Good morning, and welcome to the Manulife Financial Fourth Quarter 2022 Financial Results Call. Your host for today will be Mr. Hung Ko. Please go ahead, Mr. Ko.

Thank you. Welcome to Manulife's earnings conference call to discuss our fourth quarter and year end 2022 financial and operating results. Our earnings materials, including the webcast slides for today's call, are available on the Investor Relations section of our website at manulife.com.

Turning to Slide 4. We will begin today's presentation with an overview of our progress in 2022 and an outlook for 2023 by Roy Gori, our President and Chief Executive Officer. Following Roy's remarks, Phil Witherington, our Chief Financial Officer, will discuss the company's financial and operating results, and provide an update on IFRS 17. After the prepared remarks, we will move to the live Q&A portion of the call. We ask each participant to adhere to a limit of 2 questions, including follow-up questions. If you have additional questions, please re-queue and we will do our best to respond to everyone.

Before we start, please refer to Slide 2 for a caution on forward-looking statements and Slide 45, for a note on the non-GAAP and other financial measures used in this presentation. Note that certain material factors or assumptions are applied in making forward-looking statements and actual results may differ materially from what is stated. With that, I'd like to turn the call over to Roy Gori, our President and Chief Executive Officer. Roy.

Thanks Hung and thank you everyone for joining us today. Yesterday, we announced our fourth quarter and full year 2022 financial results. We have made significant progress against our strategic priorities and are pleased to have delivered strong results, which are a testament to the resilience and strength of our diverse global franchise. We are especially pleased with these results against the backdrop of a year that was challenging for businesses broadly, with multiple headwinds impacting our industry as well as ongoing market volatility.

On our financial results, we are proud of 2 records we achieved in 2022, a record net income of $7.3 billion and the highest ever remittances of $6.9 billion. Meanwhile, we have also driven robust new business value growth in both of our North American segments in
2022, with NBV growth in the U.S. and Canada of 25% and 18%, respectively. This strong performance demonstrates the power of our diversified franchise, given the impacts of COVID-19 restrictions in Asia.

We also took meaningful actions to significantly reduce the risk profile of our business. We reinsured more than 80% of our legacy U.S. variable annuity block through 2 transactions that released $2.5 billion of capital and further reduced our go-forward risk profile. Core earnings from the LTC and VA blocks represent only 18% of total company core earnings in 2022, a material reduction from 25% just 2 years ago, and we are on track to deliver on our 2025 business mix targets.

And our sensitivity to market movements has also greatly reduced since 2009. At the end of 2022, our sensitivity to interest rate movements was approximately 1/10 of that in 2009, and our sensitivity to equity markets has more than halved during the same period. We are also growing our scale and market share globally. In Asia, we are not only at scale, but we were also the fastest-growing life insurer among the top 3 pan-Asian players between 2017 and 2021.

Our Global WAM business recorded $3.3 billion of net inflows in 2022 against an industry backdrop of net outflows in North America. This performance extended our remarkable track record of delivering positive net flows in 12 of the past 13 years. In Canada, we grew our net income, core earnings and NBV at double-digit growth rates in 2022.

We continue to distribute significant cash returns to our shareholders. Between 2017 and 2022, we grew our common share dividend by 10% per year on average, and I'm pleased to share that our Board approved an increase of 11% starting in March of 2023.

In addition to sustained dividend increases, in 2022, we enhanced shareholder returns through $1.9 billion of share buybacks, which represents 4.1% of outstanding common shares. We are also strategically deploying capital to invest for the future. In 2022, we acquired full ownership of Manulife TEDA, making us the first foreign company to be given approval to acquire an existing asset management JV in China. And in Vietnam, we commenced offering insurance solutions under our 16-year exclusive partnership with VietinBank, one of the largest banks in Vietnam.

Turning to Slide 7. The achievements that I mentioned earlier were supported by our strong digital and ESG leadership as well as our winning team. We have made notable progress on our digital customer-centric initiatives, as evidenced by the 15 percentage point increase in our global Straight Through Processing metric compared with the 2018 baseline, with improvements across all segments. Our 2022 NPS marked a significant 19-point improvement from the 2017 baseline. We also led or were on par with the leading peers in 11 of the 16 business lines where we benchmark.

We have invested $1 billion since 2018, to enhance our digital capabilities to make decisions easier and lives better for our customers, while at the same time, driving significant efficiency improvement in our operations. As a leader in ESG, we are achieving strong results and serving our customers and other stakeholders in a socially responsible and sustainable way.

In 2022, we shared our Impact Agenda, an articulation of our long-standing commitment to empowering health and well-being, driving inclusive economic opportunities and accelerating a sustainable future. While we are already Net Zero in our Scope 1 and Scope 2 greenhouse gas emissions, we are committed to further reducing our absolute emissions by 35% by 2035 and to achieving Net Zero Scope 3 financed emissions in our General Account by 2050.

In recognition of our continued and strengthening commitment to sustainability performance, in 2022, we were once again named to the S&P Dow Jones Sustainability Index, 1 of only 7 insurers across North America to be included, and within the top 10% of our industry peers globally.

Our high-performing team and winning culture have been key to our success. We have achieved a top quartile employee engagement ranking annually since 2020. And in 2022, we ranked in the top 6% amongst global financial and insurance companies. In addition, we have been consistently recognized as an employer of choice including as one of the World's Best Employers by Forbes for the third consecutive year.
The Canadian insurance industry will adopt IFRS 17 in 2023. While this is a significant endeavor, we are fully prepared for a successful implementation and are looking forward to the improved transparency and stability in our financial results that the new accounting standards will bring.

Throughout 2022, we have been proactive in providing insights into the expected impacts of IFRS 17, both on transition and on our medium-term targets. Let me highlight a few points. First, IFRS 17 does not impact the fundamental economics of our business. Second, we expect our core earnings, book value and LICAT to be more stable under IFRS 17. Third, the contractual service margin, or CSM for short, is a key value metric under IFRS 17. A growing CSM balance will drive future earnings growth. And we have announced a target of growing our CSM balance by 8% to 10% per year.

Turning to Slide 8. Looking ahead, while we continue to navigate macroeconomic uncertainties in the short term, we see both challenges and opportunities in 2023 and beyond. Some of the notable headwinds and tailwinds are: First, we may see volatility in equity markets and interest rates continuing in 2023 but higher rates are clearly beneficial to our insurance businesses as we have seen in our 2022 results; second, while we may see short-term disruption related to the transition from COVID Zero policies in Asia, we expect business momentum to strengthen as pandemic restrictions normalize; third, while in North America, we may see GDP growth slowing down, many Asian countries are forecast to deliver economic growth of 5% or higher in 2023, which is a benefit to our business, given our presence at scale in the most attractive growth markets across the region.

