

An insurance perspective on implications of the pandemic

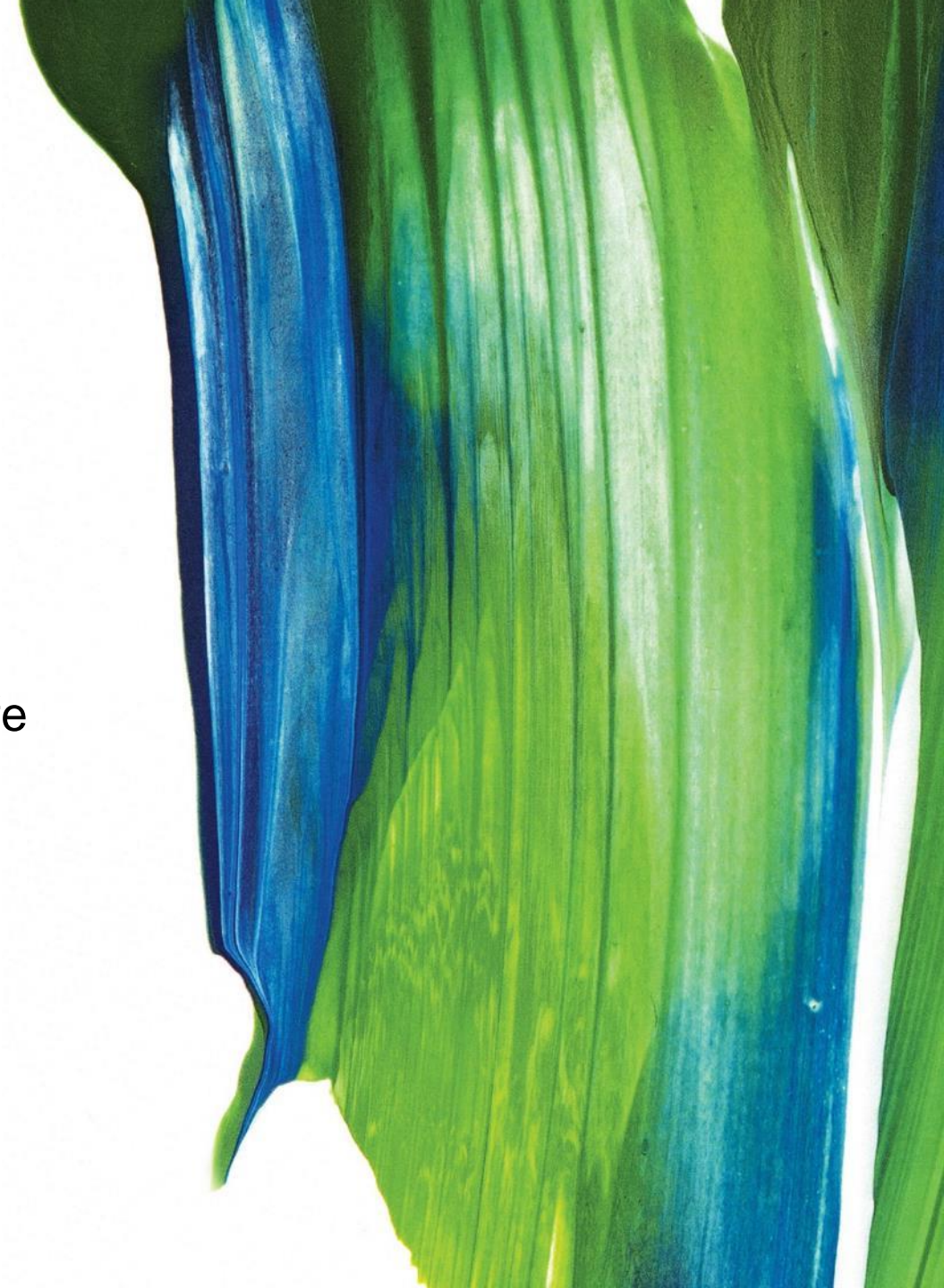
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Disclaimer: The views and opinions expressed in this presentation are of the presenter and do not necessarily reflect those of Manulife



