



Presentation to the Canadian Fixed-Income Forum

From your perspective, what are the recent drivers in fixed-income markets?
Which issues or risk factors are you spending the most time monitoring?

June 15, 2021

Context: Role of Fixed Income for Pension Plans

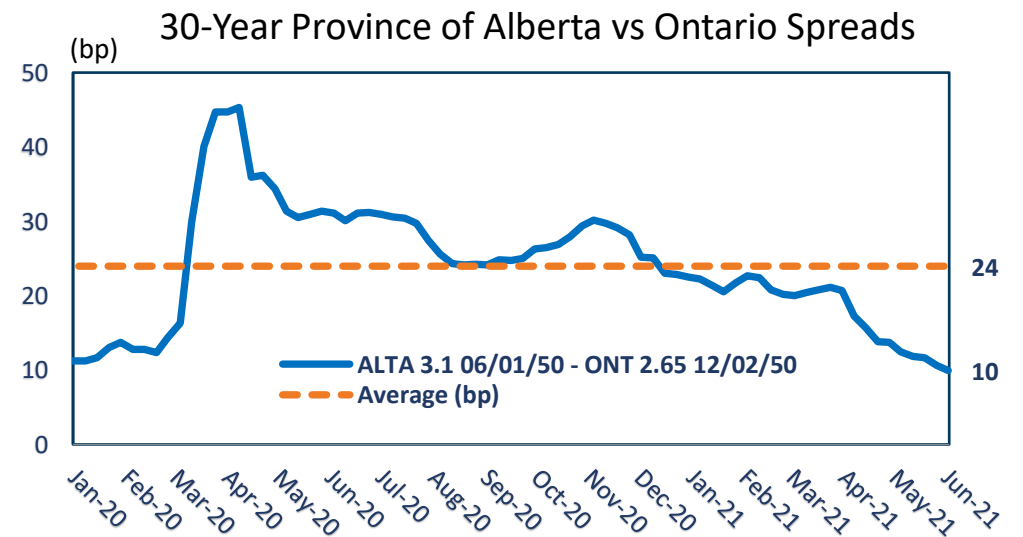
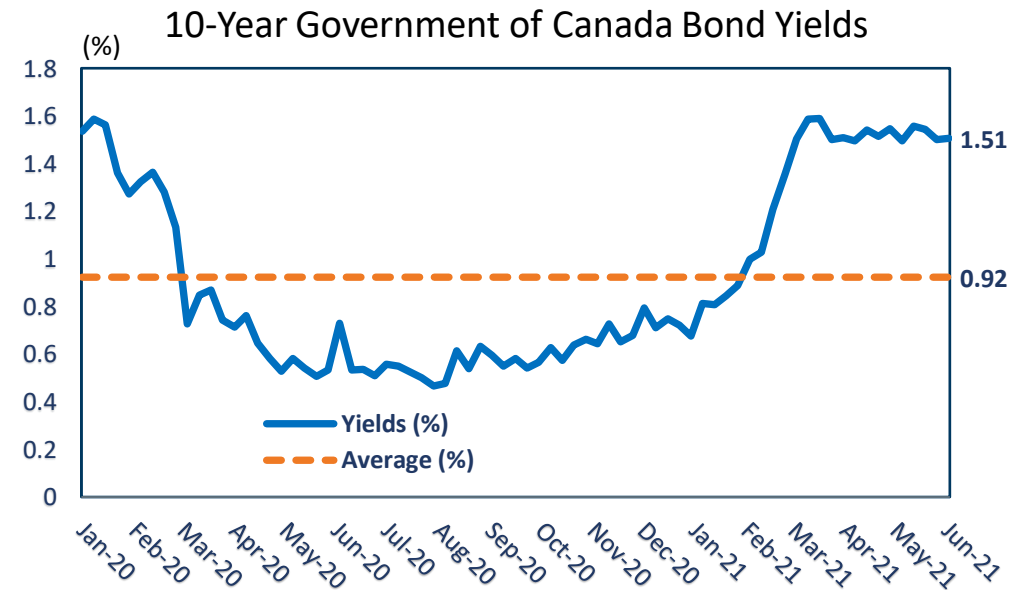
What risks do we monitor? Any development in the fixed-income markets that threatens the role of fixed income in the asset mix of pension plans, such as a breakdown in the negative correlation with equities, or sustained very low bond yields, would be problematic to pension plans