Notwithstanding the pandemic and recent macro headwinds, the 3 megatrends that underpin our strategy remain unchanged. Our business is uniquely positioned to continue to capitalize on these megatrends. As a top 3 pan-Asian insurer, we see significant growth opportunities emerging in Asia, including in Hong Kong, where we are a leading insurer and well positioned to benefit from the significant MCV and GBA opportunities, following the reopening of the border between mainland China and Hong Kong.

Our Global WAM business is not only a leading global retirement solutions provider with approximately 9 million customers but we are also a top 10 global retail multi-manager. In our home market of Canada, we serve 1 in 4 Canadians, and we are a leader across many of our business lines. And globally, we are a leader in our unique behavioral insurance offering. We are confident that our all-weather strategy, diverse business model and considerable financial strength and flexibility, position us well to win and deliver in 2023 and on our 2025 strategic targets.

Thank you. And I will hand it over to Phil Witherington, who will review the highlights of our financial results. Phil.

Phil Witherington
Manulife Financial Corporation - Chief Financial Officer

Thanks, Roy. Before we start, I would like to recognize that the fourth quarter of 2022 is our last reporting period under IFRS 4. Starting with the first quarter of 2023, we will be reporting under IFRS 17 and IFRS 9. In the latter part of my presentation, I will provide an update on our IFRS 17 transition impacts. I’ll start on Slide 10. We generated core earnings of $1.7 billion, a modest 2% decrease from the prior year quarter. The results reflect a number of factors, including lower core earnings in Global WAM, lower new business gains in Asia and the U.S. and lower in-force earnings in the U.S. due to the VA reinsurance transactions.

These were largely offset by higher yields on surplus fixed income investments, gains on seed money investments and lower withholding taxes in Corporate and Other, improved policyholder experience in North America and in-force business growth in Asia and Canada. Net income attributed to shareholders of $1.9 billion, decreased by $193 million from the prior year quarter, mainly due to losses from investment-related experience and a smaller gain from the direct impact of markets, partially offset by the favorable impact of an increase in the Canadian corporate tax rate.

Of note, investment-related experience in the fourth quarter reflected losses in our ALDA portfolio driven by real estate fair value appraisals, partially offset by the favorable impact of fixed income reinvestment activities and favorable credit experience. I will speak more about our ALDA performance in a moment. We recognized a net loss of $357 million from investment-related experience. A $100 million gain was included in core earnings and a loss of $457 million was reported outside of core earnings.

On a full year basis, overall investment-related experience was a gain of $1.2 billion, of which $400 million was reported in core earnings.
Our net income in the fourth quarter also included a $297 million gain from the impact of the Canadian corporate tax rate change, an $86 million fair value gain as a result of acquiring the remaining 51% equity interest in our Asset Management business in mainland China, and a $35 million gain from the reinsurance of our legacy New York VA block.

Slide 11 shows a recent history of our investment-related experience, including a total gain of $1.2 billion in 2022 that I noted earlier. In addition to the continued strong credit experience and gains from fixed income reinvestment activities in 2022, our ALDA portfolio also achieved higher-than-expected returns, contributing $147 million to investment-related experience gains.

The strong performance of our ALDA portfolio is shown on Slide 12. The average annual return of our diversified portfolio since the acquisition of John Hancock 18 years ago was 9.3%, outperforming our current best estimate long-term return assumption of 9.2%.

Slide 13 shows our source of earnings analysis for the fourth quarter of 2022 compared with the prior year quarter. Expected profit on in-force decreased by 1%, driven by lower U.S. Annuities in-force earnings due to the 2 reinsurance transactions completed in 2022, partially offset by in-force business growth in Asia and Canada. Excluding the impact of the VA reinsurance transactions, our in-force earnings would have grown by 5%.

New business gains decreased by 21%, primarily driven by lower gains in Asia and the U.S. In Asia, the weaker customer sentiment in Hong Kong, seen in the third quarter continued into the fourth quarter, leading to lower sales volumes. This was partially offset by higher sales and improved margins in Japan. Lower new business gains in the U.S. were primarily due to lower brokerage sales. Policyholder experience was a net charge of $82 million on a pre-tax basis, an improvement of $38 million compared with the prior year quarter, mainly driven by improved policyholder experience in Canada.

Slides 14 and 15 show our earnings by segment and return on equity in the fourth quarter and full year 2022. My remarks will focus on the fourth quarter results. Core earnings in our Global WAM business decreased by 34%, primarily driven by a decrease in net fee income from lower average AUMA due to the unfavorable impact of markets. Core earnings in Asia increased by 1%, driven by favorable changes in new business product mix and in-force business growth, partially offset by the impact of lower new business volumes, primarily in Hong Kong due to the factors I noted earlier.

We continued to deliver double-digit core earnings growth in Canada, with a 22% increase, reflecting more favorable experience gains in all business lines, higher Manulife Bank earnings and higher in-force earnings. Core earnings in the U.S. decreased by 25%, largely driven by reduced in-force earnings, due to the VA reinsurance transactions and lower new business gains.

The core gain in Corporate and Other of $86 million was $165 million favorable compared with the prior year quarter, mainly due to higher yields on fixed income investments, gains on seed money investments and lower withholding taxes, partially offset by higher interest on allocated capital to operating segments. And we delivered core ROE of 13.2%, an improvement of half a percentage point compared with the fourth quarter of last year.

Turning to Slide 16, which shows our APE sales and new business value generation. In the fourth quarter, we generated APE sales of $1.3 billion, down 12% from the prior year quarter. In Asia, APE sales decreased by 9%, reflecting continued weak customer sentiment in Hong Kong. This was partially offset by higher sales in Japan and Asia Other and notably mainland China.

In Canada, APE sales decreased 15%, reflecting lower segregated fund and par insurance sales, partially offset by higher group insurance sales. APE sales in the U.S. decreased 21%, reflecting lower customer demand, amid volatile equity markets. And on a full year basis, APE sales decreased 7% compared with the prior year.

In the fourth quarter, we delivered new business value of $525 million, a decrease of 9% from the prior year quarter. In Asia, NBV decreased 17%, reflecting lower sales in Hong Kong and unfavorable changes in product mix in Asia Other, partially offset by the benefit of higher interest rates and higher individual protection and other wealth sales in Japan.

NBV increased 6% in Canada, primarily due to higher margins in our insurance businesses, partially offset by lower volumes in annuities.
In the U.S., NBV increased 12%, driven by higher interest rates, higher international sales volumes and product actions, partially offset by lower brokerage sales volumes. For the full year, we delivered new business value of $2.1 billion.

Turning to Slide 17. Our Global WAM business recorded net outflows in the fourth quarter after 8 consecutive quarters of positive net inflows. The net outflow of $8.3 billion reflects weak investor sentiment amid record industry fund outflows in North America amid market volatility. On a full year basis, we delivered net inflows of $3.3 billion.