Executive Summary

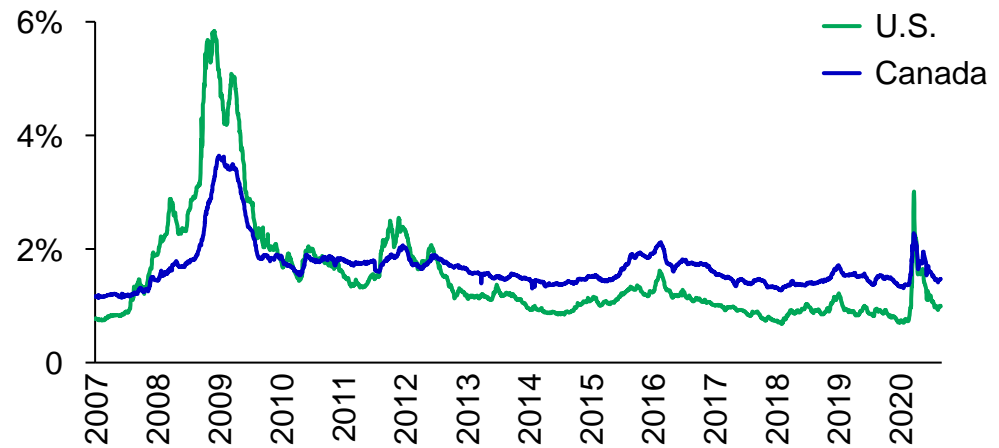
- Pandemic generated a variety of first- and second-order impacts on the insurance industry
 - Agile reactions to the lockdown demonstrated the industry's operational preparedness and digitization progress
 - Underlying businesses proved resilient although reported financial results are susceptible to volatile markets
- Insurers entered the pandemic in a strong financial position, and remain sufficiently capitalized in relation to the current estimates of potential COVID-19 claims
- Reactions of key external stakeholders have been constructive
- Along with other issuers, insurers have proactively accessed bond markets at historically low coupons
- As the pandemic environment evolves, several trends are key:
 - Ongoing digitization of business
 - Credit experience and asset valuations
 - Product demand and innovation
 - The impact of 'lower for longer' interest rates

