

# Credit Research Update

**Peter Hajjar**

Head of Cash and Structured Credit Research  
Fixed Income, Cash and Currency

As we pass the mid-way point of 2021, it makes sense to reflect upon the global economic recovery from the pandemic, the potential implications for credit markets and the future path of the credit cycle. Simply put, the global recession recovery from the COVID-19 pandemic will likely have very few similarities to the recovery from the global financial crisis (GFC) of 2008/2009.

---

The post-GFC period was defined by sovereign fiscal austerity, low investment, a deleveraging consumer and central banks acting pre-emptively to limit inflationary risk. The current situation is strikingly different; global fiscal policy remains exceptionally expansionary, consumers in the US, Europe and Asia continue to exhibit a strong credit profile with record levels of savings, and public and private sector investment is increasing. Compared to the post-GFC period, the global direction of fiscal policy has shifted from austerity-focused to fiscal activism, as the global fiscal response to this recession is already the largest since the Second World War! All the while, global interest rates remain near historical lows. Easy fiscal and monetary policy combined with strong consumer health and growing investment create a powerful concoction for global economic growth.

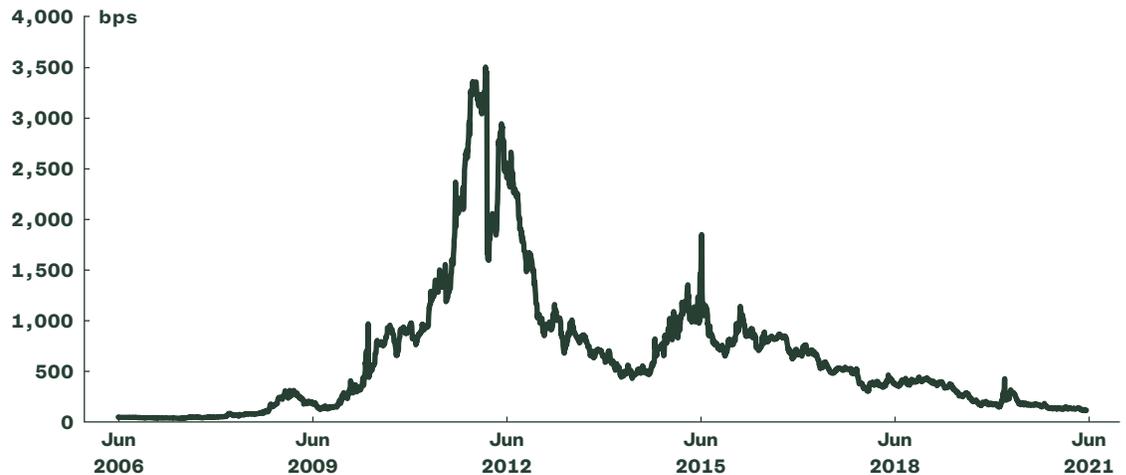
Despite the expectation of exceptionally strong growth, global central banks remain relatively dovish and seem to be explicitly aiming for a high-pressure economy. The US Federal Reserve (the Fed) continues to focus on still-elevated unemployment, coupled with a recent commitment to average inflation targeting, while the European Central Bank (ECB) is acutely conscious of its long running inflation undershoot and significant financial market volatility following its premature 2011 rate hikes. The best-case scenario is that such an economy will create broad-based and inclusive economic growth, which will help to reduce the impact of the recession on lower-income households and address income inequality.

On many levels this experiment seems to be going well, so far. For example, Bloomberg's US Financial Conditions Index (which includes measurements of conditions in money markets, credit spread products and equity markets) has eased to near 14+ year highs. Credit conditions for our major global cash investment counterparties continue to be quite strong. For most of the banks and financial institutions that are our largest investment counterparties, indicators of asset quality and core balance sheet credit metrics are exceptionally healthy. Even bank profitability has improved materially, driven by loan-loss provision releases, the resumption of loan growth, and robust capital markets and investment banking income.

Sill, we to have wonder whether fiscal and monetary policymakers will end up having to reconsider the impact of this extreme stimulus in the quarters ahead. We see two primary risks related to the current policy backdrop: complacency and/or inflation. Both could cause tightening financial conditions and disrupt the economic growth and credit cycles over the medium term. We view the two as being highly correlated.

