,,,

Tuesday, March 23, 2021

This is the Private Wealth Podcast with Manulife Private Wealth.

Speaker Participants

Leslie Brophy

AVP, Head of Investments and Sales, Manulife Private Wealth

Frances Donald

Global Chief Economist, and Global Head of Macroeconomic Strategy, Manulife Investment Management

Jenifer Rush

Head of Global Manager Research, Manulife Investment Management

Presentation

Leslie Brophy, AVP, Head of Investments and Sales, Manulife Private Wealth

Hello everyone. Welcome and thank you for taking the time to join us for Manulife Private Wealth's spring webinar. In the spirit of International Women's Day this month, today we have 2 highly accomplished and well respected women from Manulife Investment Management joining us. As we enter a new season, we are looking forward to the global macroeconomic forecast and financial trends the coming quarter may have in store for us, which means the rise in real interest rates and the slowing growth of money supply are both on our radar. At Manulife Private Wealth, we aim to simplify your life by leveraging our team of trusted professionals from across Manulife Investment Management who partner with Manulife Private Wealth, so you feel better equipped when making financial decisions. The upcoming webinar is prepared solely for your information. For those interested in a replay or in sharing the contents of this call with others, we are recording this segment and a copy of the recording will be available to participants on our website at manulifeprivatewealth.ca, or LinkedIn at Manulife Private Wealth. If you have any requests or questions after this call, please feel free to contact a member of the Manulife Private Wealth team. Our first speaker, Frances Donald, is the Global Chief Economist and Global Head of Macroeconomic Strategy at Manulife Investment Management. She analyzes the economy and capital markets for potential opportunities and risks and serves as a thought leader, both within the firm and externally. As a senior member of the firm's multi asset solutions team, she coordinates global macro research, assists in the team's return forecasting process and contributes to

the portfolio positioning views. And in case you missed it, Frances was recently appointed to the federal government's women-only task force to help advise policymakers on the economic recovery ahead of the spring budget. Congratulations Frances, and over to you.

Frances Donald, Global Chief Economist and Global Head of Macroeconomic Strategy, Manulife Investment Management

Thank you, Leslie, that's very kind, and I'm always really excited and touched to be invited to speak with the Manulife Private Wealth clients. I have to apologize for not being on camera, I had a very COVID themed morning. My electricity went out during some renovations that I'm doing, which just about all Canadians are doing. I then ran out of battery power and needed to go somewhere, but of course we can't go anywhere and finally managed to realize my mother had actually been vaccinated so I could make it over to her house in time for this call. So certainly highlighting many of the economic themes that we could discuss in the next 10 minutes or so, and, of course, you're always welcome to access some of our thought leadership on the website or follow me on Twitter, or just reach out to Manulife Private Wealth and we can chat about things that are of value to you. I thought I might do something a little bit different this morning, which is not to give the standard economic outlook, which I get to do on these calls, but really talk about some of the evolution of consensus thinking and what might have changed relative to where we thought 3 months ago. Three months ago was when we all had to write our annual outlook. The funny thing about annual outlooks, I got to tell you, even Reeves who writes them know that they're really 3 to 6 months outlook and that's particularly true in an environment of extreme uncertainty which yes, we are still very much in. So what I want to do is walk you through 4 pillars that framed our initial 2021 outlook, and then talk about how each one of those has evolved with new information in the past 3 months and some of the nuance that we have to apply to it. One of the things that I love about my job is I get to be a chief economist and strategist on the by-side, so instead of just going on TV and being able to proclaim we're either bullish or bearish, we can add this nuance and that's one of the values of having a research team and strategists embedded within an investment team over in Manulife Investment Management. So let's start with the first pillar of 2021. You've likely heard these pillars before. 2021 was supposed to be a year of 2 halves. The first half of the year was expected to really be a continuation of 2020. Slow vaccine rollout, ongoing high levels of unemployment, really problematic economic environment with a very weak growth, and yet in the second half of the year, the expectation was that we would see substantial amounts of rebound activity. Some of the strongest economic activity that we have seen on record. Some of that is base effects lapping last year's worse recession in modern history gives you a really good year-over-year comparison. Some of it is pent up demand. I'm sure, like