The pandemic had a profound impact on the economy and markets

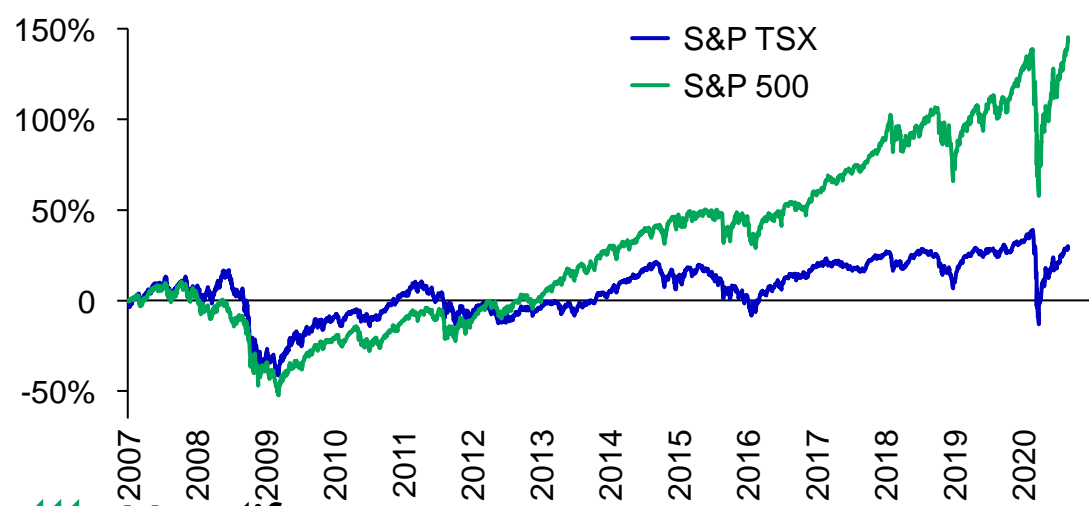
30-year treasury rates



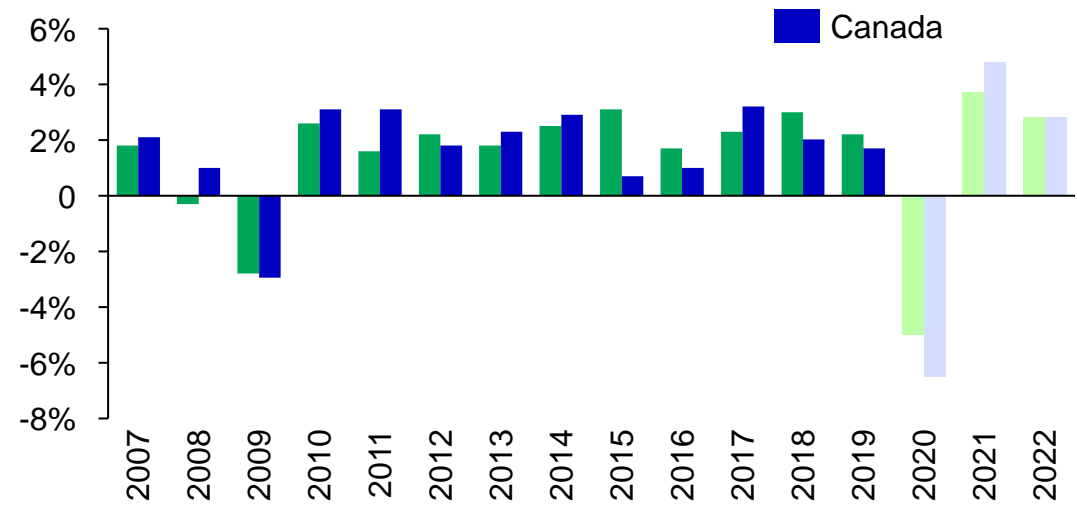
Corporate spreads



Equity markets



GDP growth rates



Sources: Treasury rates are "GCAN30YR" and "USGG30YR" indices from Bloomberg; U.S. Corporate spreads is Barclays Aggregate index ("LU1AOAS") and Canada is 30-year Corporate A index ("C87830Y") relative to 30-year treasury rate; S&P500 and S&P TSX sourced from Bloomberg; GDP Data, including 2020+ forecasts, sourced from 'EHGDCA'Y' and 'EHGDUS'Y' indices from Bloomberg.

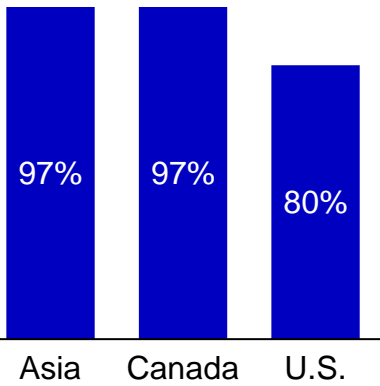
Operational agility has been strong across the industry

- Insurers adapted quickly to the environment of social distancing as investments in **digitization** were well underway
- Smooth transition across the industry to **working remotely**
- Pandemic accelerated customer acceptance of **digital tools**
 - Ultimately, however, **human interaction** and advice remain desirable
- **Cyber risk**, from both an operational and underwriting perspective has been closely managed
- Focus on **cost efficiency** has intensified

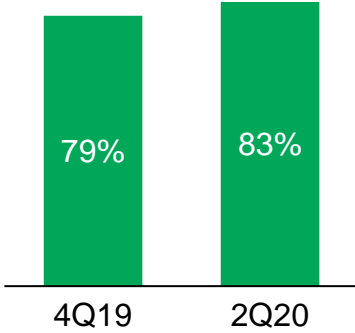
COVID-19 and Digitization – Manulife’s Case Study

Digital KPIs

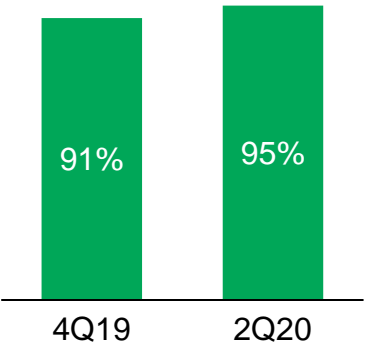
Annualized Premium Equivalents (APE) available to be sold via non-face-to-face¹ methods²



