure Delegated Act. This feedback into the PSF and from the PSF into the European Commission is for the benefit of the wider market. Now, there is space for any kind of approach to sustainable issuance and reporting if this approach is implemented in a systematic way and contributes to transparency, reliability, comparability and accountability of relevant information. In fact, one also can be conducive to the other over time. This said, there is one area I think important to highlight. There is growing demand in the market, both from within and outside the EU, for technical assistance and advice on how to best facilitate the dialogue with EU investors. EU investors are increasingly orientated by the dispositions of the evolving EU legislation on sustainable finance, which has the Taxonomy at its centre. Here, I believe there are strong opportunities for cooperation between institutions like ours because in fact, the application of the logic of the EU Taxonomy, which is straightforward, helps to clarify points that are core everywhere, making them more comparable - improving the conditions for interoperability. If extra-European issuers aim for increasing support from EU investors, they will benefit from using the same language of those investors. This will permit them to present in the most effective way what they are doing and to compare their criteria with the European criteria. Local legislative frameworks retaining that logic can help this comparison, providing a more solid basis to the market to assess the differences. I think that there is a lot to do here. You might have heard of the global green bond initiative (GGBI) that was presented at the beginning of September. It is an initiative promoted by the European Commission with the EIB as coordinator of a group of initially European development financial institutions. This initiative aims to coalesce international cooperation among IFIs to promote the issuance of green bonds in emerging economies via investments

and technical assistance. It may be a good venue for developing a common language to facilitate cross border capital flows.

Jigme Shingsar (RBC): Great, thank you. Why don't I bring Anthony in this conversation. You've done a lot in terms of gender issuance etc. How are you looking at various themes in your portfolio and how have investors reacted to some of this?

While there is universal demand for our green bonds, there are particular pockets of investors that require a green label.

Anthony Ostrea (ADB)

Anthony Ostrea (ADB): We have been active in Gender and some of our other themes. I wanted to highlight that ADB has 2 main ESG products. We have our green and blue bond framework, and our thematic bonds, which is comprised of 4 themes, water, health, gender and education. While there is universal demand for our green bonds, there are particular pockets of investors that require a green label such as in Swedish Krona, where we've had success in tapping. The thematic bonds are investor driven and provides the balance of responding to investor demand to be associated with specific themes that ADB is involved in, meanwhile highlighting specific projects or initiatives that ADB is funding. While initially a product targeting private placements, we've rolled it out successfully in markets such as AUD, CAD and NZD, particularly in gender and health. We've been successful at it. Since our inaugural Gender issuance in 2017, we've issued more than US\$7.5 billion in Gender bonds. In Health, which was also issued first in 2017, we've issued more than US\$3.5 billion. We continue to look at other areas where investors may have interest, and where we also have a healthy pipeline of projects, and these projects are ongoing.

ADB has 2 main ESG products. We have our green and blue bond framework, and our thematic bonds, which is comprised of 4 themes, water, health, gender and education.

Anthony Ostrea (ADB)

Jigme Shingsar (RBC): Are there any new themes that you're particularly focused on, or you're just very much responsive to investor demand?

Anthony Ostrea (ADB): We're always on the lookout for new themes. We also routinely receive inquiries on new themes which requires checking to see whether ADB has projects to support that theme.

There are a few projects that we are working on, but nothing new to announce at this juncture.

Daniel Wilson (RBC): Anthony, you touched on gender and health as the true larger of the thematic themes of the issuance that you've done. What about the Benchmark markets?

Anthony Ostrea (ADB): For these themes, we have been active in AUD, CAD and NZD. I think that's primarily where we've found that investors are receptive to those themes. In EUR the green label is what resonates with investors.

Jigme Shingsar (RBC): Thanks. Randy, there's been more recent headlines and perhaps it's more of a North America, US phenomenon, but headlines in the Wall Street Journal, suggesting that flows into ESG products are slowing and or reversing near term. Obviously, number of candidates have almost been anti-ESG particularly some of the more conservative parts of the country. Have you seen any actual impact in terms of the investor demand out of North America in particular, but anywhere else that would reflect this? Or is this just headlines?