In Retail, net outflows were $4.7 billion compared with net inflows of $7.5 billion in the prior year quarter. The decrease reflects higher mutual fund redemptions and lower investor demand amid higher interest rates and equity market declines. In Retirement, net outflows were $4.6 billion compared with net outflows of $1 billion in the prior year quarter, primarily driven by higher plan redemptions in the U.S.

Our Institutional Asset Management business recorded net inflows of $0.9 billion compared with net inflows of $1.6 billion in the prior year quarter, driven by lower net flows in real estate, timberland and infrastructure products, partially offset by higher sales of fixed income mandates. Overall, 2022 Global WAM's average AUMA decreased by 12% compared with the prior year quarter, driven by unfavorable market movements in the earlier part of 2022.

Turning to Slide 18. Net fee income yield of 43.7 basis points was modestly lower than the prior year quarter, driven by lower fee spread. Our core EBITDA margin of 27.3% was 4 percentage points lower than the prior year quarter, reflecting lower fee revenue from lower average AUMA. For the full year, our core EBITDA margin was resilient at 30.4%, enabled by our substantial scale and disciplined approach to managing operating expenses.

Moving to Slide 19. We have achieved a remarkable track record of generating positive net flows in 12 of the past 13 years, a demonstration of our strong and diverse Global WAM franchise across retail, retirement and institutional business lines and across geographies.

Turning to Slide 20. Our strategic focus on digitization and efficiency and disciplined approach to managing operating expenses enabled us to contain core general expense growth to 5% in the fourth quarter and remain in line with 2021 on a full year basis. We achieved an expense efficiency ratio of 50.9% for both the fourth quarter and the full year 2022, despite the inflationary environment. We are committed to the target efficiency ratio of below 50% and see it as an important strategic priority to deliver sustainable shareholder value.

Slide 21 reinforces our strong balance sheet and capital position. Our LICAT ratio of 131% remains strong and represents approximately $20 billion of capital above the supervisory target. The 5 percentage points decrease compared to the third quarter was driven by a capital redemption, continued common share buybacks and the unfavorable impact of market movements on capital, primarily due to the narrowing of corporate spreads.

Our financial leverage ratio declined by 1.1 percentage points from the prior quarter, reflecting the redemption of $1 billion of subordinated debt, share buybacks and retained earnings growth. We delivered record remittances of $6.9 billion in 2022, an increase of $2.5 billion compared with 2021, supported by 2 VA reinsurance transactions completed in 2022.

Turning to Slide 22. We are committed to creating value to shareholders, including through the use of regular dividends and share buybacks. As Roy mentioned earlier, we have increased our dividend per common share by 10% on an annualized basis since 2017. And we announced yesterday a 3.5 cents or a 11% increase to the quarterly dividend per common share.

In addition, we repurchased 4.1% of the company's outstanding common shares for $1.9 billion in 2022, demonstrating our strong conviction to execute on buybacks. For the 5-year period from 2018 to 2022, we returned a total of $14.7 billion of cash to our shareholders, which represents approximately 33% of our market capitalization at the end of 2022.

Slide 23 shows the summary of our financial performance for the fourth quarter and the full year 2022, and Slide 24 outlines our
medium-term financial targets and recent performance. Our performance reflects the resilience of our business against a backdrop of a challenging macro and operating environment in 2022.

Turning to Slide 25, which provides additional information on our IFRS 17 opening balance sheet as of January 1, 2022. Our opening total equity under IFRS 17 was $46.9 billion, 20% lower than reported under IFRS 4 and in line with our previous guidance. The main driver of the decrease is the establishment of the CSM, partially offset by other measurement changes, including 2 provisions held for non-economic risks and changes to discount rates.

As a quick recap, one of the key impacts of IFRS 17 is the requirement to set up a new insurance liability component, the CSM, which represents expected future profits and is treated as available capital under LICAT. For these reasons, we believe the CSM is an important metric for measuring future earnings capacity and value of the business. As noted previously, we expect the new business CSM balance to grow at 15% per annum and the CSM amortization into core earnings to be approximately 8% to 10% per annum.

The difference in discount rates used for IFRS 17 compared with IFRS 4 has a modestly negative impact. Under IFRS 17, liability discount rates reflect the characteristics of the liability and not the expected returns of assets supporting the liabilities. As such, the weighted average liability discount rate has decreased overall, but the impact varies between segments and business lines.

Turning to Slide 26. Based on the preliminary results from our IFRS 17 parallel runs for 2022, which is still underway and is not yet complete, I would like to provide an update on our estimated transition impacts. Under IFRS 17, core earnings for the 2022 comparative year are expected to be lower than IFRS 4 2022 core earnings by 5% to 10% compared with the previous estimate of approximately 10%.

As I noted earlier, opening balance sheet total equity declined 20% on January 1, 2022, in line with the guidance that we provided. With respect to January 1, 2023, we expect total equity to be approximately 15% lower on an IFRS 17 basis compared with IFRS 4, and book value per common share to be approximately 20% lower on an IFRS 17 basis compared with IFRS 4.

Along with our second quarter results and with reference to the final 2023 LICAT guideline that was released by OSFI in July 2022, we announced that the estimated impact of IFRS 17 on our LICAT ratio was approximately neutral based on June 30th market conditions. We also said that we expected the IFRS 17 LICAT ratio to be more stable than under IFRS 4 and in particular, less sensitive to changes in interest rates.

Changes in market conditions, specifically rate movements in the second half of 2022, have reduced our LICAT ratio under IFRS 4. Given the greater stability of our LICAT ratio under IFRS 17, we expect a low single-digit increase in our LICAT ratio as of January 1, 2023. There is no change to our medium-term financial targets, including the new CSM-related targets that were communicated last year.

This concludes our prepared remarks. Before we move to the Q&A session, I would like to remind each participant to adhere to a limit of 2 questions, including follow-ups. Operator, we will now open the call to questions.

**QUESTIONS AND ANSWERS**

Operator

(Operator Instructions) And the first question is from Meny Grauman from Scotiabank. Please go ahead.

Meny Grauman
Scotiabank Global Banking and Markets, Research Division - MD of Financial Services Equity Research & Analyst

Good morning. Just wanted to ask about investment-related returns. Phil, you referenced fair value changes on real estate. Just wanted to get some more details on that in terms of the asset class, geographies? Is it something concentrated? So I will start there, please.

Scott Hartz
Manulife Financial Corporation - Chief Investment Officer

Sure, Meny. This is Scott Hartz. Thanks for the question. So yes, when we look at investment-related returns, as Phil pointed out, it's been a very strong year with $1.2 billion of investment gains, $800 million above what we would have put into core earnings. And for the ALDA portfolio in particular, we had gains of $147 million for the year, meaning we slightly exceeded our long-term return expectations. But
those returns will vary quarter-to-quarter, particularly the ALDA returns, given the mark-to-market flows through earnings.