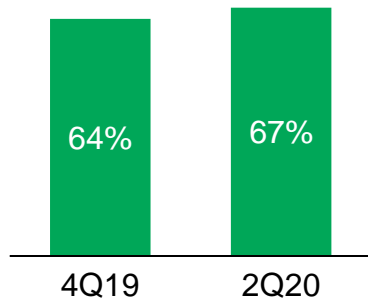
Straight-through processing (including money movement)



Digital claim submission



Auto-underwriting



Customer adoption trends

Asia

54% of new business in Asia submitted electronically in 2Q20 (up from 44% 4Q19)

87% of first premium payment submitted digitally in 2Q20 (up from 84% 4Q19)

Canada

88% of Canadian insurance³ applications received electronically in 2Q20 (up from 67% in 1Q20)

64% e-delivery of Canadian individual insurance policy contracts in 2Q20 (up from 40% in 1Q20)

U.S.

42% of U.S. insurance applications received via digital/tele apps in 2Q20 (up from 28% in 1Q20)

100% e-delivery of US life policy contracts in 2Q20 (up from 20% pre-lockdown)



¹ Non-face-to-face, includes digital as well as non-digital solutions. ² Represents the percentage of 2019 APE sales that are currently available for sale via non-face-to-face methods (applies to Asia, Canada and U.S.). ³ Out of total eligible Retail Insurance policies

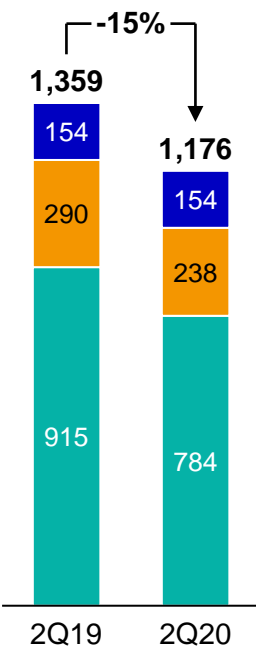
Insurance industry financial results have been resilient

- **Solid adjusted (“core”¹) earnings** with better than expected sales and minimal credit hits
- **Better than expected policyholder experience** as higher COVID-19 related claims in some business lines were offset by lower claims in other lines
- Geographic and business **diversification** improved resilience
- Hedging strategies performed effectively
- But **reported IFRS/GAAP net income** was considerably **weaker** across the board
 - The income decline **driven by** the general economy and markets as well as valuations of real estate and alternative **assets, as opposed to** pandemic-related **insurance claims**
- **Capital and liquidity positions remained robust**

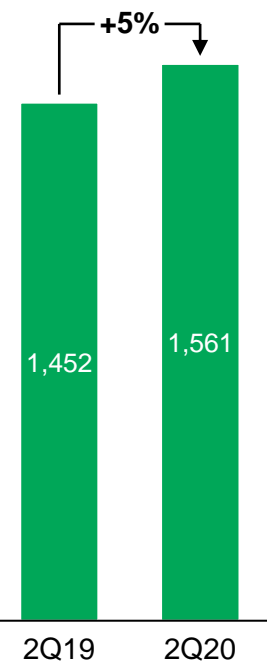
Resilient financial results – Proof points

Manulife 2Q20 results¹

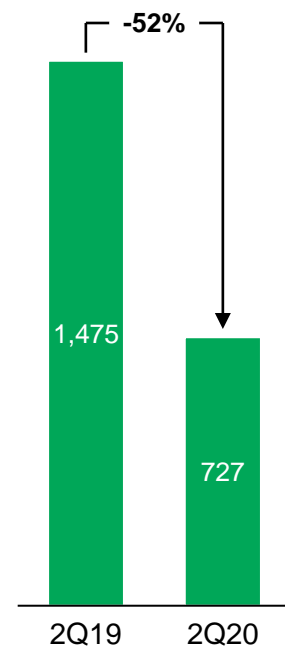
APE sales (C\$ millions)



Core earnings (C\$ millions)



Net income attributed to shareholders ("reported earnings") (C\$ millions)