I think that sustainability-linked bonds will be gaining traction in the market.

Randy Ewell (World Bank)

Randy Ewell (World Bank): Not in our space. I don't really see it. I think that you are correct in saying in North America, we may see a bit more pushback. As an example, I took a trip to two different states in the U.S. and on the same trip, there were two very different strong views. There are different views about ESG, and sometimes local legislative bodies may decide to push back based on financial interests and to protect some local industries. Others have stated that they're not keen on the direct negative screening, they believe unduly targets something seen as important locally, but these things will flesh themselves out. There were some things that I've heard from a local perspective in the US. But ultimately, at least for the World Bank, our mission is poverty and sustainability lending. We will remain true to our mission and do it responsibly with an aim to a positive sustainable outcome. We will always aim to employ best practices which will incorporate climate considerations in our focus of fighting extreme poverty. I think they understand that and have not taken issue with our work. There're economic issues sometimes at play in the US where some of the states, and some of the regions may have felt that they are under attack, but that's all outside our space and our mission. From our issuance and from the demand for our paper, no I haven't really seen any change. These things are far less controversial in Europe.

Jigme Shingsar (RBC): Right, but staying with theme, ultimately, demand for ESG remains quite robust. We talked about green bonds

and sustainable bonds, but do you see the market for sustainability-linked bonds?

Randy Ewell (World Bank): I think that the prospects are positive. A lot of that has been largely primary offerings, but I think the trend suggests a shift towards more public offerings. Anything can change with the markets, but I think that sustainability-linked bonds will be gaining traction in the market, and we should expect to see more.

Jigme Shingsar (RBC): Andre, any comments on sustainability-linked bonds? Do you see yourself being more active in that and do you see that sort of evolving into more of a public market? Or are we ways away from that.

Andre Delgado (IADB): I think the SLB market has been picking up quite a lot recently, mostly amongst sovereigns and corporates. Especially out of our region in Latin America, we have seen sovereign issuers active in establishing SLB frameworks and successfully issuing benchmark bonds, with KPIs linked to gender and climate change, in line with their views in terms of sustainable development.

The Bank's mission is to promote sustainable development in Latin American and the Caribbean. The main challenge for us to issue SLBs would be to find KPIs that would work for this product. The Bank already reports KPIs on every project and every project is

We're monitoring SLB markets for opportunities in private placement where size aspiration is smaller.

Andre Delgado (IADB)

sustainable. The key is to have KPIs that could be aggregated. For SDB bonds for instance, we take advantage of KPIs that we are already reporting in our Corporate Results Framework and will combine those in one single report. We're monitoring SLB markets for opportunities in private placement where size aspiration is smaller and could be backed by some specific project with a defined KPI that could be embedded and mirrored into a SLB issuance.

Jigme Shingsar (RBC): Thank you. Any comments from EIB on the sustainability linked bonds? The market for that in terms of mainstream interest?

Aldo Romani (EIB): In the context I delineated before, sustainability-linked bonds may be structured to clarify the issuers' plans regarding changes in the Taxonomy-based composition of their activities over time. Unequivocal reference to objective and comparable core criteria for the assessment of those activities would put a tangible edge to any kind of statement that may be made on transition efforts, creating a synergy with use of proceeds bonds. This approach may for example be useful in clarifying how activities outside the perimeter of the EU Taxonomy could be defined, indicating a viable path for the improvement of their performance. This is a crucial aspect in terms of transitioning an entity, or even an entire economy from a certain status to another, which is eventually the objective that should be in front of everybody's eyes, intentions, and plans. At this moment, for whomever is taking the sustainability in serious terms, there are challenges of course, and there are clearly more difficulties in the social areas rather than in the green ones. But the same logic can be applied in both areas. And in fact, it is exactly thanks to the comparison mechanism provided by the market that the goodness of certain proposals regarding evaluation criteria can be assessed more objectively for the benefit of the wider market.