And in the fourth quarter, we did see lower investment returns. That was largely driven by our real estate portfolio. Most of our other 5, all the categories performed in line with our long-term expectations. So the loss you see, the $357 million for total investment gains, was driven by the real estate portfolio. Now it's important to note that our real estate portfolio is almost entirely mark-to-market by external appraisers each quarter, over 95% of the portfolio. So only a few small properties that are not.

And what we saw in the fourth quarter is that external appraisers raised their discount rates on real estate, and that was really across the board. So it really hit all categories, not just office, which office has been weaker over the last couple of years. But in the fourth quarter we saw that weakness extend across all categories, particularly in North America. Asia held up a little bit better. It's important to note that these were mark-to-market losses based on higher discount rates. And given the higher discount rates, we would expect to recover those losses in the future through higher returns. So that was really the driver, Meny.

Meny Grauman
Scotiabank Global Banking and Markets, Research Division - MD of Financial Services Equity Research & Analyst
Okay. Yes. I guess it answers the question. I mean everyone is worried about office values in particular. So the question is, are we seeing the start of that downward revaluation of office properties? But as you're saying, it's more broad-based than that in terms of what we are seeing this quarter?

Scott Hartz
Manulife Financial Corporation - Chief Investment Officer
Yes, that's correct. I think we have seen weakness in office for a couple of years now. And we have got a highly diversified ALDA portfolio, other things we are doing well. So that didn't really show much. But in the fourth quarter, it really did extend to all categories of real estate.

Meny Grauman
Scotiabank Global Banking and Markets, Research Division - MD of Financial Services Equity Research & Analyst
Thank you.

Operator
Thank you. The next question is from Gabriel Dechaine from National Bank Financial. Please go ahead.

Gabriel Dechaine
National Bank Financial, Inc., Research Division - Analyst
Good morning. I've got a couple questions. One is on the reopening in Asia, specifically Hong Kong. I know these things don't turn on a dime. I'm just wondering what sort of lag you expect from now until your sales hit what you consider their normal run rate or something above where they are today?

Damien Green
Manulife Financial Corporation - President & CEO, Manulife Asia
Thanks Gabriel. It's Damien here. I appreciate the question. We are seeing -- so firstly, we saw an uptick in MCV, mainland Chinese visitor sales in the fourth quarter of 2022, which is very positive. We registered strong double-digit growth in mainland Chinese visitor sales for quarter-on-quarter and year-on-year in Macau, which was a very positive sign.

As we go into the first quarter, we are seeing a step change in mainland Chinese visitor sales into Hong Kong, albeit off a low base, Gabriel, but very positive signs. So whilst clearly, the recovery is happening here. Clearly, the inflows are there. The pace of that recovery over coming months is clearly got to be determined. But positive sign so far.

And the last thing I'd say here is we are very well positioned to capitalize on the mainland Chinese visitor opportunity as it returns to Hong Kong. We have got 12,000 agents. We have been focusing very, very hard over the course of the pandemic in beefing up our mainland Chinese visitor sales capabilities as well as partnership channels, including DBS Bank. Thank you.

Gabriel Dechaine
National Bank Financial, Inc., Research Division - Analyst
So it's more like back half where you expect it to ramp up?
Damien Green  
Manulife Financial Corporation - President & CEO, Manulife Asia  

Definitely. What I would say is we are expecting a significant recovery over the course of 2023, with a ramp-up in Q1, but that's the way I see it. Thanks.

Gabriel Dechaine  
National Bank Financial, Inc., Research Division - Analyst  

Okay. And then my second question on the policyholder experience. I don't know if you can break that number down for us. We just got the one number, which in and of itself is fine. But how much of it was mortality gains in LTC, how much of it was, I'm assuming group in Canada, was positive? And then on the other side, how much of it was negative lapse and mortality in the U.S.? And if that lapse issue was -- experience was tied to the no-lapse guarantee business?

Steve Finch  
Manulife Financial Corporation - Chief Actuary  

Thanks, Gabriel. It's Steve here. I will tackle that. And I guess, I will speak broadly about what we saw and then try to answer your questions on some of the specifics. So Q4 policyholder experience in total, as Phil noted, was just over $80 million pre-tax, an improvement from Q3 and from Q4 prior year. I would categorize it as the broad driver of the result was unfavorable lapse experience in our U.S. Life business.

In terms of mortality and morbidity, so claims results, that varied across businesses and geographies, but it was neutral overall for the quarter. And that was driven by a couple of the things that you noted. We had favorable experience in Group Benefits in Canada, which has been a trend for the full year, very positive results there in the Canadian Group Benefits. We saw a gain in LTC. We saw in Q4 what I would consider normal large-case variability that was a charge in the U.S. So that's sort of the claims side of things.

In terms of lapse, a little bit of context. So what we are seeing in terms of the lapse results, we had updated our experience in the U.S., updated the assumptions in 2021 fully reflecting pre-pandemic experience. And what we are seeing now is really a shock to the system caused by health concerns from the pandemic as well as more recently, the variability in markets and the uncertain economic outlook. That's impacting more than just the guaranteed UL product line. So it's across a number of product lines.

But my expectation is that these impacts are expected to moderate going forward and revert back to pre-pandemic levels as the pandemic subsides and the economic uncertainty abates. And what really matters is our long-term assumptions. And I continue to have confidence in our -- in the prudence of our long-term assumptions and reserves. And some of what is informing that, that view and that expectation is looking back to another shock to the system, which we saw in the global financial crisis.

And I lived through that in the U.S. Life business. And we saw a similar phenomenon, discontinuities across multiple product lines, and that experience did -- it took some time, but it did revert back to pre-pandemic levels, and that's informing my views. On the NLG, those lapse rates bottomed out in the middle of 2021, and we have seen some trend or reversion back, but not fully at this point. So I will stop there. Thanks.

Gabriel Dechaine  
National Bank Financial, Inc., Research Division - Analyst  

Alright. Thanks for the call.

Operator  

Thank you. The next question is from Doug Young from Desjardins Capital Markets. Please go ahead.

Doug Young  
Desjardins Securities Inc., Research Division - Diversified Financials and Insurance Analyst  

Good morning. Phil, I wanted to go back to Slide 26 and just a few things I wanted to clarify here. You say the equity hit from transitioning to IFRS 17 was 15%, but the book value hit is 20%. Just trying to understand the difference between the moves, 15% to 20% between those 2? Why the difference in equity and the book value hit? And then can you also kind of delve into a little bit on why the impact on core earnings 2022 comp went down from roughly 10% to 5% to 10%? If you can give maybe a little bit of detail as to what drove that.
Phil Witherington  
**Manulife Financial Corporation - Chief Financial Officer**

Sure. Thank you, Doug, for the question. I'm happy to elaborate there. So I will start with the first component of your question on the balance sheet impact. The guidance we provided, it was -- along with our Q1 results in 2022 was a 20% impact to an estimated 20% impact to total equity. That's actually what has happened. We published our opening balance sheet, along with our results yesterday, the impact is 20%. But the additional guidance we provided yesterday was over the course of 2022, what we have seen is a more stable IFRS 17 book value relative to IFRS 4. And therefore, by the end of 2022, we expect the total equity impact to be lower and approximately 15%.

