

Credit Research Update

Peter Hajjar

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

For much of the third quarter, global risk assets registered positive momentum. While exceptionally easy central bank policy was certainly a driving factor for this performance, recent economic data has also continued to surprise to the upside. Our base case is that second quarter 2020 will mark the trough of economic activity, and while initial third quarter global economic data releases suggest a robust start to the recovery, the path to full recovery will likely be more gradual for most economies. Even the more optimistic Wall Street forecasters don't expect the global level of output to return to pre-pandemic levels until mid-2021, and almost all forecasters expect material differences with the pace of the recovery between regions.

With regard to risk-asset and capital market performance, going forward, we feel that the combination of monetary policy accommodation and continued, positive momentum in global economic data is required to limit volatility. As we've noted in our last Credit Research Update, central bank involvement has been unprecedented and it is unlikely that the direction will change given the decisively positive results for financial conditions. However, economic momentum is not guaranteed, given the continuance of the pandemic and ongoing geopolitical uncertainty (US Elections, Brexit, global trade tensions, etc.). In this context, we believe that continued fiscal support from governments is essential if a V-shaped recovery is to take hold. In last quarter's Credit Research Update, we detailed how significant, and unprecedented, the fiscal stimulus impulse has been in most developed economies since March. This fiscal transfer has replaced a significant portion of the lost income due to the pandemic in economies and helped support the recovery in major portions of the global economy (even for big-ticket purchases, such as homes and automobiles). However, in the near-term several major economies will be faced with the challenge of sustaining the growth recovery with reduced levels of fiscal support. That process has already begun in the US, as enhanced unemployment benefits have begun to diminish and Congress has failed to pass additional support for state and local governments. The UK has also begun to unwind its furlough program, while Germany and France have extended their full employment support programs well into the future. We've now entered a stage in the global economic recovery where the easy gains have been made and the path forward is likely to be variable and volatile. Without an extension of the unprecedented level of fiscal support at the outset of the pandemic, many economies will need to hit the reset button to align with lower income, output and higher rates of unemployment, and all that those entail.

Through the first six months of the pandemic, many large banks and financial institutions in our Global Cash investment universe benefitted from income windfalls associated with capital markets businesses and loan growth associated with credit line drawdowns. These windfalls have allowed many banks to absorb elevated credit costs and remain profitable year-to-date, while also building incremental loan loss absorbency. This has been a positive story for bank credit fundamentals, relative to our expectations in March and April, but we have to be mindful that massive government stimulus has played a critical role in this story. These include:

- enhanced unemployment benefits
- small- and medium-sized enterprise assistance and loans
- rate cuts
- payment holiday plans
- central bank lending recovery funds

While the environment is improved, we remain of the view that there are still capital costs to be allocated on economies and in credit markets. Some are obvious — cruise ships and certain retailers — but we also believe there will be damage to broader swaths of the credit markets, even if the damage is limited to credit profile deterioration (ie: credit rating downgrades). Fiscal and monetary stimulus can only paper over so much of the damage and at this stage of the cycle, with a pandemic backdrop still clouding the crystal ball, we prefer to make conservative assumptions. As a credit research team, we are not assuming a V-shaped recovery in the global economy, and in the context of the Global Cash investment universe, we favor banks that have provisioned for loan losses in a conservative manner. Through two quarters of bank earnings during the pandemic, we've observed evolving strategies and interpretations from banks with regards to loan-loss provisions. In general, the US, UK, Australian and Canadian banks in our investment universe that have taken large provisions, and conservative assumptions associated with those provisions, give some confidence that credit losses will not materially burden fundamental credit profiles going forward. Some of the banks that elected not to take material incremental provisions in the first quarter of 2020, or used inaccurate gross domestic product (GDP) estimates, corrected this with heavy provisions in the second quarter. Still, some European banks have been less conservative in provisioning and are likely only delaying this eventual loss recognition while exposing themselves to modest credit profile deterioration in the future. However we'd emphasize that despite this vulnerability, the European banks on our approval list are much better equipped to deal with a period of prolonged macroeconomic weakness than they were — even a few years ago — exemplified by the fact that the European Central Bank's published vulnerability assessment analysis concluded that its banks are “resilient,” although not strong enough to pay dividends to equity holders.¹ Even excluding the COVID-19 impact, European bank profitability is structurally challenged, with significant headwinds from the perpetual negative rate environment. This challenge will limit the capability for credit profile improvement, even if capital strength limits the probability of material credit profile degradation in the short-term.