- While earning sufficient long-term risk-adjusted return is paramount for pension plan health, a liability hedging portfolio is a key component of the asset allocation of most pension plans, particularly those that operate under a regulatory regime that includes a solvency test (i.e. valuation of assets and liabilities at a discount rate that reflects the cost of annuities, smoothed over multiple years), and for many that focus on going-concern funded status (i.e. valuation based on the long-term expected return of the long-term policy/target asset mix)
- Liability hedging portfolios have contributed to the resiliency of the health of pension plans because they have:
 - acted as a diversifier and a risk mitigant in equity market downturns;
 - earned a modest rate of return (overlay hedges are more attractive when the yield curve is steep); and
 - protected against the rise in the discounted value of solvency and going-concern liabilities as interest rates fall
- For most plans that are open to new members, fixed income does not currently provide a high enough long-term expected return to achieve or maintain fully funded status on a solvency or going-concern measure; plans therefore require return-seeking growth assets (public equities, privates, real assets) and may include absolute return strategies and leverage to meet the pension promise
- Most pension plans do not fully hedge the interest rate exposure of their liabilities, i.e. pension funds are generally net short long-term interest rate exposure, therefore, as interest rates rise, funded status improves even though total return on the liability hedging portfolio may be low or negative
- The CN Investment Division aims to achieve sufficient long-term return while prudently managing risk through a long-term asset mix that balances return seeking and liability hedging using active management, diversified strategies, and modest leverage

Liability hedging generally consists of long-term government bonds with additional credit exposure that may include provincial and corporate bonds, and other credit such as mortgages, asset-backed securities, etc. Other interest rate sensitive assets may be included and real estate is sometimes considered to be a liability hedge.

10-Year Government of Canada Bond Yields

- Central banks continue to suppress interest rates, although 10-year GoC bond yields have rebounded to levels prior to COVID-19 (chart at right)
- The historical relationship between nominal interest rates and inflation is not holding; real bond yields are in negative territory and inflationary pressures are mounting
- The substantial increase in the amount of government debt in developed markets may not be transitory
- Bank of Canada buys 40% to 50% of new GoC issues – how will this change with possible tapering vs. government det issuance? (chart page 4)
- There is little distinction in market spreads across provinces
 - the perception of a safety net by market participants is resulting in spread compression: yields of other provincial bonds are converging to Ontario provincial bond yields which have benchmark status
- But... if tapering of asset purchases by central banks puts upward pressure on interest rates, will provincial and municipal governments be able to fund themselves and support the higher cost of larger amounts of debt?