111

you, or like me, we're all excited to go to restaurants, maybe go on a little vacation even if it's not that far, that demand hitting the system and this is one of the reasons why we can advocate being risk on in the first half of the year because we knew the market would look through a lot of bad data, look forward that 6 to 12 months and know that the economy was on the path of recovery. And one of the key points we've made here is that we could disagree on whether the true reopening happens in June or August, but the market is big picture thinking right now and understands they can look to bad data into the second half of the year, good data. That was the starting place for 2021 and yet over the past 3 months, what we've seen is a little bit of a nuance to this view and that is that the first half of the year is not turning out to be as bad as we expect it. Some of that is a much faster vaccine rollout in the United States. Some of that is more money coming through, particularly from the U.S. ongoing support in Canada, and the data is just not as terrible as we would have thought it could be. It's still bad, but I'll give you an example. Retail sales in February in Canada were expected to be down 3%, they were only down 1%, and as you know, markets don't care what data comes in at, they care whether it comes in above or below expectation. And yet as we look forward in that 6 to 12 months, one of our concerns and maybe a risk we should be monitoring is that we pulled forward a lot of that good news into the first half of the year and my team is increasingly looking for what is going to be the good news we don't yet know that we can price into the second half of the year. It could be another infrastructure package in the Unites States, it could be much faster than anticipated hiring, even though hiring is already expected to be quite strong. It could be that we see a reacceleration in China activity, that's been a little bit weak lately in the first half of the year. There's a variety of things that could provide that extra push in the second half of the year, but we no longer think that a better vaccine rollout or government money is going to be the second half of the year driver that really got pulled forward into the first half of the year. Now the second pillar that defined our 2021 outlook was really about sectors, and over on our asset allocation team, we are big believers in the next 3 to 6 months from the best plays are going to be regional, sectoral relative value plays trying to dig below some of the headline equity indices or headline regions and play some of these individual stories. Now some of that comes from, as we've talked about before on this call, COVID-19 was predominantly a services recession, which we've never had. All of our recessions in modern history have been manufacturing driven and yet throughout COVID, and if you've read it, any of our work, you know, we've really been big believers that manufacturing would substantially outperform services for the very simple reason that manufacturing just didn't have to comply or have to comply, they were not as exposed to the necessity with social distancing as what we saw on the services based activity. So our view was that in 2021 as economies reopened, the lockdowns were lifted and vaccinations were put into arms, that we would see services activity catch up to manufacturing

activity and the two would be really kind of gangbusters for 2021. And here yet we're seeing a little bit of a nuance, as well, and our evolution of this theme is that we're still going to see sizeable catch up in services activity, but we maybe want to be cautious about the manufacturing and goods sector here. And one easy way to think about this is if you bought a Peloton in 2020, if you bought 2 new monitors, if you bought all that durable good stuff, you're probably not going to buy it in 2021 as you shift your focus towards the goods activities. We've also seen such a substantial outperformance of goods activity in the first 3 months, everything industrial production related, everything energy related did extraordinarily well and we know that most of this activity is means reverting. So, for example, in our Canadian asset allocation portfolio, some of the tactical plays that we made we took energy out of the portfolios 2 weeks go because we felt like it had run enough and it's already dropped down pretty significantly since that period. We could expect instead of seeing services catch up to manufacturing, an inversion of those activities in 2021. Now, when we think about the third major pillar of our view, and this one of course getting the most amount of attention from our clients, from CNBC, just about anybody, is insulation, and actually, I found this funny, we have never historically seen as many people Google inflation as we have in the last 2 months. Now, our inflation view is still the same. Our inflation view is that we're going to see very elevated levels of measured inflation, that's your traditional CPI index, the one that flashes across the screen on BNN or CNBC, that's going to hit one of the highest levels in the past decade. It's going to be over 3% in March, April and May, and maybe into June, as well. A lot of that is, again, these base effects. I was just talking to my team, we were reminiscing on COVID and someone said remember the day that oil went negative and I'm laughing one day, I'll tell my son the day oil went negative and how that seems completely out of the realm of possibilities right now, but indeed in season we're at 55 dollars in year-over-year terms compared to negatives that will create sizeable year-over-year inflation. We've also seen some pretty sizeable supply chain disruption. Supply chain disruptions increase prices temporarily, but not sustainably, and the best example I can give you of that, forgive me if you've heard it, it's just the best one I could find. Talking to my colleague in early January in Hong Kong, she was telling me how her children are very disappointed with her as they had not this year had a real North American Christmas tree. It was very important to her children and I said what kind of Grinch are you that you wouldn't get them their Christmas tree and she said they're so difficult to get and the ports are so clogged that an American Christmas tree in Hong Kong costs 850 U.S. dollars. Now, that's not typical, that's an example of supply chain disruption. Christmas trees in Hong Kong will not be 850 dollars next year and if you were by chance going to buy one in July of this year, they also would not be that expensive. So the confluence of these factors is going to create some very short term very elevated inflationary pressures in our headline indices. And yet what