U.S. Life Insurance 2Q20 results²

↓ **4%**
Aggregate individual life insurance sales vs 2Q19

↓ **32%**
Aggregate core earnings vs 2Q19

↓ **\$13.5B**
Aggregate decline in reported net income vs 2Q19 (from \$7.3B gain to \$6.2B loss)

CDN Life Insurance 2Q20 results³

↓ **4%**
Aggregate insurance sales vs 2Q19

↑ **6%**
Aggregate core earnings vs 2Q19

↓ **15%**
Aggregate decline in reported earnings vs 2Q19

Responses of key stakeholders have varied

Regulators

- Demonstrated flexibility and pragmatism
- Supported customer relief measures granted by the industry
- Restrictions on dividends and share buybacks varied by jurisdiction
- Limited regulatory forbearance in North America as capital rules are not excessively pro-cyclical

Rating Agencies

- Capital and balance sheet strength have limited adverse rating actions thus far
- Stress tests led to a general conclusion that the industry is well positioned to absorb COVID-19 claims although there remains considerable uncertainty of future events
- Pandemic increasingly viewed as an earnings (as opposed to capital) event

Investors

- Life insurance share prices have broadly underperformed the market. Relative to the banks, they also underperformed in Canada but outperformed in the USA
- At the same time, insurers were able to access bond markets at historically attractive coupons

Insurers accessed bond markets at historically low coupons

- Companies have been keen on pre-financing their maturities and contingent needs through debt issuances ahead of uncertain markets
 - Relatively low leverage ratios provided insurers with the necessary financial flexibility
- Spreads are well below the Global Financial Crisis and coupons at historically low levels
- In response to regulatory guidance, share buybacks and dividend increases were suspended in Canada
 - Capital preservation actions varied by jurisdiction
- Enhanced focus on liquidity – traditionally low-risk for the sector

Highlights

\$5.9B

Canadian insurance sector
issuances in Canada
(Aug YTD);
**Most active year in
insurance sector¹**

\$59B

U.S. insurance sector
issuances (Aug YTD);
**already surpassed 2019
full-year levels¹**

3.05%

MFC issuance in Taiwan of
US\$1.155B 40-year NC5²
debt; **165bps lower than
similar issuance in 2016**

Looking forward



The pandemic has **heightened awareness of the benefits of having insurance**, driving demand up



A **recession and elevated unemployment** levels may depress demand for insurance products in the short-term



Digitization of sales, underwriting, payments, claims processing and operations continues to expand



Product innovation to include pandemic insurability, a growing focus on behavioural as well as use-based insurance

Insurers remain well capitalized to handle COVID-19 claims

The insurance industry has robust capital levels

| Estimated capital bases | | |
|---------------------------------------|--------------------------------------|---|
| U.S. lifeco capital base ² | U.S. P&C sector surplus ⁵ | Global reinsurance sector's capital base ⁴ |
| US\$470B | US\$860B | US\$559 |

Estimates of total industry losses pertaining to COVID-19 vary, clustered around \$100B, but go as high as \$140B. Most pertain to commercial non-life claims.

Actual claims thus far have been limited

- Estimated total insurance industry losses are >US\$20B³
- Represents only 1%³ of combined market capitalization
- Reinsurance sector has been relatively more impacted, with losses of 6%³ of combined market capitalization

Property & Casualty companies face a highly publicized issue of contractual obligations under business interruption coverage



¹ Manulife: Total company impact for those businesses with direct exposure to mortality or longevity, each incremental 100K U.S. death, post-tax. Prudential: Net mortality/morbidity sensitivity impact for every incremental 100K U.S. fatality. RGA: pre-tax mortality claims for every additional 1.4 million global deaths, including 100K U.S. deaths. ² IMF, Impact of COVID-19 on Insurers, May 18, 2020 ³ Citi, Insurance Q2-2020 Update, September 2020 ⁴ EIOPA, Financial Stability Report, July 2020 ⁵ Citi, COVID-19 impacts for the insurance sector, April 2020

Published lifeco sensitivities appear manageable

Company-specific sensitivities have been modest

| Company | Earnings sensitivities to 100K U.S. deaths ¹ | % of shareholders equity |
|------------|---|--------------------------|
| Manulife | -C\$30M | 0.1% |
| Prudential | -US\$70M | 0.1% |
| RGA | -US\$200 to 300M | 1.6% - 2.4% |