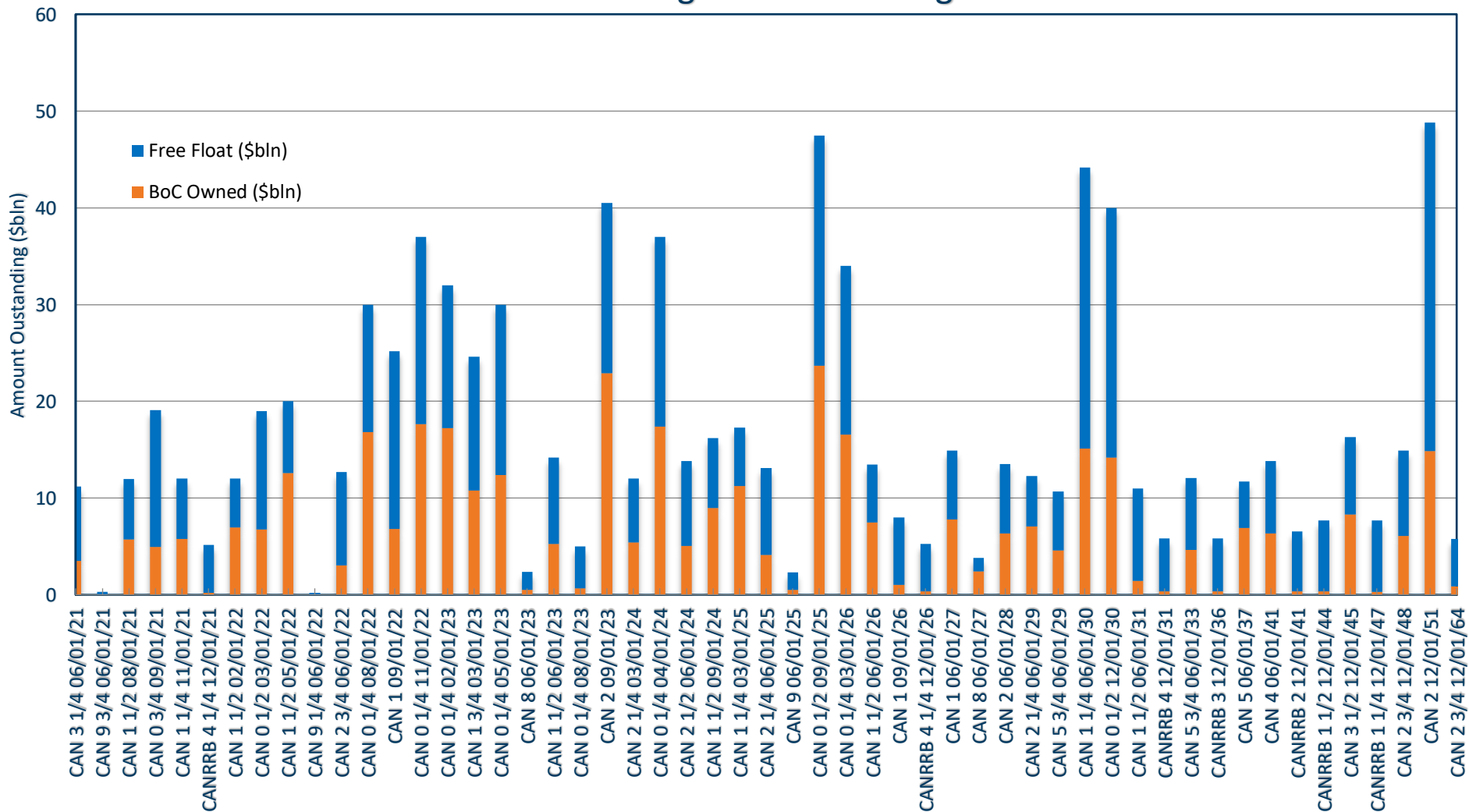


Source: Bloomberg

Bank of Canada Holdings are Significant

How and when will tapering unfold and with what market impact?