policymakers have told us is they don't hike interest rates when inflation is higher in the short term. They hike interest rates when they see a sustained period of above 2% inflation. Now, they may get there by 2023 and 2024 and we do believe that most central banks will be hiking interest rates by 2024, but based on everything that we do, what we expect to see is in the second half of the year inflation will come down to 2 to 2 and a half per-cent. Pre-COVID, our forecast was 1 and a half to 2%, so we are integrating more fiscal stimulus, more monetary stimulus into the picture but try as I might, I could not get measured inflation to run above 3% much farther out than June. It's about where that damage comes to an end. Now that doesn't mean that we're not going to have material focus and I suspect as we go into the next few months, we're going to see headline inflation at 3%, you might see in the U.S. as much as a million jobs created as we open those restaurants back open, this is going to create more tension for markets, you are going to see a lot more chatter about the central banks wanting to taper purchases. I wouldn't be surprised if they introduced that in the next 3 to 6 months. It will be a period where you'll hear 2 sides to the story, one is look how much inflation there is in the system, and the second is really trying to emphasize how temporary it's going to be. I'll make another comment about inflation, which is that we talked about measured inflation because that's what drives central banks, but we're clearly seeing tremendous amounts of price increases in a variety of areas and I believe asset prices. We of course see it in lumber prices. We see it in house prices. These will calm in the second half of the year, but the impact on everyday Canadians and Americans in these rising prices has been I think something that will be a sustained problem overtime. It's not a surprise to me that a lot of central banks are trying to look for new ways to measure inflation so throughout COVID, the Bank of Canada, for example, had an adjusted inflation measure in order to try to capture the price changes of things people were actually buying. Nobody was buying airplane tickets, so it didn't matter that prices had cratered. People were buying houses and housing prices were rocketing really high. So the inflation conversation, one that I would really urge a lot of heavy thinking about, so be aware those prices will rise in the next 3 months, that's not the main point of contention. The point of contention is do they stay high. My vote is no, but very credible, very smart people will make the other side of the argument so, you know, we'll write more on it, but that's the lay of the land. And last but not least the fourth pillar of the 2021 outlook that we wrote in January was pretty consensus at the time was that we would see extraordinary amounts of stimulus. Monetary policy and fiscal policy were going to still be the dominant market drivers. Here, too, we require a little bit of nuance as we evolve following the last 3 months of data. We are still going to see a historic level of stimulus from central banks and from government, but we've probably seen the peak amount of new stimulus, which is to say we're not going to see further easing from central banks. They're going to be cutting rates more or increasing purchases more and, as much as we have a huge amount of

government money in the system, for both the U.S. and Canada, we do believe that we have seen peak stimulus. By that, we mean in Canada, we are not likely to get more than we currently have. We will see a roll off for a lot of these support programs in 2021, but in the United States, the focus has now changed toward redistributed forms of fiscal and that does imply that we are going to see tax increases or at least discussion of tax increases in the United States on the horizon. I think that is a market risk that we should be monitoring, but it's most important to the long end of the curve and I suspect in the next 2 to 3 months when we have the opportunity to have this chat again next quarter, we're going to be talking a lot more about whether tax increases will dampen this recovery or whether the recovery can hold on to it. So certainly throwing out a lot of information out today but hopefully that gives you a way or a view into the way we're thinking about the world over in our asset allocation products and over in Manulife IM, and of course we're always here to chat with you if you have questions. I'll pass it back to Leslie and thank you again for your time in dialing in today.