MAPLE SSA & THE CANADIAN MARKET

Jigme Shingsar (RBC): Thank you very much. Obviously ESG is a very hot topic, or very fundamental as you all pointed out. I'm assuming that will continue to be very front and center for you, and quite frankly to your investors as well.

Now, moving to the Maple market, the Canadian SSA Maple markets saw a new record in 2023, with an all-time high of C\$10.05 billion printed across 17 transactions, which is a significant increase from the previous year, and broadened the breadth of the issuers that have come to this market.

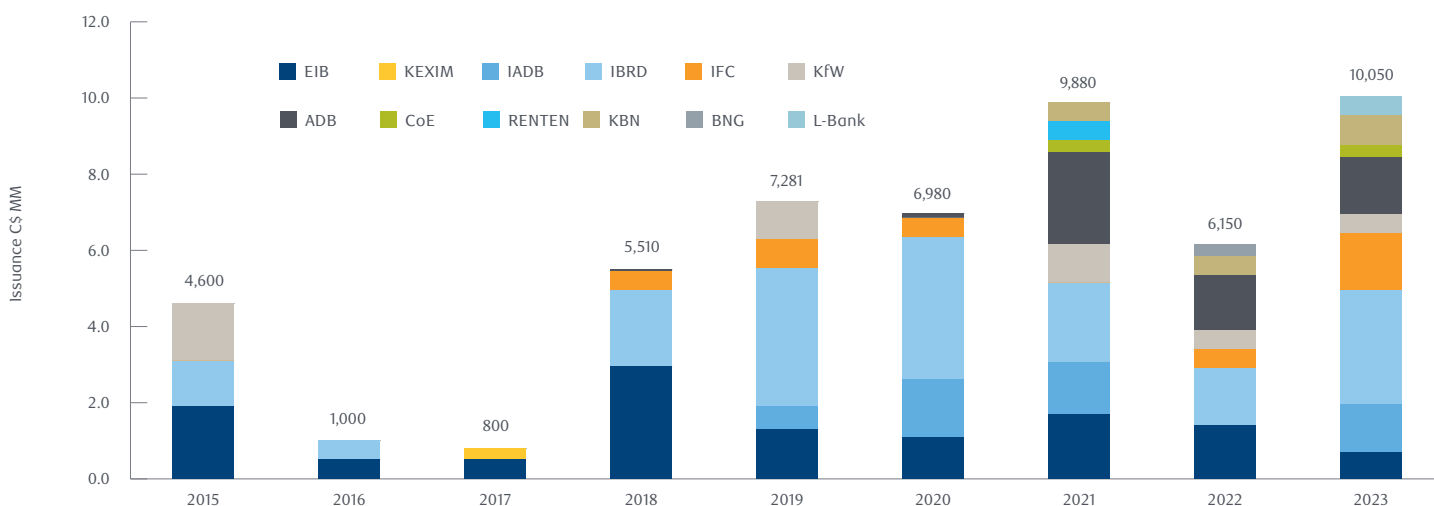
All of you have been very active and long-standing issuers in the Maple market and really the benchmarks. How do you see this Canadian market fit into your program? How do you feel about your experience today? Has it been developing in a way that you've hoped? Why don't I start with Anthony. ADB has been very active over the last few years. How has that worked for you and how do you look at the market? Is it a strategic market for you?

The Canadian SSA Maple markets saw a new record in 2023, with an all-time high of C\$10.05 billion printed across 17 transactions.

Jigme Shingsar (RBC)

Anthony Ostrea (ADB): We issued twice in CAD in 2023, a C\$500 million 5-year in May followed by a C\$1 billion 3-year in June for C\$1.5 billion in total. In 2022, we issued two C\$1.45 billion 3-year offerings.