Bank of Canada Holdings vs. Outstanding Amounts

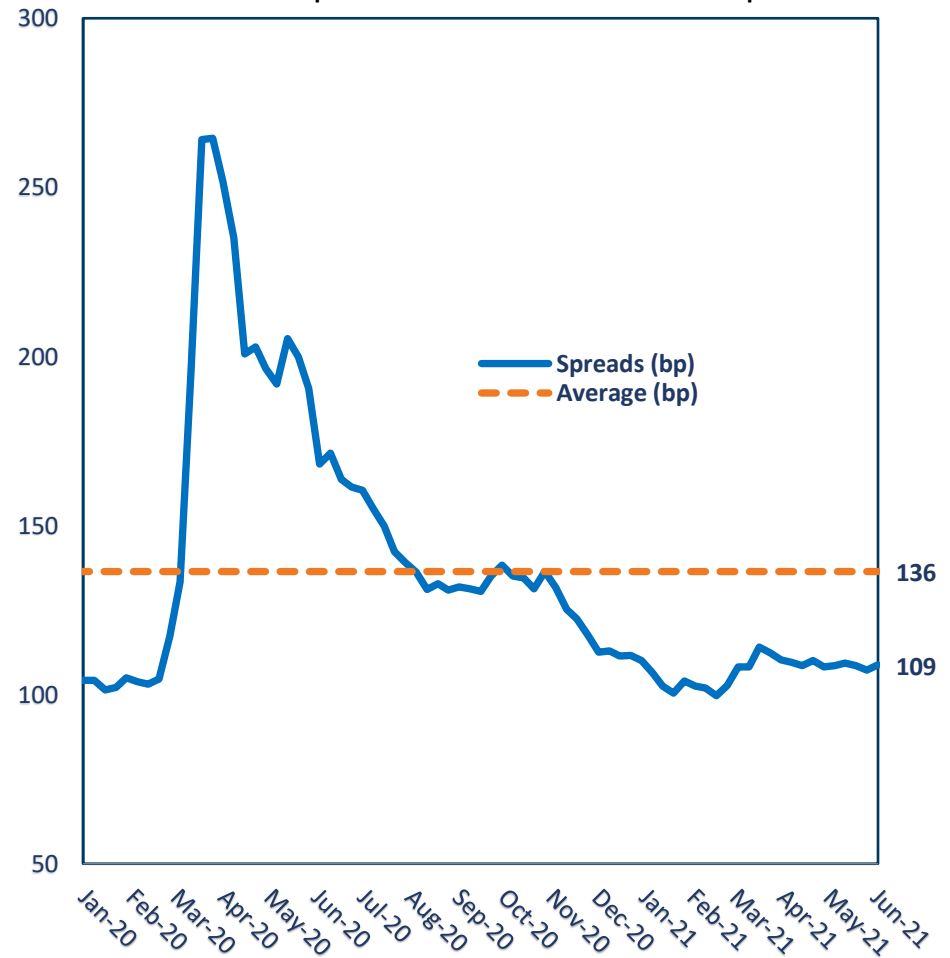


Source: Desjardins Securities, Bank of Canada

Recent Drivers of Corporate Bond Markets from a Pension Perspective

- Strong support of the economy and financial asset prices by governments and central bankers supported the quick recovery of corporate spreads in 2020
- Companies were prompt to raise liquidity at attractive all-in yields through sizeable issuance, but this is tapering off (charts on page 7)
- Corporate spreads and 10-year GoC bond yields are back to pre-crisis levels, implying limited room for further spread compression even with strong fundamentals