Leslie Brophy, AVP, Head of Investments and Sales, Manulife Private Wealth

Thank you, Frances. Always interesting observations, and I know inflation is on everybody's mind, so really glad that you addressed, but it does look like there is more good news on the horizon and look forward to hearing from you in the next couple of quarters. Manulife Private Wealth looks at your entire financial situation to help define and achieve your financial goals. To that end, we employ a rigorous process of checks and balances for the management of your money. For regular listeners to this webinar, you'll likely recall last June we invited Manulife Investment Management's Canadian head of asset allocation, Jamie Robertson, to speak with us. Jamie and his team worked closely with us to develop 5-year forward-looking strategic asset allocations, which take into consideration 140 distinct asset classes. Their correlations, forecasted returns and standard deviation, to mention just a few of the many key variables that are used to determine the 5-year forecast. The next step at MPW's process is to find, evaluate and monitor the investment manager's MPW advice onto our platform to deliver the investment returns on your investment portfolios. As many of you know, Manulife Private Wealth's investment counsellors select which investment managers to deploy across your investment portfolios based on the extensive work undertaken by Manulife's internal global manager research team who carefully research and assess the universe of available investment managers against the needs of our high-net worth customers. The global manager research team is responsible for reviewing, analyzing and monitoring the quality investment managers who work with MPW to ensure they meet Manulife's stringent requirements. The team is staffed by an experienced group of investment analysts many of whom are CFA and CAIA charter holders. 111

Our next speaker, Jennifer Rush, is the head of global manager research Canada at Manulife Investment Management. In addition to the work Jennifer and her team do for MPW, the broader team is responsible for the assessment and monitoring of the investment managers on Manulife's and John Hancock's platforms globally, which includes recommending additions to and removals from their respective platforms. Jennifer, over to you.

Jenifer Rush, Head of Global Manager Research, Manulife Investment Management

Thank you, Leslie. Thank you, everyone, it's a pleasure to be here and it's an honour to be part of this platform. I always like to hear what Frances has to say, so thank you. Yeah, Leslie gave a little bit of an overview of what global manager research is. I thought I would go over a little bit of what we do and then I thought I'd talk a little bit about 2020 and a little bit about how we think about ESG. So, as you've heard, this is a global team. We have offices in Dublin, Boston, Toronto, Hong Kong, and it's one process. So, if you were seconded tomorrow from the Boston team to the Hong Kong, you would know exactly what you're doing, the process is the same everywhere. We do hire and fire the managers on the platform for Manulife Private Wealth. We also monitor the portfolios for Manulife Private Wealth and all of our clients for their adherence to more about philosophy and process. So while you might think that the first thing we would look at would be performance, performance to us is more of an outcome, so we're hiring those managers on the basis of a philosophy that they've laid out to us, a process they've laid out to us and then we're going to take that information, we're going to look at the performance, we're going to look at the holdings and we're going to look at the characteristics and we're going to decide if that matches what they say they're going to do because any manager we bring on to the platform, we're really trying to think about what is that performance blueprint, how are they going to behave, what are the right market conditions for this strategy, what are the wrong market conditions for this strategy, really just trying to think about how the manager will perform. So, you know, what do we do, we have frequent interactions with portfolio managers, including an annual on-site which I will talk about. As Leslie said, we're a 28-person team, it's an average of 16 years of experience. I think it's 19 CFA charter holders and 6 CAIA charter holders. So, well credentialled. I thought I'd tell you a little bit about our process, I know some of you would know this, but our process really revolves around an annual on-site due diligence and that is the most important meeting for any of our teams, for any of our managers. And that is a meeting that is usually 4 to 6 hours, it's preceded by a lot of work. There's an annual due diligence questionnaire, there's a pre-meeting with the team thinking about how you want to approach that and what do we want to get out of that meeting. That meeting is going to have not just the investment team, it's going to have the firm representatives, it might have the CIO, it's going to have