ANNUAL MAPLE ISSUANCE



Source: RBC Capital Markets

CAD is an important market for us, and we remain hopeful that it continues to stay constructive. ADB is a cost pass through bank so ultimately, our borrowers are directly affected by decisions we make in the funding market. As such, we have always had an eye on the after-swap cost of issuances in all markets versus what we can achieve in USD. I think the flexibility that we have in terms of being able to issue across the curve, including the short end such as last year, allowed us more shots on being able to maintain a presence in this market.

CAD is an important market for us, and we remain hopeful that it continues to stay constructive. [...] We will definitely continue our commitment to the CAD market going into 2024.

Anthony Ostrea (ADB)

Daniel Wilson (RBC): Can you see yourself being more active in taps in the CAD market, and as a result, coming to the market more frequently than twice a year?

Anthony Ostrea (ADB): OID has been an issue for us, not only in CAD, but in all non-USD markets, which prevented us from tapping our lines in these markets. We do not have any predefined targets for the number of times we will access a market in any given year. We will take whatever is there and is a function of investor demand and the after-swap cost as we are beholden to our borrowers.

Jigme Shingsar (RBC): Randy, you've been in this market very long and often. You were able to get a little more duration done this year. How do you feel about the market, has it lived up to your expectations? Do you see the underlying trend being positive and any comments on your experience so far?

Randy Ewell (World Bank): Yes, I do view the development to be very positive, we had the news about Canada housing issuance that was possible to be going away. We were whipsawed back and forth in terms of where that was going to finally land, but certainly even with the recent announcement that there seems to be space for SSAs to do more in Canada. We've had long-lasting success with Canadian investors. IBRD has been very active, regular issuer of CAD benchmark bonds and it's a very important market for us. I believe it's been 13 straight years that IBRD has issued large benchmark issuances in CAD.

IBRD has been a very active, regular issuer of CAD benchmark bonds and it's a very important market for us.

Randy Ewell (World Bank)

As you mentioned, in 2022, we got one trade done in January then the market seemed to have fallen away. That was a bit of a struggle, but this year we were very happy with the results when we issued the 5-year in January, then we were able to tap that by another C\$900 million with additional demands that we were aware of, then we were able to do a C\$1 billion 7-year print. Those are the sorts of trades that we love because we are very duration focused. This year, we've raised C\$3 billion in CAD, previously we've raised as much as C\$4 billion and we intend to stay very active. We also have IDA that is closely looking at the CAD market as potentially a new currency for its funding program. IDA has done 5 currencies so far, and CAD is one that we are closely considering to expand IDA's funding program.

Jigme Shingsar (RBC): Thank you Randy. Andre, can you share your experience in the CAD market and how you feel the market is developing in terms of the investor base and what you'd like to see?

Andre Delgado (IADB): CAD has been historically an important currency for us, and we have been regularly active in that market this year. We were happy to launch two transactions in around the 5-year sector with a total of \$1.25 billion Canadian dollars issued. Both trades were done in SDB and were very successful trades. We benchmark ourselves against the U.S. dollar curve. For any currency that we issue that is non-U.S. dollars, we look at a cost perspective versus U.S. dollars. We saw opportunities to offer value for CAD investors in 2023, and we hope that this trend will continue next year. We have also been paying close attention to developments around the CMB program. With the expectation that the net supply of CMBs will be reduced in the market going forward, we will look

for opportunities for maple issuers like us to fill the gap. The CAD SSA market is a market that has been relatively constant over the years, and it is of strategic importance for us. In terms of duration, we target a 4–6-year average, aiming to keep a curve in the market and the CAD market allowed us to achieve that. We will definitely continue our commitment to the CAD market going into 2024.

For any currency that we issue that is non-U.S. dollars, we look at a cost perspective versus U.S. dollars. We saw opportunities to offer value for CAD investors in 2023, and we hope that this trend will continue next year. [...] With the expectation that the net supply of CMBs will be reduced in the market going forward, we will look for opportunities for maple issuers like us to fill the gap.