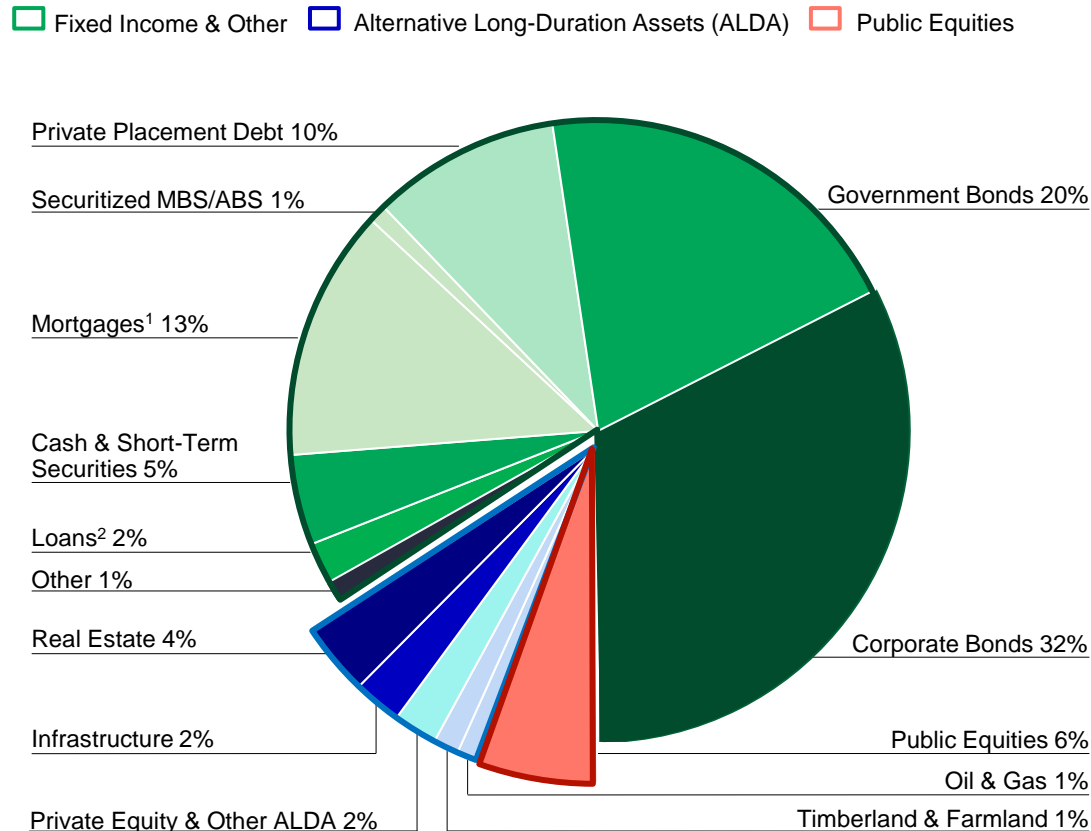
U.S. Lifeco industry capital appears adequate, per IMF analysis²

| U.S. Scenario | Total industry losses | % of lifeco industry capital |
|--|-----------------------|------------------------------|
| 1.5 deaths per 1,000 (500K deaths, or 8% of population affected) | US\$26B | 5.5% |
| 30% of total population affected (similar to Spanish Flu) | US\$90B | 19% |

Investment results will likely dominate reported profitability

Manulife's case: Total invested assets

(C\$378.5 billion, carrying values as of December 31, 2019)



Lifeco invested asset characteristics

- Largest asset class is generally fixed income
 - Canadian lifeco portfolios are ~70% fixed income³
- Fixed income is predominantly investment grade
 - 98% of Manulife's public and private debt is investment grade
- Alternative assets typically support long-term liabilities where fixed income assets of acceptable quality, return, and/or duration are not available
- Real Estate is generally the largest category within alternative asset holdings

Credit risk has been rising – impact on individual insurers will reflect quality of investment selections

Rating agencies have been active reviewing ratings and placing industries and companies on negative outlook