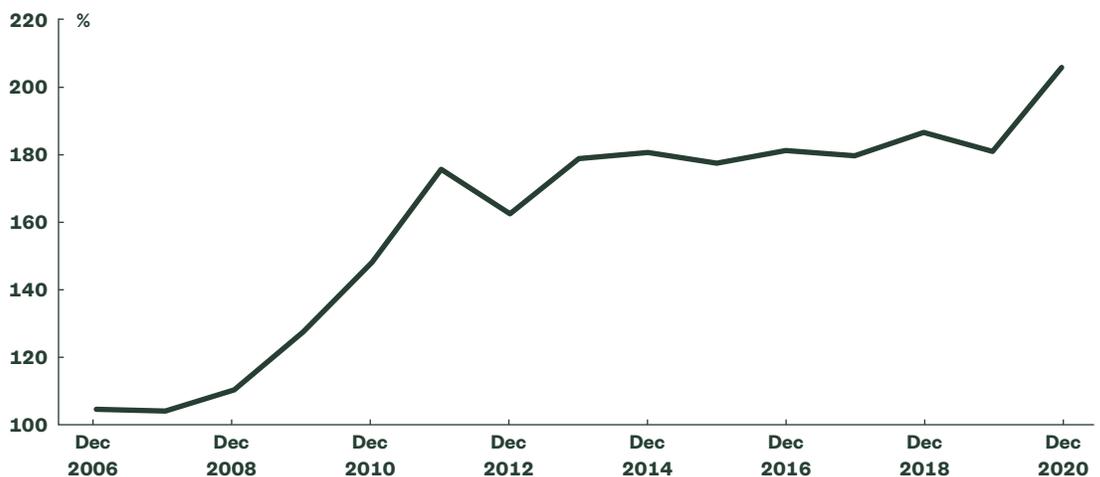
One striking example in the market is Greek sovereign debt. The spread of Greek 10-year yields over German bunds now sits near its narrowest level since 2008 (Figure 1). That's a far cry from the peak in the early 2010s, when the restructuring of debt and the European sovereign crisis saw European sovereign spreads, as well as European bank credit spreads, spiral higher and cause significant tumult in the global credit markets. What's more remarkable is that this spread tightening has occurred while Greece's public debt level has nearly doubled since 2008 (Figure 2).

Figure 1  
**Greece/Germany  
10-year  
Credit Spread**



Source: Bloomberg Data as of 06/24/2021.

Figure 2  
**Greek Government  
Debt as a % of GDP**



Source: Bloomberg Data as of 06/24/2021.

---

It is important to recognize that much of the Greek sovereign debt is held by the official sector, which makes traditional debt/GDP metrics less relevant to markets (apparently). Indeed, with most developed markets' central banks holding large quantities of sovereign debt as part of quantitative easing programs (Fed, Bank of Japan, Bank of England, etc.) one has to wonder whether official sector intervention in government bonds has changed the orthodoxy from the immediate post-GFC years. After the GFC, governments were forced into austerity to prevent sovereign debt stress. Today, with sovereign debt much higher in almost all developed markets countries, but with huge official sector involvement, there seems to be little consideration of sovereign debt risk. In turn, we believe this makes it much easier for fiscal policy to stay much looser post- pandemic than it did post-GFC.<sup>2</sup>

This reality could have profound impacts on economic growth and inflation. As global economic growth heads to multi-decade highs, financial and non-financial companies report strong earnings, and financial volatility continues to track at relatively benign levels, we also must recognize that rising input costs and strong demand are fueling inflation. The medium-term result may be inflation levels that are higher than investors, companies, and consumers are used to. Global central banks continue to promote the idea that current inflationary pressures are largely transitory, and many economists concur, to a degree. However, our own Senior Economist, Simona Mocuta, believes that "the new normal for inflation over the next two years or so will be higher than the prevailing pre-COVID regime".<sup>3</sup>

Ms. Mocuta, and other prominent economists, have noted that the pricing power that companies appear to have now is something that has not existed in many years, and supports the view that inflation could persist longer than it has any time in recent memory. In the US, the National Federation of Independent Business's survey recently showed that a greater percentage of small businesses have raised prices in the past three months and further, a higher share plan to do so in the next three months, more than at any time since the early 1980s.<sup>4</sup>

If Ms. Mocuta is correct, we can see scenarios where current fixed income market complacency can lead to volatility in the future. For example, as of this writing, 10-year US Treasury yields still sit below 1.50%, despite the risk that the combination of strong economic growth and higher inflation will drive those yields materially higher in the near-term. Certainly, a disorderly rise in US Treasury yields over a short period of time could cause material financial condition tightening and have negative impacts on the economic growth trajectory and the current credit cycle.