Your question on why the book value -- common shareholder book value per share is approximately 20% impact by the end of 2022. That's really the -- what I would describe as the denominator impact. When you strip out the preference shares LRCN as well as policy -- participating policyholder impacts, the impact is approximately 20% by the end of 2022.

The -- your second question relating to the expected impact on 2022 core earnings. When we provided the guidance earlier last year, we were expecting 2022 to be a more normal year, a typical year, I think, is the language we used at the time. What's actually transpired in 2022, it's a very challenging backdrop. And for that reason, new business gains on an IFRS 4 basis were lower than we had anticipated. In fact, approximately 20% lower year-on-year. And that's really the key driver of the reduced impact that we are now expecting somewhere between 5% and 10%.

Doug Young  
**Desjardins Securities Inc., Research Division - Diversified Financials and Insurance Analyst**

Okay. So just to clarify, the total equity includes par, includes prefs, all of those things, that's different than the book value per share. Is that -- or is that include shareholder equity?

Phil Witherington  
**Manulife Financial Corporation - Chief Financial Officer**

Spot on.

Doug Young  
**Desjardins Securities Inc., Research Division - Diversified Financials and Insurance Analyst**

Okay. Thank you very much.

Phil Witherington  
**Manulife Financial Corporation - Chief Financial Officer**

Thanks Doug.

Operator

Thank you. The next question is from Paul Holden from CIBC. Please go ahead.

Paul Holden  
**CIBC Capital Markets, Research Division - Executive Director of Institutional Equity Research**

Thank you. Good morning. So sticking with the IFRS 17 theme. One of your peers highlighted that there's more of an interest rate benefit under IFRS 17 versus IFRS 4, i.e., it flows through into core results faster under IFRS 17. Wondering if that's also true in your case, you suggest that there's less rate sensitivity. So maybe you can just address that and help us out.

Phil Witherington  
**Manulife Financial Corporation - Chief Financial Officer**

Sure. Thanks, Paul. This is Phil. The main benefit that we see from interest rates on an IFRS 17 basis is actually the closer matching of the economics of the assets and liabilities. So what we have observed during the 2022 ongoing parallel runs is that the greater stability in our book value as a result of the largely offsetting movements in assets and liabilities as a result of movements in interest rates.

And that really reflects the fact that when we manage our asset portfolio, we hedge our liability movements on an economic basis and IFRS 17 is a closer representation of the economics. So when you translate all that to the -- what we see in an IFRS 17 environment, we see greater stability in book value and when you compare that greater stability on an IFRS 17 basis to IFRS 4, during the course of 2022, we have seen rising interest rates that has had a lowering impact or an adverse impact on IFRS 4 equity, but very stable IFRS 17 equity, including a more stable LICAT ratio, which I think is a very positive factor for the future.
Steve Finch Manulife Financial Corporation - Chief Actuary

And Phil, I will just jump in there in terms of interest -- the impact of interest rates flowing into earnings, some of -- the same benefits that we have seen under IFRS 4 in 2022 from higher rates, particularly earnings on surplus, that will flow through as well under IFRS 17.

Paul Holden CIBC Capital Markets, Research Division - Executive Director of Institutional Equity Research

Okay. That's helpful. And that kind of leads me into the second question, which is the earnings on surplus was obviously very positive this quarter. I mean a significant outlier versus recent quarters and even going back over history. So just wondering if you can help us break down to what extent that's attributable to higher bond yields? And how much might be sort of, to abnormal gains on seed capital and other factors?

Phil Witherington Manulife Financial Corporation - Chief Financial Officer

Got it. Thanks, Paul. Great question. And earlier this year, for the first 3 quarters, I think some of the benefits of higher interest rates have been less visible because of declines in seed capital and the absence of AFS equity gains being recognized in core earnings because of market conditions. But when we look at Q4, a more normal market environment, we do see the benefits of higher interest rates showing through in earnings on surplus.

And to give you a sense of the magnitude there, when you look at our after-tax earnings on surplus in the fourth quarter, $295 million, $260 million of that is coming from yield on fixed income instruments. That's an $80 million increase after tax compared to the fourth quarter of last year. And what that reflects is the sustainable impact of higher interest rates that currently prevail. So if rates stay where they are, we would expect not only that to remain stable, but also to increase over time as we continue to invest in higher-yielding instruments.

Now the -- to your point on to what extent is the seed capital gains and gains from AFS equities included within that? That's -- the dollar amount in the fourth quarter in aggregate for AFS equity gains and seed capital is just over $100 million. Typically, I would expect somewhere between $80 million and $100 million a quarter. So this is -- I'd say just above the typical range that we would expect maybe in the order of $10 million or so.

But I would emphasize this is a normalization, I think, in the fourth quarter of what we would typically expect to see on an IFRS 4 basis. And the first 3 quarters of the year were not what I would typically expect to have experienced.

Roy Gori Manulife Financial Corporation - President & Chief Executive Officer

Well, I might just add a couple of other points, if I may. And I think Phil covered the question quite well, but if you think about higher rates, we have been in an environment of lower rates for more than a decade, which has been a headwind for our industry and, quite frankly, for us. And per our disclosures, we have shared that a 50 basis point increase in rates equates to a $1.6 billion PV of future earnings.

So higher rates is certainly something which is a positive and a tailwind for us. In ’22, we saw rates up approximately about 150 points. And the run rate benefit to earnings of those higher rates are approximately $170 million per year. That's pre-tax. And that doesn't include other benefits such as margin improvements in our Group Benefits business or new business value improvements as well.

And on top of that, obviously, if rates stay higher at the tail end, then there are possibly URR benefits as well. So I would just sort of add that whilst ’22 was an environment with a lot of volatility, we have seen higher rates. We do expect that as central banks around the world continue to raise rates despite inflation that we are going to be in an environment of higher rates and we see that as a positive clearly.

Paul Holden CIBC Capital Markets, Research Division - Executive Director of Institutional Equity Research

All those numbers are helpful. Thank you for that.

Phil Witherington Manulife Financial Corporation - Chief Financial Officer

Thanks Paul.
Operator
Thank you. The next question is from Tom MacKinnon from BMO Capital. Please go ahead.

Tom MacKinnon BMO Capital Markets Equity Research - MD & Analyst
Yeah, thanks very much. Just continuing on this seed capital AFS gains guide that you gave, Phil. It was over 100 in the quarter and you expect kind of a run rate of 80 to a 100. Seed capital gains in AFS equity gains are largely driven by increases in the equity markets. The fourth quarter, the equity market was up 7% from September 30th to December 31st. So I think you generally assume the market would be up about 2% each quarter. So why would the number not be like, 2/7 of that over $100 million? Why wouldn't the guide be like significantly less than the $100 million going forward? And then I have a follow-up. Thanks.