the risk managers, we might see compliance. So we're really trying to dive deep into that process and into the people and into the firm. On a quarterly basis, we're going to do things like a quarterly call with any portfolio manager on your platform and those are generally more about positioning performance, you know, new names, new additions to the portfolio, new subtractions from the portfolio, really just building a relationship with that portfolio manager and starting to learn a little bit more about how they think and also there's information that comes out of those calls that you might not get otherwise. You know for global manager research; we do a monthly team meeting. Now part of that team meeting is those hire and fire decisions. They first go to the team meeting and also continuing education in 45-minute sessions once a month and that could be something like a mercer coming in to talk to us about how they look at ESG, it could be MSCI talking to us more about characteristics, or it could be a value manager coming in to talk to us about their thesis. Weekly, we have team meetings and daily, obviously, we're monitoring performance on a daily basis, not to think about the performance, but to think about, you know, a gain stock or a GE in a day just to make sure we understand what our portfolios are holding and whether there's something we need to follow up on, but global manager research really doesn't focus on day-to-day performance. When you think about how we look at the managers, it's about twothirds qualitative, so the people, the organization, the process, the philosophy and about one-third quantitative, so performance, risk characteristics, that's the way to think about it. I thought I would just talk a little bit about 2020 review. You know, for global manager research, one of the key things we do is that annual on-site, we do it in the manager's office, so obviously in March of 2020, we had to stop traveling, so all of our on-site meetings were executed virtually for the rest of the year and continue to be executed virtually. We would like to get back into managers offices, but they have been successful, they have been good, they have covered enough information and we've been able to get the information we need, so the virtual on-site has worked. I think it's important to get into those managers' offices and sit across from them face-to-face when you can, but this has worked and it's worked well. You know in 2020 also we had our team meetings continued, we had no interruption in the way we work as a team. We actually onboarded a new hire in Asia successfully and things that we did that we'll talk about a little bit more in detail, but we updated our annual due diligence questionnaire, so that questionnaire was about 100 questions, it's now 124 questions. That goes out to every manager on the MPW platform and any platform that we cover. It's expected to be filled out in a 4 to 6 week period. It's expected to be filled out in a fulsome manner and what we did last year is we took a look at it and said: where do we need to add more questions, where do we need to augment the questions. So our ESG questions. We've always asked ESG questions, we took a look at what we've been offering, we updated them, we augmented them as we needed to, we leveraged Manulife IM's capability. Manulife IM has a strong ESG franchise

under Peter Mennie and Maggie Childe. We went to them and said: here are the questions we're asking, what are we missing, are we missing anything. We actually went to our partners at mercer and MSCI and thought about are there pieces that are missing from our due diligence questionnaire. There really weren't major holes in our questionnaire, but we wanted to make sure. We added diversity, equity and inclusion questions last year, so we're thinking about those questions. We added about 8 questions there and some of them are more open ended, tell us what you're thinking about, tell us what you're doing, but we also ask what concrete plans do people have to address DENI issues. We introduced new quantitative scoring for ESG and we introduced a new ranking system for ESG in 2020. So we did a lot in 2020. Other things we did in 2020, we did some searches for Canada retirement, and I mention those because we did leverage some of the Manulife Private Wealth platform and we are very careful about this. Manulife Private Wealth's platform is a very special platform. It is a discreet and it has cachet, but you have some managers there that we were able to look at in different asset classes for the group retirement platform and I don't want anyone to worry about that, group retirement is closed platform, it's an institutional platform. We would never look at anything on the MPW platform for Manulife mutual funds or even a missile. We recognize the unique platform you have. But it is a great thing to have that leverage across Manulife. We got a lot of quantitative work that's been ongoing in 2020 and I thought now I'd just talk about ESG a bit more. So I talked to you a little bit about the 2020 refresh of the DDQ, we've always asked these questions and why do we ask the questions and what do we do with them. So we asked the questions in advance on the due diligence questionnaire. We go into that annual meeting and we ask people to then walk us through what they're doing. Tell us again what you said in the DDQ. Are you saying the same thing in the DDQ that you said in this meeting? We're really trying to make sure that what they say they're doing and what they're doing are the same thing. And, really, at the bottom line if we want to understand what they are doing on ESG. We would rather know what you're doing than what you think you're supposed to tell us what you're doing, so that a really big element for us. You know, I would say ESG has really evolved. Five years ago, I recall walking into a manager's office, listening to their ESG practice, showing us some slides and then when we dug deep, they couldn't explain the slides. That doesn't happen today. People are much more attuned to it, they're much more invested in it, they understand the importance of it and, sure, some of it is probably still not as deep as it should be, but I would say we've seen a real change over the last 5 years in the commitment and level of information in the ESG practice for our managers. You know, we score every manager, so we come out of those annual meetings and we assign a score. So our scoring is 1 to 5. 5 is an ESG outcome, so it's more like a client fund or an ESG specific fund. 4 is a fully integrated ESG practice. And so we've just started doing that, they are internal use only, we do not publish those because we've just started. We've got 6