Despite the risks associated with rising inflation, we'd also opine that a global inflation path that is modestly higher than the post-GFC period could bring with its certain macroeconomic benefits. The risk of deflation was pronounced throughout the post-GFC period, and a modestly higher inflationary path could set the stage for a more balanced and sustainable economic trajectory over the longer term. It is certainly possible that central banks could deliver a smooth transition for the economy, markets, and policy making, with actions that are consistent with support withdrawal that is consistent with developments related to inflation and growth. The Fed began the process, with its governors adjusting its interest rate forecasts, which are more consistent with upgraded forecasts for growth and inflation.

As it pertains to the universe of global banks that make up the majority of our Cash investment universe, there are matters to consider with regard to inflation, in addition to the general reality that banks' financial performance are highly correlated with economic growth and financial conditions. Fundamentally, and with regards to a banks' balance sheet health, higher inflation allows borrowers to pay lenders back with money worth less than it was when originally borrowed, benefitting borrowers. Still, when inflation causes higher prices, the demand for credit increases, which benefits lenders. To summarize, in a below average inflationary environment banks tend

to see higher asset valuations and better asset quality, but lower loan growth and net interest margins. In an above average inflationary environment, the opposite is true. So, while there are positive and negative factors in both scenarios, we continue to take comfort in the demonstrated stability of the fundamental credit profiles of most debt issuers in our global credit research coverage universe through the previous recession. For us that means continuing to select cash investment counterparties that are best equipped to maintain their fundamental credit profiles through a variety of macroeconomic scenarios, including a higher inflation path.

---

## Financial Institutions

### United States

With the US economy rebounding sharply and GDP growth supported by ongoing tailwinds from fiscal and monetary policy, US banks performed well in the second quarter with credit spreads now comfortably inside of pre-pandemic levels. The sector released results this spring that were generally in-line or better-than-expected, benefitting from the release of loan loss reserves built during the highly uncertain 1H20 timeframe. In terms of operating themes, banks felt challenges in net interest income driven by low rates and tepid loan growth offset by stronger fee income sources, particularly in capital markets and mortgage banking. While asset quality trends have continued to be better-than-expected including in weaker segments of the consumer market, the removal of support measures that have bolstered personal income will eventually cause some deterioration. While this should be manageable, there also remains uncertainty in other asset classes including commercial real estate.

From a balance sheet standpoint, fundamentals are strong as it relates to capital, given limited shareholder payouts during the pandemic, and to liquidity/funding, due to large deposit inflows as a result of fiscal and monetary policy. Importantly, the sector remains very well-placed to absorb unforeseen losses as evidenced in June's Comprehensive Capital Analysis and Review results, which was the third significant stress test of large banks conducted by the Fed over the last year. This is likely to foreshadow larger capital returns to shareholders in the near-term, which we are watching carefully.

Looking ahead, support measures will inevitably wind down as the economy stands again on its own two feet. While this could cause concern given the benefits it has had on bank asset quality, we expect authorities will continue supporting the economy if needed. In the meantime, investor attention has shifted from the impacts of COVID-19 towards inflation, asset bubbles and debt sustainability. For banks, the benefits of inflation would be mixed as higher rates support revenues but may also hamper the ability of some borrowers to service their debt. Towards the end of the quarter, the Fed upgraded projections for inflation and GDP over the next year and signaled rate increases in 2023 yet yields in longer dated Treasuries declined. On the regulatory front, we believe that changes to the supplementary leverage ratio will be watched closely in the second half of the year, given the potential for year-end balance sheet pressures from large banks and negative repercussions in the money markets. The Fed has signaled it is working on a solution and leverage capital requirements are meant to be a backstop rather than a binding constraint on bank capital. Regardless of the change, taking some action is very important to the overall market. The Fed is committed to not decreasing the capital strength of banks as a result of any rule change.