Phil Witherington Manulife Financial Corporation - Chief Financial Officer
Thanks, Tom. So in a typical quarter, normal environment, we'd expect somewhere between $50 million and $100 million of aggregate seed capital and AFS equity gains. There's clearly some discretion as to the timing of AFS equity gains. So it's not entirely dependent upon what happens in any particular quarter. What happened in the fourth quarter, the aggregate gain was $110 million post-tax. So I would say that's in the order of $10 million above the sort of typical range that you could expect in any particular quarter, Tom.

Scott Hartz Manulife Financial Corporation - Chief Investment Officer
Phil, it's Scott. I might add to that. I think you're right. So that math doesn't work because of the AFS timing as well as in the seed capital, there are a bunch of bond funds and rates were up in the fourth quarter. So that did not create the gains you might have otherwise expect.

Tom MacKinnon BMO Capital Markets Equity Research - MD & Analyst
Okay. So the wild card seems to be the timing of the AFS gains. But -- okay, thanks for that. Question with respect to the Global Wealth and Asset Management business. Even if I just look quarter-over-quarter, the assets were higher, but the core earnings were significantly less and the margins were significantly less. Now is there anything particular to the fourth quarter, like in terms of higher OpEx, any other kind of expenses that would deem to be one timers?

How should we be looking at core earnings and margin potential for this business going forward? Because I think the fourth quarter GWAM disappointed in terms of margins and in terms of flows. But if you can give us any kind of guide as to how we should be thinking about this business going forward? And how -- anything that was unique to the fourth quarter that drove that margin down? Thanks.

Paul Lorentz Manulife Financial Corporation - President & CEO, Manulife Investment Management
Yes. Thanks, Tom. It's Paul here. So you're right. We did have some one-time items in Q4 as well as Q3. And so quarter-over-quarter, I will kind of just go through that with you and then give you kind of a perspective of how to maybe look at it. In Q3, there were 2 items that were favorable to the core earnings. One was a tax benefit. We tend to see every Q3, particularly in our U.S. Retirement business. And then we also had an adjustment to our compensation expense in Q3 that was lower, so a negative adjustment.

The combination of those 2 in Q3 was about $37 million of core earnings. If I look at Q4, there was also some one-time items in Q4, but they were going the other way. We tend to see seasonal -- higher seasonal expenses in our Retirement business as we gear up for the next year. And again, that typically happens every Q4. But we also had incurred a restructuring charge in the quarter as we made some changes within GWAM to drive efficiencies go forward. The combination of those 2 was about $34 million.

So if you look at the quarter-over-quarter, that's about $71 million of the $86 million change. The rest is really the average AUMA movement and the fee income on that. So the way I would look at it is, is really look at full year 2022 versus 2021. That will automatically adjust for the seasonality of the tax benefit in Q3 and the seasonality of expenses in Q4. And just smooth out any one-time that may happen from quarter-to-quarter.

If you look at that, I would really look to the overall AUMA as the driver, the core EBITDA margin. And then the stability of our net interest fee yield on the assets as well as our expense management over time. So if you look at the EBITDA margin, an example '22, there was a
little bit of compression from 2021. And that's really the average AUMA movement and fee income. And while we were able to manage expenses and keep them flat, including that restructuring charge, we can't completely offset the total decline in down markets, but the opposite is true in up markets.

And you would have seen that historically over the last 3 years as we have driven margin expansion as markets improve and we manage our expenses. So that's how I would think about the business. And I wouldn't look to Q4 as really an indication of any change in terms of the underlying earnings power of the franchise.

Tom MacKinnon  
BMO Capital Markets Equity Research - MD & Analyst

So we had 30% in 2022 or 29.9% and that was a down market, if you will. And then 2021, up market, we had 31.5% in terms of core EBITDA margin. Should we be thinking that, going forward, it would be somewhere between those 2 if we got more stable markets?

Paul Lorentz  
Manulife Financial Corporation - President & CEO, Manulife Investment Management

Yes. It's really dependent on the markets and average AUMA. What I can say what I reiterated before is we try and manage our expenses to about 50% of revenue growth over the long term to help drive that expansion. So I would just look at what's typically happened. And again, you would have saw about 110-basis-point last year decline based on that market. And again, we would see the opposite. If we saw markets improve as we would expect some leverage on our fixed expense base.

Tom MacKinnon  
BMO Capital Markets Equity Research - MD & Analyst

Okay, thanks.

Operator

Thank you. The next question is from Scott Chan from Canaccord Genuity. Please go ahead.

Scott Chan  
Canaccord Genuity Corp., Research Division - Director of Research of Financials & Financial Services Analyst

Good morning. Maybe going back to Asia, Damien. I see that core expenses were up in Q4, and I assume that's because of the ramp-up and you called out agents. And I noticed your agents were increased a lot, and I see that with peers. But as you head into 2023, like from the ground level, can you give us a sense of competition that you see is kind of more or less or if there's any certain Asia regions that you could refer to that might have that dynamic?

Damien Green  
Manulife Financial Corporation - President & CEO, Manulife Asia

Yes. Thanks, Scott, for the question. Firstly, on the question of expenses, let me cover that briefly. We remain tightly focused on expense discipline and continue to track within our capital expense efficiency ratio target of 50% and did so for the full year of 2022 and for the fourth quarter. You will see some seasonality there, which we did see in the fourth quarter associated with us driving some business growth there. But generally, we are hanging on fairly well there.

In terms of competition across markets, the first thing I'd say is, I mean, just a macro view on our competitive performance through the pandemic. We have demonstrated considerable resilience through the pandemic in comparison to peers, growing our core earnings at a CAGR of 4% between 2019 being the immediate pre-pandemic year and to the end of last year's reporting period 2022, pretty positive. We remain the top 3 pan-Asian insurer, and we are a scaled player there operating in 11 markets.

So typically, in terms of competitive dynamics, I'd have to say broadly, every market in Asia, whether it's an emerging market or a more mature market like Hong Kong or Japan, has considerable competition and quite intense competition. But our scaled franchise, particularly in cornerstone markets like Hong Kong, where we are a leader; Singapore, where we are #2 in the market; Vietnam, where we have the leading franchise by far, gives us scale advantages and comparative scale advantages. So I think we are very well equipped to continue to compete for the share of growth and value. Thanks.

Scott Chan  
Canaccord Genuity Corp., Research Division - Director of Research of Financials & Financial Services Analyst

And maybe one follow-up for Roy. Just on capital deployment. You kind of talked about 100% ownership MTEDA. But I saw that you did a minority stake in a private equity firm in Asia. So it seems like the theme of deployment in Asia, as you talked about in the past, is
important. I'm just curious within your maybe current JV ownerships or outside of that looking at other asset management and bancassurance. And maybe if you can kind of maybe talk about the pipeline now that Asia is reopening there?