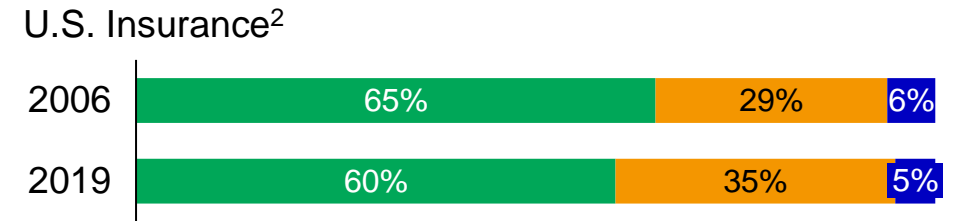
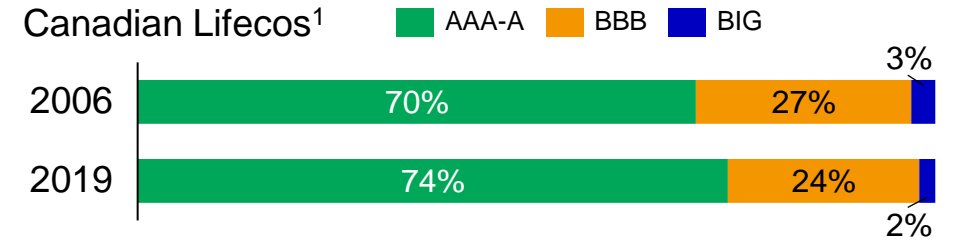
“2020 on pace to set downgrade record”
- Fitch

DBRS took **300+** rating actions since March; 62% related to investment grade issuers

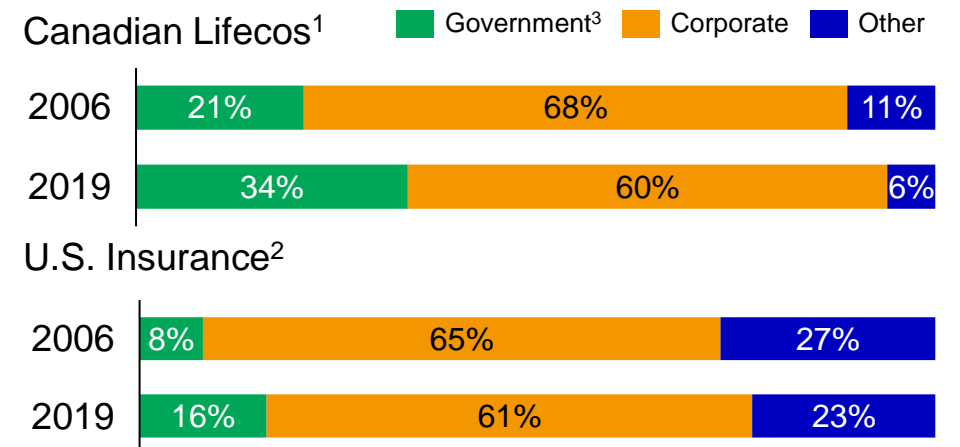
S&P weakest links⁴ around 600

Moody’s global default rate is projected 8.8% by YE2020 – more than **twice the long-term rate** of 4.1%

Fixed income rating evolution



Fixed income sector evolution



'Lower for longer' interest rates reinforce challenges of the economic environment

Sector adjusted to low rates post Global Financial Crisis

- Increased hedging
- Adjustable products
- Reduced offerings of guarantees

Longer term, low rates remain a challenge

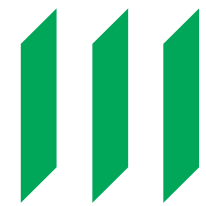
- Pressure on valuation of liabilities
- Lower investment income
- Less long term products offered, less guarantees – contrary to the current consumer preferences

Non-fixed income economically attractive, but...

- Punitive treatment under mark-to-market accounting
- Onerous capital standards

In summary...

- Resilient industry, both operationally and financially
- Solid capitalization levels relative to the current estimates of potential COVID-19 claims
- Challenges largely related to macroeconomic uncertainties and markets: low interest rates, suppressed investment returns and suppressed valuations of select asset classes
- Digitization will continue to transform business and customer experience



Manulife