---

## Europe

Almost all European banks reported 1Q21 earnings well above consensus estimates. After building up loan loss reserves in 2020, the better economic outlook swung the pendulum in the other direction, allowing banks to incur minimal provisions; or even reverse past charges. This is not sustainable and loan losses will normalize in future quarters. Investment banking activity remains a highlight, but overall pre-provision earnings were poor. Low rates remain a material drag on lending margins, depressing year-over-year revenues by around 20% for many banks. However, managements' full year guidance is still much improved compared to 2020. Even with some re-opening postponements and potential virus variants, there is rising confidence in the 2H21 recovery.

As downside risk and uncertainty decline, banks have reiterated that cost of risk will be much lower in 2021 (but not at the minimal levels seen in 1Q21) with normalization and modestly higher provisioning for upcoming quarters. Overall, 2021 is set to be an internal investment and rebuilding year. Europe is recovering but at a lag to other major regions. Banks are set to mirror this and require more robust economic growth and rate hikes to fully achieve their earnings potential. In the meantime, they are focused on expense control, bolt-on purchases, and divestures to try and boost shareholder returns.

## Canada

Canadian banks continue to demonstrate resiliency in operating fundamentals as the macro environment improves. During the past quarter, the major banks reported strong results from a credit standpoint reflecting modest loan growth, significant excess capital, resilient asset quality and strong business line diversification across retail/commercial banking, wealth, insurance and capital markets. While Canada is trailing the US in vaccine distribution, the pandemic has done little to shake the resilient reputation of the sector, which is valued at a premium in both debt and equity markets. Note, this is despite the initial knee-jerk reaction in credit market when energy prices collapsed at the start of the pandemic. Looking ahead, the easing of COVID-related restrictions should drive pent-up demand to feed through to the broader economy and will be supportive of the sector.

The strong monetary, fiscal and regulatory support of authorities has been a key story this cycle. While the eventual tapering of income support could cause concern around a fiscal cliff, additional support would be forthcoming as needed. We believe that this is important given that the private sector debt dynamics that existed in Canada pre-pandemic remain in place today. Indeed, questions around the operating environment and private sector debt has caused Fitch to maintain a negative outlook on the banks. As well, the country's regulator recently announced an increase in its Domestic Stability Buffer capital add on to 2.5% of risk-weighted assets up from 1%. While this is not entirely surprising since the buffer was 2.25% prior to the pandemic, it also reflects cautiousness from authorities around financial stability risk and foreshadows higher bank capital distributions. The latter could drive banks decide to pursue potential mergers and acquisitions in the US, which we view as possible.

---

## Australia

Even as Australia experienced its first recession in nearly three decades during 2020, it has generally outperformed other developed nations this cycle. The Royal Bank of Australia expecting to see nearly all pandemic-related loss in the labor market recovered by mid-2022. While the banking sector has become an even bigger political topic in the years following the Royal Commission, it has built significant goodwill during the crisis in supporting the economy and acting as a de-facto agent of government policy. The Big 4, which have spent the past several years retrenching back to their domestic (AUS/NZ) markets, have so far emerged from the crisis relatively unscathed. This was illustrated in the half-year results of a handful of major and regional Australian banks reported this quarter, which illustrated continued resilience. Looking ahead, revenue generation is likely to become more challenged given low rates, but Australia's oligopolistic market structure supports profitability with net interest margins still healthy and efficiency as a focus. From a balance sheet standpoint, strong liquidity and capital put the banks in a good spot to withstand top line pressures. Indeed, it can be argued that the sector is in its strongest position ever as it relates to loss absorbency.

For banks, we believe that de-risking efforts via macroprudential policies, the onboarding of new capital rules and a renewed emphasis on risk appetite due to recent mishaps (Royal Commission, anti-money laundering-related issues) was well-timed going into this downturn. Though considerable policy support was integral in the economy's V-shaped recovery and there could be eventual consternation around declines in income support, we ultimately expect a gradual reduction with authorities readying incremental assistance if needed. We believe that this could result in incremental asset quality deterioration but that it should remain manageable. More positively, the Australian housing market, which is a focal point of bank balance sheets and the broader economy, has benefitted from the improvement of consumer balance sheets and the recent rebound of prices. Looking ahead, we also watching risks around commercial real estate and any fraying in Australia's trading relationship with China.