months of data on scoring, and as we build those out, I would expect that in the future people will come to us and say: we're looking for a manager, we want them to have a 3 or a 4 on your scoring. It isn't happening today, it's not how we look at managers, we don't hire and fire today based on ESG, but I think it is coming. I think the other shift we've seen in people looking at ESG is that people no longer say to us: oh, I really wish I could invest in that but I know I'm going to give up return. Now we hear people saying: you know, I'd like to invest in a climate fund, they're not thinking about some opportunity cost that actually is not usually there but that mindset has definitely shifted and we see it in what we're being asked to look for by our clients. So we write up that ESG score, it's part of our written documentation. Any of our team can go and look at what we've done on ESG. You cannot, we can talk about it, but we do make sure that every manager is assessed formally on ESG on a go-forward basis. I would say the other piece that's important to our ESG practice is that piece about continuing education. It is a focus, it's not every month that we do something on ESG, but I would say 3 times a year ESG is part of our continuing education. We recognize how important that has become and we recognize that we need to stay on top of that and we do leverage our Manulife IM colleagues for that as well, but we also leverage externally. I think the other piece I wanted to talk about is just a little bit more about how we work with Manulife Private Wealth. I hope, you know, that you can see that we collaborate. We recognize that every business we work for within Manulife has a different set of needs, Manulife Private Wealth is actually the most unique. It's also the most fun, but don't tell anyone else we said that. It's a very different business unit with very specific needs, so we listen, we try to make sure we bring you good ideas that work for you. We recognize that you're looking for exclusivity a lot of the time. We think about how a manager might partner with Manulife Private Wealth, whereas other business units, it might be more of not quite a relationship to the same level as it would be for Manulife Private Wealth. We will recommend changes to the platform when we think they're appropriate. We do monitor the state of the platform. We're responsive to the needs of Leslie and Glen to tell us what's missing, what you'd like to add to the platform. It's not always as quick as we would like to add or subtract, but we do listen and we are trying to do the best we can for Manulife Private Wealth. And, I think, finally, I'd just say, you know, we are a part of global product so that does mean we fall in the same umbrella as many other business units, but what it also brings to us is it brings us a rigor, it brings us debate. Everything we do is grounded in debate, it goes through a very rigorous process. What it means is that not all clients have the same offerings, right, and I think that's really important to recognize. We aren't giving the same offering to every client, what we hope it means is that each client has the best options. And I think that's it for

Ш

Leslie Brophy, AVP, Head of Investments and Sales, Manulife Private Wealth

That's great, Jennifer, thank you. It's always a pleasure to hear from you and to work with you and your team. Just a quick note for those on the call, we do meet with Jennifer and her team quarterly at our investment committee to hear their updates and to listen to their analysis of the managers that we have on our platform. So, thank you Jennifer for joining us today. At Manulife Private Wealth, you and your clients will receive a disciplined and detailed process in discretionary money management backed by a tradition of excellence and established expertise. Combined with expert, unbiased and personalized solutions, clients of Manulife Private Wealth enjoy access to our rigorous investment manager selection and monitoring process. We hope today's comments were insightful for you as we head into the new season. To learn more about Manulife Private Wealth's investment platform, or how to access the specialized expertise of the team working with Manulife Private Wealth, please reach out to a member of the Manulife Private Wealth team. On behalf of all of us, thank you for joining and we look forward to hosting you next time around. Have a good afternoon.