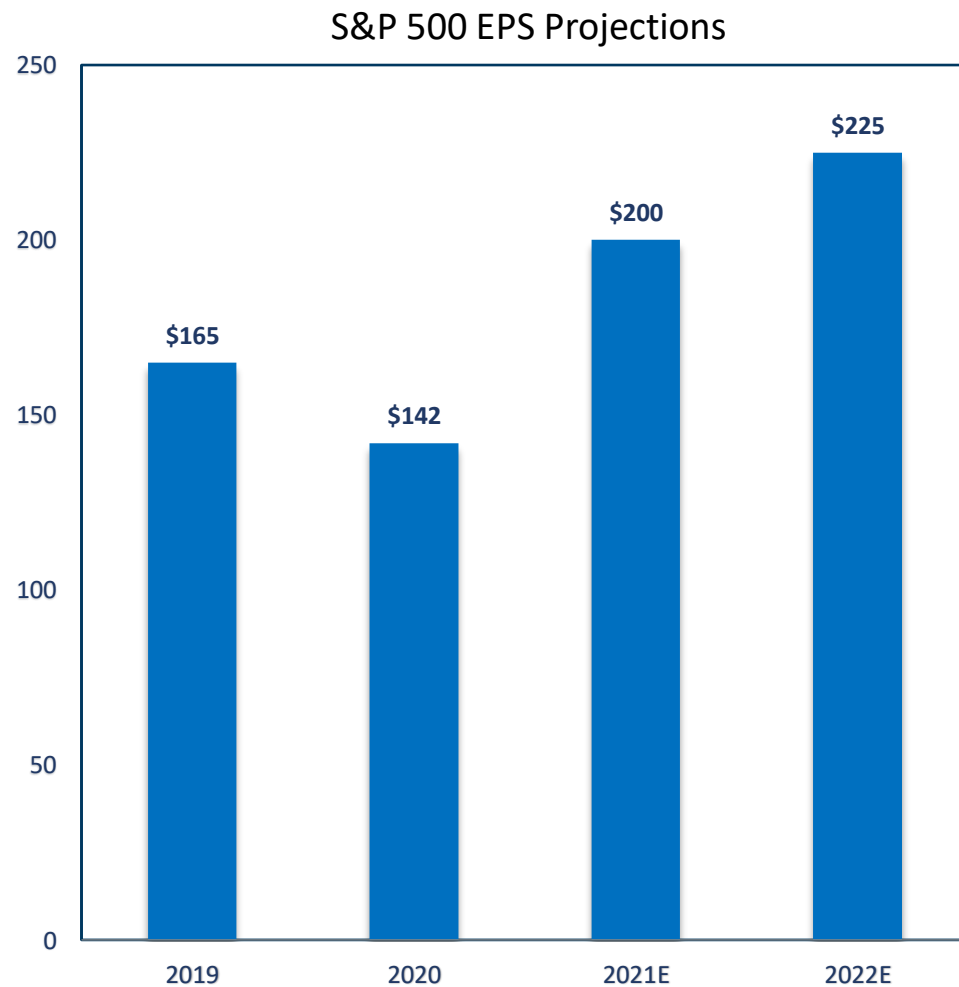
Canadian Corporate Investment Grade Spreads



Source: Bloomberg

Corporate Market Dynamics

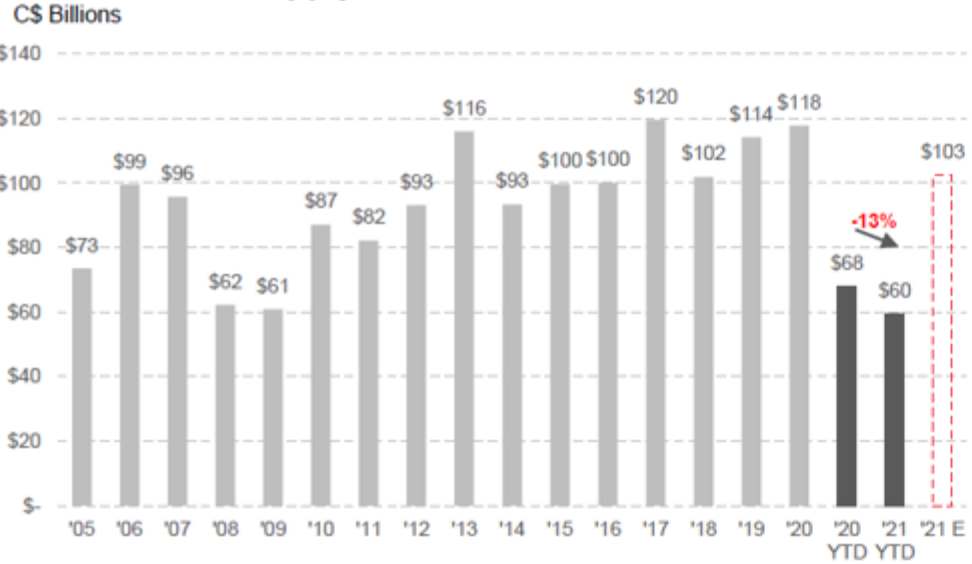
- The global economy is now reopening and consumers have hoarded cash
- Positive inflows of cash to the corporate bond market have been sustained for several quarters. Investors are chasing yields wherever they can.
- Corporate earnings are also recovering meaningfully (chart to the right), and we have seen very positive rating actions recently (charts on page 8)
- Higher inflation, higher interest rates could bring a risk-off tone, putting upward pressure on corporate spreads
 - pent up demand as the economy is opening up while inventories are tight due to supply chain delays and labour shortages, coupled with government spending, is leading to commodities trending higher
- Sector and individual credit selection are important in this market, and some shareholder friendly transactions could occur (e.g. share buy-backs, levered M&A, increased leverage)
- The CN Investment Division focusses on security selection within the Canadian corporate market, with private and emerging market debt allocations for diversification