## Asia

While Japan had relative success containing the virus, is has been playing catch-up with the vaccine rollout for some time and the economy fared worse than expected in Q121, pushing out the recovery. More positively, recent signs of improvement have emerged in the rollout which could drive a more broad-based economic reopening. Benefits from hosting the Olympic games should also provide a boost to the economy. Under this backdrop, major banks continue to have good capitalization and benefit from sovereign support, but the operating environment is challenged by low/negative rates (now two decades), a declining population, overbanking and structural challenges in reducing costs. The banks are also struggling to shift retail clients to a digital environment. A gradual tapering of securities' gains is yet another headwind, though it does provide a nice contingent capital.

Major Japanese banks reported their FY22 results this past quarter, which were relatively in-line with expectations. While top-line growth was supported by markets-related businesses and net interest income growth, return on equity remains anemic in the 5% to 6% range. Positively, credit costs have been lower than expected. Looking ahead, FY22 guidance calls for growth in profitability with asset quality deterioration likely manageable. Given weaker trends domestically, overseas loan growth is likely to be a focus, particularly in faster growing Southeast Asian countries. The upshot is that megabank international exposures are typically oriented towards larger corporate borrowers and that the banks do relatively little card and unsecured consumer lending.

Figure 3  
**Structured Finance**  
**Asset-backed Securities**  
**(ABS) — US**

Asset Type (in millions)	YTD 2021	YTD 2020	Δ%
Credit Cards	3.8	2.3	65.2
Autos	64.0	48.9	30.9
Student Loans	9.5	8.2	15.9
Equipment	10.5	6.5	61.5
Floorplan	0.0	0.4	-100.0
Unsecured Consumer	7.2	3.1	132.3
Other	23.2	7.8	197.4
<b>Total</b>	<b>\$118.2</b>	<b>\$77.2</b>	53.1

Source: JPM BAS Weekly Volume Data Sheet; 06/18/2021.

Figure 4  
**US Consumer ABS Credit**  
**Spreads (in bps)**

	As of 06/18/2021	As of 12/31/2020	Δ
2 Yr AAA Auto	5	7	-2
2 Yr AAA Credit Card	1	3	-2

Source: JPM Research- ABS Weekly Spreads; 06/18/2021.

2021 year-to-date total is \$118.2 billion compared to \$77.2 billion and \$116 billion over the same time period in 2020 and 2019, respectively. However, the 2020 figures were heavily impacted by the COVID-19 disruption, so a comparison to 2019 may be more apt. ABS (particularly at the senior part of the capital structure) continues to receive strong execution in the primary market, as evidenced from deal upsizing and final spreads printing through initial guidance.

Consumer credit performance continues to exhibit strength across ABS asset classes. Total delinquencies (30+ days) for the JP Morgan's ABS bankcard index tracked 0.9% for May, the lowest print on record for the index, with all issuers reporting month-over-month improvements. Net charge-offs also recorded an all-time low at 1.65% for May, a sequential monthly improvement of 5 bps. The payment rate also came in at a record high of 36.3%, building on momentum from US stimulus check and tax refunds.<sup>5</sup>

---

**Non-Financial**  
**Corporate/**  
**Industrial — Global**

The US investment grade (IG) bond market has seen negative credit ratings momentum this year, with net downgrades of \$205 billion year-to-date. However, unlike last year, 2021's downgrade volume has been driven primarily by higher quality issuers, with single-A or better companies seeing net downgrades of \$206 billion. During 2020, downgrades were concentrated mostly in Manufacturing and Energy corporations, but 2021 negative ratings momentum has been focused in higher rated Energy and Technology corporations. The downgrade of Oracle's \$63 billion debt-stack (from low-to mid-single-A, to high-BBB) was the largest of this year after the company issued \$15 billion of new debt in a leveraging transaction. Several the world's largest Integrated Energy companies had ratings cut earlier this year as well, as the sector faces headwinds related to green initiatives and heavy debt loads. Looking forward, the sectors with the highest concentration of issuers on watch for upgrade are Technology and Healthcare, while the Gaming/ Lodging and Manufacturing have the highest percentage of negative rating watches.<sup>6</sup>