Follow the Private Wealth Podcast on www.manulifeprivatewealth.com or contact us via manulife:manul

A widespread health crisis such as a global pandemic could cause substantial market volatility, exchange trading suspensions and closures, and affect fund performance. For example, the novel coronavirus disease (COVID-19) has resulted in significant disruptions to global business activity. The impact of a health crisis and other epidemics and pandemics that may arise in the future, could affect the global economy in ways that cannot necessarily be foreseen at the present time. A health crisis may exacerbate other pre-existing political, social and economic risks. Any such impact could adversely affect fund performance, resulting in losses to your investment.

Intended for Canadian Advisors and Accredited Investors. Information is as of the recording date, unless otherwise noted. This recording was prepared for general information purposes only and should not be relied on for specific financial, legal or other advice and is not intended as an offer, or a solicitation of an offer, by Manulife Private Wealth to any person to buy or sell any investment or other specific product and is no indication of trading intent.

Investing involves risks, including the potential loss of principal. Financial markets are volatile and can fluctuate significantly in response to company, industry, political, regulatory, market, or economic developments. Neither Manulife Private Wealth nor any other companies in the

Manulife Financial Corporation ("MFC") group are acting as an adviser or fiduciary to or for any recipient of this recording unless otherwise agreed in writing. Neither Manulife Private Wealth or its affiliates, nor any of their directors, officers or employees shall assume any liability or responsibility for any direct or indirect loss or damage or any other consequence of any person acting or not acting in reliance on the information contained herein. Nothing in this material constitutes investment, legal, accounting, tax or other advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. Manulife Private Wealth does not provide legal or tax advice, and you are encouraged to consult your own lawyer, accountant, or other advisors before making any financial decision. Prospective investors should take appropriate professional advice before making any investment decisions. All opinions expressed were obtained from sources believed to be reliable and in good faith, no representation or warranty, expressed or implied, is made as to its accuracy or completeness.

The information in this recording, including statements concerning financial market trends, future events, targets, management discipline or other expectations, are based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons. There is no assurance that such events will occur, and if they were to occur, the results may be significantly different than those shown here. This recording may contain forward-looking statements about the markets, model portfolios and expected future performance. Forward-looking statements are not guarantees of future performance. Forward-looking statements involve inherent risks and uncertainties, both about the individual portfolio components and general economic factors, so it is possible that expectations, forecasts, projections and other forward-looking statements will not be achieved. Manulife Private Wealth cautions you not to place undue reliance on these statements as a number of important factors could cause actual events or results to differ materially from those express or implied in any forward-looking statement made herein. These factors include, but are not limited to, general economic, political and market factors in Canada, the United States and internationally, interest and foreign exchange rates, global equity and capital markets, business competition, technological changes, changes in laws and regulations, and catastrophic events. Before making any investment decisions, Manulife Private Wealth encourages you to consider these and other factors carefully. Should you have any questions, please contact or ask to speak to a member of Manulife Private Wealth.

Manulife Private Wealth is a division of Manulife Investment Management Limited and Manulife Investment Management Distributors Inc. Investment services are offered by Manulife Investment Management Limited and/or Manulife Investment Management Distributors Inc. Banking services and products are offered by

Manulife Private Wealth

Manulife Bank of Canada. Wealth & Estate Services are offered by The Manufacturers Life Insurance Company. Manulife, Manulife & Stylized M Design, Stylized M Design, and Manulife Private Wealth are trademarks of The Manufacturers Life Insurance Company and are used by it, and by its affiliates under license. This information does not replace or supersede KYC (know your client) suitability, needs analysis or any other regulatory requirements.