Roy Gori Manulife Financial Corporation - President & Chief Executive Officer

Yes. Thanks for the question, Scott. A couple of thoughts I'd leave you with. Firstly, we are in a strong capital position with a LICAT ratio of 131. We have $20 billion in excess of the supervisory minimum. So that really gives us certainly a lot of confidence, especially as we have navigated 3 challenging years through the pandemic and still an uncertain economic environment as we look to '23 and beyond. But despite that, I think that capital strength has put us in a position to create value through the deployment of capital.

In '22, we basically bought back 4.1% of our outstanding shares or deployed $1.9 billion to share buybacks, which, again, we felt was a very prudent way to create value for shareholders. And our dividend increase, the CAGR of 10% from 2017 to '22, again, was a source of value, and we are proud to announce that the Board approved an 11% increase effective March of '23.

So dividend buybacks -- sorry, dividend increases and share buybacks have been really a large part of our focus from a capital deployment perspective. We think that, opportunistically, there may be M&A opportunities for us to consider. Although one of our unique opportunities is that we can grow and deliver against our targets without M&A, which I think has really meant that we can be more judicious and less reckless, quite honestly, with a deployment of capital to M&A.

But despite that, we have deployed to various initiatives, including the MTEDA JV acquisition that you referenced, which is something we are really excited about. In fact, we were the first foreign company to receive approval to acquire full ownership of a JV asset management company. We have been with our JV partner for 10 years. It's performed incredibly well, and that opportunity in China is a phenomenal one. It's a $3.8 trillion market, basically an opportunity with incredibly low penetration rates.

And it's a market that's grown at a CAGR of 20% over the last 10 years. So that obviously is very exciting for us. We did the JV with Mahindra in India. Again, we think that's a tremendous opportunity, given the growth and scale of the India market. We started our bank partnership with VietinBank in Q1 of '22, which, again, gives us access to 14 million customers. So we are feeling pretty good about the capital that we have deployed.

We do believe that there may be more opportunities that may emerge, and our strong capital position will actually equip us with the opportunity to possibly opportunistically look at those. And we recently filed for a new NCIB for 2023 with the TSX. So again, capital strength, I think, is something that's been fortuitous for our company, and it's allowed us to create shareholder value. And quite frankly, we will continue to allow us to create shareholder value in '23.

Scott Chan Canaccord Genuity Corp., Research Division - Director of Research of Financials & Financial Services Analyst

Thank you.

Operator

Thank you. The next question is from Mario Mendonca from TD Securities. Please go ahead.

Mario Mendonca TD Securities Equity Research - MD & Research Analyst

Good morning. First, we could go to the CSM balance. That balance, can you give us an indication of how -- you're clear that the balance grows at 8% to 10%. Would it be fair to say that the amortization would also grow by 8% to 10%? And sort of related to that, how quickly does that CSM amortize? Is it over 10 years, 20 years? Can you give us an outlook on those 2?

Phil Witherington Manulife Financial Corporation - Chief Financial Officer

Sure, Mario. Thanks for the question. This is Phil. Your hypothesis is right there. We expect the amortization of the CSM to be about 8% to 10% per year. So over a 12-year period, it would emerge into income based on that math. But the reality is that we expect the CSM balance to not remain stable as a result of the new business generation but grow by a similar magnitude at 8% to 10%. And that really reflects the growth opportunity in our global franchise, in particular, in Asia.
Mario Mendonca  
**TD Securities Equity Research - MD & Research Analyst**

Okay. So the 8% to 10% you said in your opening comments, that was the 12 years you were referring to. I thought you said that was the growth in the balance?

Phil Witherington  
**Manulife Financial Corporation - Chief Financial Officer**

It's both. So 8% to 10% of growth in the balance, but also 8% to 10% amortization of that balance per year.

Mario Mendonca  
**TD Securities Equity Research - MD & Research Analyst**

I understand. Okay. And then my second question, and this might be more appropriate for Steve. Looking at the changes in assumptions, and I'm not talking about the non-economics, I'm talking about the economic assumptions. Changes in assumptions for public equities and ALDA going forward. Under IFRS 4, that would have been immediately reflected in your LICAT, would have been immediately reflected in net income, maybe taken out of core. It would have been reflected immediately in book value and book value excluding OCI.

But under IFRS 17, my understanding is that changes in things like public equity assumptions and ALDA will flow through all of those things, net income, core, book value, LICAT. First, do I have that right?

Steve Finch  
**Manulife Financial Corporation - Chief Actuary**

Mario, yes, you have that right. Under IFRS 4, we capitalized the full present value of all the future impacts as if we change an ALDA assumption. Under IFRS 17 because of the delinking between the assets and the liabilities, it does not impact the valuation. And if the assumption has changed, presumably that reflects what will actually occur, that will come in over time.

Mario Mendonca  
**TD Securities Equity Research - MD & Research Analyst**

And now because it's going to come in over time in all areas, core earnings, net income, book value, LICAT, does that change your perspective on making changes to assumptions because it was such a -- it could have such a dramatic effect under IFRS 4, it's much more, I'm going to call it, sensible under IFRS 17, does that change your perspective on making changes to those assumptions?

Steve Finch  
**Manulife Financial Corporation - Chief Actuary**

It -- I think it changes the amount of attention it gets in the spotlight because the capitalized impacts could be quite large, as you've seen from our sensitivities. But in terms of the rigor that we apply those assumptions are important for pricing, they're important for setting the right expectations for projections of earnings and for embedded value. And it will continue to get the same level of rigor and attention from Scott's group and my group.

And you saw in the -- in Phil's prepared remarks that over the last 18 years since the acquisition, we have been bang on effectively just a little higher than the current assumptions. So it will continue to get the same focus, but probably less of a spotlight.

Mario Mendonca  
**TD Securities Equity Research - MD & Research Analyst**

Yeah, thank you. Understood.

Phil Witherington  
**Manulife Financial Corporation - Chief Financial Officer**

Thanks Mario.

Lemar Persaud  
**Cormark Securities Inc., Research Division - Research Analyst**

Thanks. I will be really quick because most of my questions have been asked and answered. But just starting off here, I want to come back to Paul and Tom's questioning on earnings on surplus. So I just want to be clear here bottom line. Are you guys suggesting that this quarter is over $300 million in earnings on surplus is indicative of what we should expect moving forward or perhaps even some upside from that number from higher rates?
Phil Witherington Manulife Financial Corporation - Chief Financial Officer

Thanks, Lemar, for the question. This is Phil. I think what we are seeing this quarter is a reasonable baseline. The benefits that are included this quarter from the seed capital and available-for-sale equity gains are at the higher end of our typical range. In fact, just over the higher end of a typical range, but only by about $10 million post-tax. As I said earlier, the main benefit is actually the impact of higher interest rates, which is showing through on our fixed income portfolio within surplus.