While overall leverage levels of non-financial IG corporate debt remain elevated (especially for US companies), we would note that there are some factors related to the term structure of debt that are mitigating some risks associated with the leverage. Since 2001, firms have termed out their debt as evidenced by the secular decline in the short-term debt to total debt ratio (even excluding financial companies). The incentives provided by low interest rates and bond market liquidity are driving this secular decline. Terming out debt reduces the sensitivity of the balance sheet to changes in interest rates. On the demand side, global liquidity, and lower bond returns in Europe, have meant an increase in the demand for US corporate debt as investors seek yield. While the secular trend in the ratio of short-term to total debt has declined since 2001, there is also a cyclical pattern where short-term debt rises in the early phase of an economic recovery (1993–1999, 2004–2006, 2010–2012) and then resumes its secular downward trend. With regard to non-financial corporate capital levels, we'd also note that the corporate debt to the market value of equity has declined steadily since 1982 with short periods of reversal during periods of equity market corrections (1987) and the recessions of 2000–2003 and 2007–2009. The latest data indicate that the current ratio of debt to equity is low relative to history, partly mitigating risks posed by high absolute levels of corporate debt.<sup>7</sup>

2021 remains on pace to set a new annual record for announced M&A, as the V-shaped recovery that began in 3Q20 has not slowed. Strong economic growth, improved CEO confidence and well-capitalized buyers are motivated to diversify their business models and gain scale, all driving the M&A appetite. On the private-equity sponsor side, dry powder (capital available for deployment) is at historically high levels. While we remain mindful for signs of active balance sheet re-leveraging from the corporate universe, so far, the takeaways from the ongoing M&A wave have been manageable for bondholders. For example, the funding mix of the 1H2021 strategic M&A has been favorable in aggregate, as evidenced by a lower share of all-cash (debt) funded deals, and a higher share of all-equity transactions, both relative to the post-GFC era.<sup>8</sup>

---

## Endnotes

- |  |  |
|--|--|
| <p>1 Morgan Stanley Research; "What's Next in Global Macro: The Paradigm Shift"; 06/13/2021</p> <p>2 Deutsche Bank Research; Cross Discipline Thematic Research; DB CoTD: "When Debt Doesn't Matter" 05/26/2021</p> <p>3 <a href="https://ssga.com/us/en/institutional/ic/insights/gmo-a-kernal-of-caution-in-a-robust-recovery">https://ssga.com/us/en/institutional/ic/insights/gmo-a-kernal-of-caution-in-a-robust-recovery</a></p> <p>4 <a href="https://ssga.com/us/en/institutional/ic/insights/pricing-power-helps-fuel-inflation-spike">https://ssga.com/us/en/institutional/ic/insights/pricing-power-helps-fuel-inflation-spike</a></p> <p>5 JP Morgan Global Securitized Products Research; Asset-backed Securities; 06/18/2021</p> | <p>6 Credit Suisse Credit Strategy Daily Comment; 05/26/2021</p> <p>7 John E. Silvia Dynamic Economic Strategy; "The Financial Status of the Non-financial Sector"; 06/16/2021)</p> <p>8 Goldman Sachs Credit Strategy Research; Global Markets Daily; The Ongoing M&amp;A Wave: Largely Manageable for Bondholders 06/16/2021</p> |
|--|--|

## About State Street Global Advisors

Our clients are the world's governments, institutions and financial advisors. To help them achieve their financial goals we live our guiding principles each and every day:

- Start with rigor
- Build from breadth
- Invest as stewards
- Invent the future

For four decades, these principles have helped us be the quiet power in a tumultuous investing world. Helping millions of people secure their financial futures. This takes each of our employees in 31 offices around the world, and a firm-wide conviction that we can always do it better. As a result, we are the world's third-largest asset manager with US \$3.59 trillion\* under our care.

\* This figure is presented as of March 31, 2021 and includes approximately \$60.33 billion of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.

## ssga.com

### Information Classification: General

### State Street Global Advisors Worldwide Entities

**Abu Dhabi:** State Street Global Advisors Limited, ADGM Branch, Al Khatem Tower, Suite 42801, Level 28, ADGM Square, Al Maryah Island, P.O. Box 76404, Abu Dhabi, United Arab Emirates. Regulated by the ADGM Financial Services Regulatory Authority. T: +971 2 245 9000.