Andre Delgado (IADB)

Jigme Shingsar (RBC): Thank you. Any comments from EIB in terms of your experience recently? You've got a long-standing presence in CAD as well; do you see any changes on that front?

Jorge Grasa (EIB): CAD is an important market for us, as we are a diversified currency issuer. CAD market is probably 1 of our top 5 markets by volume: some years there are more opportunities to issue and this year the Bank was able to do one transaction - a new 5-year C\$700 million offering in June, which was positively received by investors. We see Canadian investors as very sophisticated investors and we are always happy to be present in this market. We hope that in 2024 we will be able to do a bit more, and that we can bring longer maturities to the market, for example a 7 or/and 10-year. Pricing currently does not look too attractive compared to other markets, but hopefully there will be some opportunities along the year. The decision to launch in ESG format or "plain vanilla" format, depends on the needs for ESG bonds internally and the pace of disbursements to eligible projects.

We see Canadian investors as very sophisticated investors and we are always happy to be present in this market.

Jorge Grasa (EIB)

Jigme Shingsar (RBC): Great. EIB did some preliminary work quite a few years ago in CORRA, and we've seen that market develop here. Is that a format that you'd be open to issuing as well?

Jorge Grasa (EIB): Indeed, we did a first test trade back in 2019. As long as there is enough demand, it opens to a new class of investors that are interested in FRNs, and pricing is similar to a Fixed Rate Bond, we could definitely look at CORRA. It would be nice to issue a C\$1 billion CORRA trade.

Jigme Shingsar (RBC): Excellent. I briefly mentioned the average duration this year was a bit longer. Randy, you mentioned that duration is something that you want to focus on. What do you think is the biggest impediment to going further out of curve as far as CAD goes because you obviously spent a lot of time talking to investors around this very topic.

Randy Ewell (World Bank): It's just really the cost back to USD. Of course, when you go longer you have the provincials issuing, then you have the spread to Ontario, which becomes a little bit more complicated. It is a project that we would certainly love to try to make it work so we can only hope that in the future the stars align. The 7-year issuance worked well and lined up nicely for both investors and IBRD from a cost perspective, but those opportunities come and disappear quickly, so we must stay on top of the CAD market.

Jigme Shingsar (RBC): In terms of benchmarking to your USD curve, do you view this as enough of a strategic market that you have some flexibility around the levels versus USD within reason? Is the diversification in the market important enough that you have some flexibility to look at a cost benefit on that?

Randy Ewell (World Bank): We don't have a rule about that and certainly we won't stray very far from our USD curve, but we do aim to have a strategic presence in markets overall. For us it's very important to also have a diverse investor base across markets. We have some tolerance of what we can do versus our USD curve, but overall, we aim to stay strategic. We have spent a lot of time working on optimizing hedge costs back to USD hedges, and in some markets, it really is the factor that makes or breaks a trade for us in non-USD markets.

Jigme Shingsar (RBC): Thanks Randy. Similar question EIB, in your case, you've got in some ways the ability to look at both your USD curve and your EUR curve, which you maintain equally. How do you benchmark your CAD issuance? Is it versus your EUR curve or do you have some flexibility?

Jorge Grasa (EIB): Our primary focus will be the USD curve as the investor overlap is mainly with EIB's USD issuance, but as we are mostly a EUR borrower, we have to keep an eye on the EUR curve too. We decide to access the market on a case-by-case basis.

Jigme Shingsar (RBC): Any comments from ADB? You mentioned it was important, do you have some flexibility in looking at this market?

Anthony Ostrea (ADB): We have been fortunate enough such that our issuances in the past have been competitive to USD. If there

comes a point where the relative cost versus USD is an issue, we will assess it on a case-by-case basis and look at the broader portfolio of funding opportunities where the arbitrage versus USD is better.