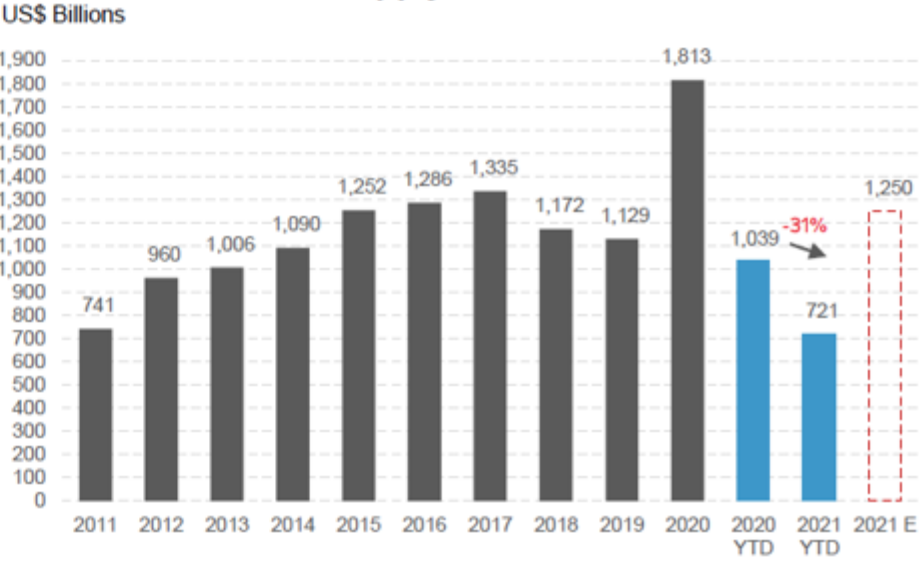
Source: CSFB

Corporate Issuance has Taken Advantage of Low All-In Interest Rates but is Tapering off