**Australia:** State Street Global Advisors, Australia, Limited (ABN 42 003 914 225) is the holder of an Australian Financial Services License (AFSL Number 238276). Registered office: Level 14, 420 George Street, Sydney, NSW 2000, Australia. T: +612 9240-7600 F: +612 9240-7611.

**Belgium:** State Street Global Advisors Fosbury & Sons Chaussée de La Hulpe, 185 B-1170 Watermaal-Boitsfort, Belgium. T: 32 2 663 2036. F: 32 2 672 2077. SSGA Belgium is a branch office of State Street Global Advisors Ireland Limited. State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Canada:** State Street Global Advisors, Ltd., 1981 McGill College Avenue, Suite 500, Montreal, Qc, H3A 3A8, T: +514 282 2400 and 30 Adelaide Street East Suite 800, Toronto, Ontario M5C 3G6. T: +647 775 5900. **France:** State Street Global Advisors Ireland Limited, Paris branch is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number

145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Paris Branch, is registered in France with company number RCS Nanterre 832 734 602 and whose office is at Coeur Défense - Tour A - La Défense 4 33e étage 100, Esplanade du Général de Gaulle 92 932 Paris La Défense cedex France. T: (+33) 1 44 45 40 00. F: (+33) 1 44 45 41 92. **Germany:** State Street Global Advisors GmbH, Brienner Strasse 59, D-80333 Munich. Authorized and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"). Registered with the Register of Commerce Munich HRB 121381. T: +49 (0)89-55878-400. F: +49 (0)89-55878-440. **Hong Kong:** State Street Global Advisors Asia Limited, 68/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. T: +852 2103-0288. F: +852 2103-0200. **Ireland:** State Street Global Advisors Ireland Limited is regulated by the Central Bank of Ireland. Registered office address 78 Sir John Rogerson's Quay, Dublin 2. Registered Number: 145221. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300. **Italy:** State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano) is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano), is registered in Italy with company number 10495250960 - R.E.A. 2535585 and VAT number 10495250960 and whose office is at Via Ferrante Aporti, 10 - 20125

Milano, Italy. T: +39 02 32066 100. F: +39 02 32066 155. **Japan:** State Street Global Advisors (Japan) Co., Ltd., Toranomon Hills Mori Tower 25F 1-23-1 Toranomon, Minato-ku, Tokyo 105-6325 Japan. T: +81-3-4530-7380. Financial Instruments Business Operator, Kanto Local Financial Bureau (Kinsho #345), Membership: Japan Investment Advisers Association, The Investment Trust Association, Japan, Japan Securities Dealers' Association. **Netherlands:** State Street Global Advisors Netherlands, Apollo Building, 7th floor Herikerbergweg 29 1101 CN Amsterdam, Netherlands. T: 31 20 7181701. SSGA Netherlands is a branch office of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Singapore:** State Street Global Advisors Singapore Limited, 168, Robinson Road, #33-01 Capital Tower, Singapore 068912 (Company Reg. No: 200002719D, regulated by the Monetary Authority of Singapore). T: +65 6826-7555. F: +65 6826-7501. **Switzerland:** State Street Global Advisors AG, Beethovenstr. 19, CH-8027 Zurich. Registered with the Register of Commerce Zurich CHE-105.078.458. T: +41 (0)44 245 70 00. F: +41 (0)44 245 70 16. **United Kingdom:** State Street Global Advisors Limited. Authorized and regulated by the Financial Conduct Authority. Registered in England. Registered No. 2509928. VAT No. 5776591 81. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350. **United States:** State Street Global Advisors, 1 Iron Street, Boston, MA 02210-1641. T: +1 617 786 3000.

### Important Information

The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security.

It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor. All material has been obtained from sources believed to be reliable. There is no representation or warranty as to the accuracy of the information and State Street shall have no liability for decisions based on such information.

The whole or any part of this work may not be reproduced, copied or transmitted or any of its contents disclosed to third parties without SSGA's express written consent.

This document may contain certain statements deemed to be forward-looking statements.

Please note that any such statements are not guarantees of any future performance and that actual results or developments may differ materially from those projected in the forward looking statements.

© 2021 State Street Corporation.  
All Rights Reserved.  
ID594402-3653752.1.2.GBL.INST 0621  
Exp. Date: 07/31/2022