Jigme Shingsar (RBC): Andre, I think you've looked at it. You did your first benchmark Sustainable Development Bond in Canada. How much flexibility do you have, or do you value the diversification enough to have at least some minimal flexibility amount relative to costs?

Andre Delgado (IADB): We've been looking into the all-in cost back to USD, but we also look to achieve a balanced issuance mix. Diversification is important for us, and we look at the maple market as a key strategic market. It's always desirable in strategic markets to keep a presence in front of the investors and have a current curve as well. So, we factor out all that and try to be consistent and regular. I think it's important for investors that we have regular issuances in the market and that's part of our decision-making process. We try to strike the right balance between these two aspects: The cost basis comparing to USD and the impact of diversification that we value very much as well.

Jigme Shingsar (RBC): Great, that sounds very clear. The last topic that I mentioned in our agenda was secondary market liquidity. All the issuers on here are essentially top tier issuers who are considered not just because of the credit quality, but also in terms of market perception and liquidity. Randy, you've spent a lot of time with investors up in Canada, and in fact you are here now, as with Andre. When you speak to investors, what are you hearing regarding the secondary market liquidity for Canadian SSAs and your bonds in CAD in particular? Is it improving or a concern?

Randy Ewell (World Bank): For those who have been buying us for a while it's not a concern for them. I think they're happy. But as we've sought to broaden the investor base, and we approach the investors who are considering SSA exposure, we do occasionally get questions on liquidity. We've also noted that not all dealers are SSA secondary numbers, so we continue to push them to market SSAs more. But for the most part those who buy IBRD are happy with the product and don't question liquidity, we work with the dealers to try to see what can be done in terms of information flow to make that a little better.

Jigme Shingsar (RBC): Thanks Randy. Andre, is your experience similar to Randy's? Your long-standing investor base has an idea of what they expect on liquidity and therefore are prepared for that, but what about new investors?

Andre Delgado (IADB): Our experience is similar to what Randy mentioned. Sounds like liquidity is less of an issue in CAD markets than in other markets. Also, we have the impression that our bonds are usually very well placed, and the secondary market activity is usually limited. It's not non-existent, but it is limited and in smaller sizes and clips as compared to other markets. We as an issuer can help improve liquidity through larger outstanding amounts, which could be done through tapping, and always ensuring strong

support from our underwriters in the secondary market. Ultimately, we believe that this should address any issues and concerns from investors. That said we haven't heard anything in terms of liquidity from Maple Market investors.

Jigme Shingsar (RBC): That's good news. Any comment from EIB on that?

Jorge Grasa (EIB): From discussions with investors, secondary market liquidity doesn't seem to be a big concern. We have never really got any questions on how we are trying to improve secondary market liquidity. Our bonds are well placed, but if investors do want to sell, there are always dealers willing to trade them.

Jigme Shingsar (RBC): Right. Anthony, you did a roadshow across Canada recently. Anything to add to the comments that have been made on liquidity?

Anthony Ostrea (ADB): Nothing material basically the same comment. Investors have commented that liquidity has actually improved compared to years ago. If you look at the offer side, liquidity has been constructive given regular SSA issuances. And on the bid side, that's also benefiting from a wider dealer community and investor base.

Jigme Shingsar (RBC): Great. Thank you unless anyone's got any other comments on CAD, why don't I move on to this last catch-all question. Do you have any particular concerns looking into 2024? We've been through a lot of volatility, there's a lot of elections next year, obviously potential for market dislocation. Why don't I start with Andre, any particular concerns as we head into the new year?

Andre Delgado (IADB): Ideally, we would like to see less volatility in the market. I think that's a function of interest rates across the globe going up too fast. Markets took some time to adjust and to find stability. Given the increase in volatility, this has been a challenging year in many markets. Another topic is the competition for capital and consequently for the issuance windows. The windows have been shortened as more economic data releases gained relevance due to the uncertainty. As more economic data releases have the potential to create volatility in the market, this reduced the number of windows available. At the same time, everybody is issuing a little bit more. The main challenges in 2024 will be similar to 2023. Hopefully volatility and pipeline will be more manageable.