C\$ New Issue Supply Below 2020 YTD Issuance



YTD US\$ New Issue Supply 31% below 2020's Pace

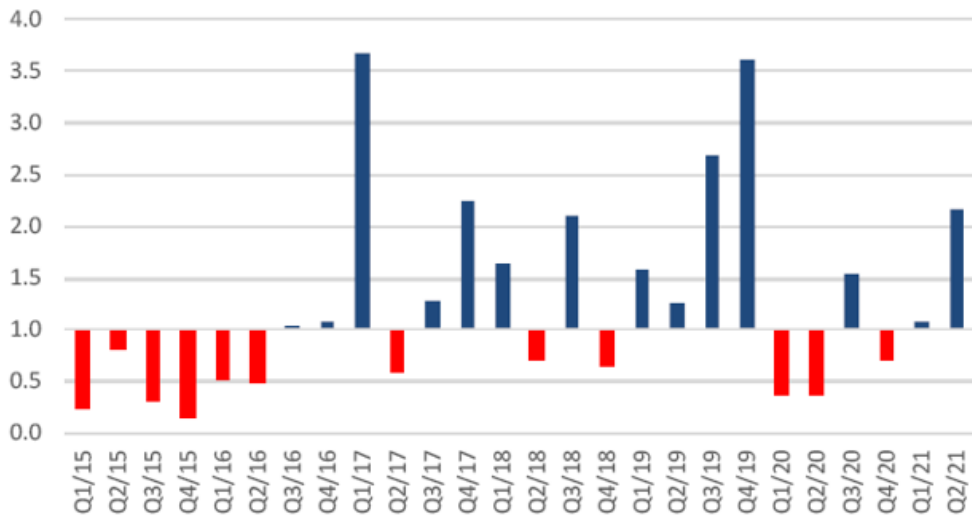


Source: Scotia GBM

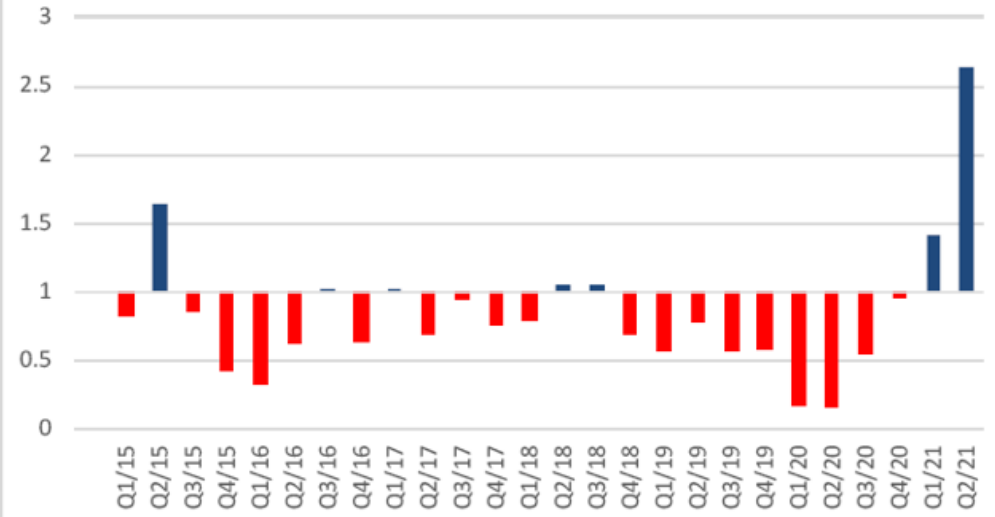
Healthy Corporate Credit Ratings

Historical Upgrade-to-Downgrade Ratios

Upgrade/Dowgrade Ratio - Canada



Upgrade/Dowgrade Ratio - US



Source: Bloomberg. The ratio represents the average amount of upgrades to the average amount of downgrades for Canadian and US issuers. For Canadian issuers, we use DBRS, Moody's, S&P and Fitch. For US issuers, we use Moody's, S&P and Fitch.

Conclusion: What are we Most Concerned About Related to Fixed Income?

- **Markets:** The necessary response to the global pandemic by central banks and spending stimulus from governments around the world have caused significant distortions in fixed-income markets
 - negative real yields fuel investments in risky assets, and low return capital projects have become acceptable but do not contribute materially to economic growth
 - lower level of all-in rates and credit risk premia may be sensitive to higher government debt levels, especially if rating downgrades occur
 - expanded central banks' balance sheets may lead to "taper tantrums" (market overreaction)
 - the need for governments to fund deficits may put upward pressure on interest rates
 - inflation pressures may push nominal interest rates higher – painful in the near term but helps long-term returns in the future
 - the question remains whether global central banks will try to rein in inflation expectations by being hawkish first, which increases the risk of financial market overreaction
- **Consequences for pension plans:** The current market distortions have caused pension plans to re-evaluate the effectiveness of fixed income in the context of liability hedging
 - it is challenging to earn sufficient return to meet the pension promise because lower interest rates and tighter credit spreads result in lower return expectations for both fixed income and return-seeking assets
 - this puts pressure on pension funds to enhance potential returns through increased leverage, absolute return strategies, illiquidity premia, and a variety of alpha sources through active management
 - any volatility resulting from policy surprises may create both increased risks and opportunities
 - increasing concern about inflation is prompting close examination of inflation hedging strategies, such as commodities and real estate, especially for pension plans with liabilities that are indexed to inflation
 - any regulatory changes to solvency rules (looser or tighter) could impact demand for long-term bonds
 - improved funded status (due to recent rise in interest rates) may lead to increased activity in the annuity market