And when we break that down as to what’s driving that increase in the fixed income yield, there are a couple of things. One is the impact of higher rates on the shorter-term instruments that we include in that portfolio, but then also the impact of trading within the portfolio. And Roy earlier referenced $170 million a pre-tax of benefit that we have seen in 2022 from higher rates. So that’s the benefit through the year on our interest on surplus -- or the fixed income element of our earnings on surplus.

About $80 million of that $170 million was coming from the impacts of higher rates on the shorter-term instruments. And then $120 million of it was coming from trading longer-term instruments, therefore, locking in a higher yield. And offsetting that was a slight increase naturally in the cost of debt in a higher interest rate environment, and that all nets off to the $170 million pre-tax that Roy referenced.

Lemar Persaud Cormark Securities Inc., Research Division - Research Analyst

Okay. Great. And then just my second question here. You guys talk about how Manulife has returned a significant amount of capital to shareholders over time. I just want to try this one again because I think it’s come up in the past. How should we think about excess capital for deployment under IFRS 17, maybe in terms of dollars and directionally, is it higher than under IFRS 4? I know you guys had referenced the $20 billion over the supervisory target. But presumably, not all of that is deployable. So how should we think about that?

Roy Gori Manulife Financial Corporation - President & Chief Executive Officer

Yes. So Lemar, a couple of thoughts. I mean, again, I would just go back to my earlier point, and that is that we are clearly in a very strong capital position. This has been a big focus for the company over the last 5 years. We have freed up $9 billion worth of capital, and that’s put us in a position of strength, which has given us a lot of flexibility and optionality, which is why we have deployed capital, not only organically but inorganically as well as against dividend increases and share buybacks.

Obviously, as we transition to IFRS 17, we have been closely looking at what that means to our LICAT ratios and our surplus. And as we have shared in our presentation, we see that our LICAT ratio, based on rates as at the end of the year, appear to be -- putting us in a position where we will have a higher LICAT ratio -- slightly higher LICAT ratio of a couple of percentage points.

So we are not really going to share much more than that at this point. I’d sort of hold out until we are able to really share much more details at our next earnings call on more data on that front.

Phil Witherington Manulife Financial Corporation - Chief Financial Officer

Thanks, Lemar.

Operator

Thank you. The next question is from Nigel D’Souza from Veritas Investment Research. Please go ahead.

Nigel D’Souza Veritas Investment Research Corporation - Senior Investment Analyst

Thank you. Good morning. I wanted to circle back on Asia and get a better sense of the underlying trends there. When I look at the last 4 quarters, premiums have just lowered, but it looks like that's offset by higher profitability. I was wondering if you could speak to how much of the trend we see in 2023, you could attribute to mobility restrictions, how much you attribute to sentiment from market volatility and economic uncertainty? And how much you attribute to just changes in product mix? And how do you see those factors spinning out in 2023?
Damien Green  Manulife Financial Corporation - President & CEO, Manulife Asia

Nigel, thanks for the question. I think it's all of those things. I mean apportioning is not necessarily easy to do. But I would say predominantly what's impacted our results in Asia over the course of 2022 was the extended or lingering COVID containment measures in China and Hong Kong. These are both core businesses for us. And I think we saw those containment measures linger on well into 2022 in both Hong Kong and China. And that impacted consumer sentiment, economic growth and further constrained our growth opportunity in those markets in the year.

Generally, though, I'd say that we did -- through our focus on execution and resilience, we were able to post, as you know, year-on-year and quarter-on-quarter core earnings growth in the fourth quarter, despite the uneven kind of post-pandemic recovery there. Underpinning that momentum was Hong Kong, where we saw quarter-on-quarter improvement in all key metrics in the fourth quarter; APE, core earnings and NBV. Japan continues its terrific turnaround, delivering high double-digit growth in core earnings quarter-on-quarter and for the full year.

And the Asia Other grouping, we delivered a robust core earnings growth result also. So just to circle back and summarize, I think it very much -- the constraints last year were driven by sentiment -- external factor sentiment, capital market volatility and so far as product mix is concerned, probably only in China, that was a relevant factor where you can see our core earnings and NBV results in China. Whilst we have got some resilience coming through and we registered 4% growth in APE for the full year in China, which was extraordinary given the difficulties across the economy, what constrained us in terms of product mix were some one-off changes to the regulatory environment around critical illness products.

Key point there is those changes are probably good for the long term of the industry in terms of sustainability in China. They do not preclude us from undertaking margin enhancement. And indeed, that's underway for us, and we feel quite optimistic about that in the first quarter and the first half of 2023. Thanks, Nigel.

Roy Gori  Manulife Financial Corporation - President & Chief Executive Officer

Nigel, I might just add a couple of points. '22 was a challenging year for Asia, specifically as it relates to COVID with the restrictions that Damien referenced and referred to. And we saw in North America, Canada and the U.S., actually more of a normalization, a return to normal from a sales perspective as it relates to COVID. There are clearly still some lingering impacts. But we had really strong growth from a sales perspective in North America with 25% and 18% NBV growth, respectively.

But dial back to '21, it was almost the opposite. In '21, we saw North America -- really significantly negatively impacted by COVID restrictions. And Asia actually did quite well there. So we did see the balance of our portfolio actually weather those environments quite well, and that was the strength of our diversity. And again, as we look to '23, we are actually quite optimistic, notwithstanding the comments that Damien mentioned around will take some time for that Zero COVID policy to really transition and unfold.

But we are feeling quite optimistic about '23 being a year where we will see more of a return to normalization specifically as it relates to COVID restrictions and the impact on sentiment and therefore, on sales.

Nigel D'Souza  Veritas Investment Research Corporation - Senior Investment Analyst

Okay. Thank you. That's a very helpful answer. And my second question was on your LICAT sensitivity. When I look at your interest rate sensitivity disclosure, the dollar amount from a 50-basis-point increase is the same, but the percentage-point impact went down to 2 percentage points. I assume that's rounding. But I wanted to get a sense of the convexity of that portfolio. Is there a level of rates where the percentage point impact could fall to 1%? And does any of the interest rate sensitivity change under IFRS 17?

Steve Finch  Manulife Financial Corporation - Chief Actuary

Yes. Thanks, Nigel. It's Steve. And you got that right, that what we have seen is some convexity here. As rates have risen, we have seen less sensitivity in the LICAT ratio under IFRS 4. And that same phenomenon will be there under IFRS 17. But as Phil pointed out earlier, overall, the LICAT ratio under IFRS 17 will be less sensitive to interest rates, which we view as a positive. It increases the stability. So we will see that sensitivity drop further under IFRS 17. Thanks.
I will leave it there. Thank you.

Operator

Thank you. There are no further questions registered at this time. I'd like to turn the call back over to you, Mr. Ko.

Hung Ko Manulife Financial Corporation - VP, Group Investor Relations

Thank you, operator. We will be available after the call if there are any follow-up questions. Have a good day, everyone.

Operator

Thank you. The conference has now ended. Please disconnect your lines at this time, and we thank you for your participation.