Jorge Grasa (EIB): In previous years the market was more focused on certain topics that created heightened volatility during the year. But this year, I would guess that everybody is already thinking that the fight against inflation is done, and central banks will start tightening as soon as the first or second quarter in 2024. There seems to be nothing of concern right now and let's hope for no surprises that could increase volatility in 2024.

Anthony Ostrea (ADB): Echoing the comment on the issuance windows, we saw a stat about how issuance windows have been

declining over the past several years so one needs to really be nimble and flexible. The ability to diversify and obtain cost-efficient duration in the public markets are our largest concerns next year. I don't think access is an issue, but it really boils down to pricing across markets and tenors.

Jigme Shingsar (RBC): Thank you. I want to thank our panelists, your support of RBC and the Canadian dollar market is very important to us. Thank you again for sharing your thoughts. I will follow up with regard to transcripts.

Randy Ewell (World Bank): I think it's already been said by the other panelists. Whether some investors are increasingly more opportunistic I don't know, but there are indications that some investors that had been sitting on the sidelines during the hiking cycles may be returning. It feels like there is some growing sentiment that the market may have reached the peak of its hiking cycle. How quickly that happens, or whether rates will remain higher for longer remains to be seen, but I do feel like investors have become more comfortable to put cash to work. Panelists here have already spoken about the difficulty of finding good issuance windows in a backdrop of volatility and with growing funding programs. I can attest it has made things very complicated. Hopefully there's a bit more stability next year and we don't have to wrestle each other for too much for execution windows.

Our issuance continues to be heavily oversubscribed, particularly so in Climate and Sustainability Awareness Bond formats. Outperformance continues in the secondary market, where sustainable bonds are generally bid. This highlights the interest of investors.

Aldo Romani (EIB)

Aldo Romani (EIB): While there may be good reasons to end this roundtable on a word of concern, as a naturally born optimist, I would like to invite to look forward and always for opportunities rather than difficulties. Our issuance continues to be heavily oversubscribed, particularly so in Climate- and Sustainability Awareness Bond formats. Outperformance continues in the secondary market, where sustainable bonds are generally bid. This highlights the interest of investors; not only green investors, but also investors that see these bonds perform well. It is a favourable dynamic for the distribution and trading of these bonds.

One wish I also think worthy to conclude these remarks with is the "Kantian shift" of the capital markets that Christine Lagarde mentioned in a recent speech. She referred to the philosopher's famous idea that you are supposed to do the right thing simply

because it is right. “Aus Pflicht”, as they say in German. It is clear that for effectively acting in this way you must operate from a basis of goodwill. This is something that we should wish ourselves generally, and can certainly praise the European Union for in its pursuit of an efficient capital markets union at the service of sustainable development. There are excellent opportunities for a structural engagement in this area, and I really wish that this can benefit us all.

Jigme Shingsar (RBC): Great, thank you all very much for continue to support this roundtable, supporting RBC, and the Canadian market. Just going back to the discussion around secondary market, liquidity, et cetera, I think if we can continue to find a collective way to get more issuance into this market, I’m sure that will also enhance the liquidity and help Canada live up to what I’ve described as a semi strategic market for all of you. Thank you again for sharing your thoughts.

SELECT RBC-LED TRANSACTIONS IN 2023

Canadian Government Issuers & Pension Asset Managers/Funds

 US\$1,000,000,000 5.50% Senior Notes due 2033 AAA/Aa1/AA+ Joint Bookrunner November 2023	 C\$8,500,000,000 Dual-tranche CORRA FRN due 2029 & 4.25% Senior Note due 2034 AAA/Aaa/AAA Lead November 2023	 US\$2,000,000,000 4.80% Senior Notes due 2028 AA(H)/Aaa/AA Joint Bookrunner November 2023	 C\$1,250,000,000 4.90% Inaugural Debt Offering due 2033 AAA/Aaa/AAA Joint Bookrunner October 2023
 C\$400,000,000 4.50% Senior Notes due 2028 -/Aaa/AAA Joint Bookrunner August 2023	 A\$1,000,000,000 4.40% Senior Notes due 2027 AAA/Aaa/AAA Joint Bookrunner June 2023	 US\$4,000,000,000 3.75% Senior Notes due 2028 AAA/Aaa/AAA Joint Bookrunner April 2023	 US\$1,500,000,000 4.25% Senior Notes due 2028 AAA/Aa1/AA+ Joint Bookrunner April 2023
 US\$3,500,000,000 3.625% Senior Notes due 2028 EUR2,250,000,000 3.00% Senior Notes due 2033 AA(L)/Aa2/AA- Joint Bookrunner April & January 2023	 GBP750,000,000 4.375% Senior Notes due 2026 A\$1,300,000,000 4.40% Senior Notes due 2026 AAA/Aaa/AAA Joint Bookrunner February & January 2023	 C\$2,250,000,000 3.60% Senior Notes due 2028 AA(L)/Aa3/A+ Lead February 2023	 US\$2,000,000,000 4.50% Senior Notes due 2026 AAA/Aaa/AAA Joint Bookrunner February 2023

SELECT RBC-LED TRANSACTIONS IN 2023

Green Bonds and Sustainable Finance

 <p>C\$300,000,000 4.15% Green Bond due 2053</p> <p>AA/Aa2/- Joint Bookrunner December 2023</p>	 <p>C\$100,000,000 4.90% Sustainability Bond due 2033</p> <p>-/Aaa/AAA Lead October 2023</p>	 <p>C\$100,000,000 4.40% Green Bond due 2042</p> <p>AA/Aa1/AA Lead September 2023</p>	 <p>C\$1,000,000,000 4.40% Green Bond due 2030</p> <p>AAA/Aaa/AAA Joint Bookrunner August 2023</p>
 <p>C\$1,000,000,000 4.40% Health Bond due 2026 C\$500,000,000 3.30% Gender bond due 2028</p> <p>-/Aaa/AAA Joint Bookrunner June & May 2023</p>	 <p>C\$600,000,000 3.90% Green Bond due 2032</p> <p>AA(L)/Aa2/AA- Joint Bookrunner June 2023</p>	 <p>C\$1,500,000,000 4.05% Green Bond due 2032</p> <p>AA(L)/Aa3/A+ Joint Bookrunner February 2023</p>	 <p>C\$1,000,000,000 4.15% Green Bond due 2029</p> <p>AAA/Aa1/AA+ Joint Bookrunner February 2023</p>

Maple Offerings

 <p>C\$1,000,000,000 4.25% Senior Notes due 2030</p> <p>-/Aaa/AAA Joint Bookrunner September 2023</p>	 <p>C\$500,000,000 4.25% Green Bond due 2028</p> <p>-/Aaa/AAA Joint Bookrunner September 2023</p>	 <p>C\$1,000,000,000 4.50% Green Bond due 2026</p> <p>-/Aaa/AAA Joint Bookrunner August 2023</p>	 <p>C\$300,000,000 4.85% Inaugural CAD Benchmark due 2026</p> <p>-/Aaa/AAA Joint Bookrunner August 2023</p>
 <p>C\$300,000,000 4.57% Social Inclusion Bond due 2027</p> <p>-/Aaa/AAA Joint Bookrunner July 2023</p>	 <p>C\$700,000,000 3.90% Senior Notes due 2028</p> <p>AAA/Aaa/AAA Joint Bookrunner June 2023</p>	 <p>C\$750,000,000 3.40% Sustainable Development Bond due 2028</p> <p>-/Aaa/AAA Joint Bookrunner May 2023</p>	 <p>C\$300,000,000 3.625% Senior Notes due 2028</p> <p>-/Aaa/AAA Joint Bookrunner April 2023</p>

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