Financial Institutions

United States

Despite a challenging third quarter operating environment including a lower-for-longer-rate backdrop, bank credit spreads tightened with the overall market as green shoots emerged across various macroeconomic indicators, benefitting FY20 growth forecasts. While market volatility increased later in the quarter, risk assets rallied as optimism grew. However, this positive sentiment has been tempered by the re-emergence of several virus waves, uncertainty about a potential vaccine, an uneven pace of reopening and a stressed operating backdrop for several business sectors. As banks continue to have limited visibility, caution has prevailed and lending standards have tightened. Still, every incremental data point improves clarity around fundamentals including a surprise drop in unemployment to 8.4% in September. This level is already below what most banks had expected would prevail at year-end and could bode well for near-term reserves and earnings.

Earnings for the second quarter 2020 were strained by margin compression and elevated provisions, which fell from their first quarter peak, partially offset by mortgage banking and capital markets income. From a credit standpoint, liquidity levels improved and regulatory capital rebounded as share repurchases were curtailed and the impact of corporate bank line draws reversed. Looking ahead, actual credit losses may take until 2021 to peak as deferrals and government programs are tapered. However, to this point the pain for banks has been largely front-loaded under new life-of-loss accounting standards and the sector has digested credit costs while remaining widely profitable. In our view, this speaks to the sector's recession readiness coming into this downturn as influenced by post-Global Financial Crisis (GFC) changes to curb risk appetite and improve risk management, including Comprehensive Capital Analysis and Review (CCAR).

As it relates to CCAR, results from the 2020 stress test illustrated the capital strength of the US banking sector but also showed that some of Federal Reserve's (Fed) most severely contemplated outcomes could be challenging for certain banks. Additional stress testing is expected later this year. In our view, the impact of weakening asset quality on bank capitalization is the biggest unknown this cycle, especially given the Fed's role in stabilizing capital markets. While recent asset quality trends have been mixed, the consumer sector has been outperforming and we believe commercial real estate could have the biggest surprise potential for loan losses moving forward. In the consumer sector, future government stimulus is a major wild-card as it relates to future loss curves. Still, the willingness and ability of the government to keep printing should not be overlooked as a bridge to a post-virus economy.

Europe

Relative to the first quarter earnings season, the macro picture has improved. As lock-downs and re-openings have progressed, the degree of uncertainty has diminished, with a base case that the second quarter was the economic trough and activity will recover. This has been made possible by massive government stimulus. These include:

- enhanced unemployment benefits
- small- and medium-sized enterprise assistance and loans
- rate cuts
- payment holiday plans
- central bank lending recovery funds

For second quarter earnings, resilient fixed income, commodities and currency (FICC) revenues helped banks to avoid even larger net losses. Together with corporate draw-downs ceasing and the relaxation of regulatory rules (such as SME weights), capital ratios were kept stable during the quarter. UK banks incurred impairment losses far in excess of others, which they attribute to applying more conservative interpretations of IFRS9 accounting rules and Stage 2 loans. Such action is indicative of UK banks preferring to take the provision hit upfront, as some other European banking sectors may be only delaying this eventual loss recognition. Management at most banks are optimistic that loan losses have peaked. Even if true, the rate cuts are still a headwind that will weigh on future earnings.

Overall, the worst-case scenario for banks was averted in the second quarter due to enormous government support. Economic forecasts moderately improved. Oil and market values partially recovered. Bank management is confident that provisions have peaked. However there is downside risk if the economic recovery falters and is slower-than-expected. Top-line revenue will also face more significant challenges in 2H20, as FICC conditions normalize while low rates continue to cut into banks' margins. So while a solvency crisis has been avoided, we expect European banks' profitability to continue to lag other regions.

Canada

Canadian banks reported fairly resilient underlying results in late August. Net earnings fell substantially from the prior year but largely beat consensus estimates. Weaker trends were particularly evident in domestic retail banking on the back of lower interest rates and slower loan growth, but core pre-tax, pre-provision earnings advanced year-over-year behind fee income momentum and cost control. Indeed, underlying trends were similar to US peers as a strong results in capital markets, and to a lesser extent wealth management, helped to partially offset softer results elsewhere. While to a lesser of a degree than US G-SIBs, we believe that the diversification provided from capital market businesses is an important constituent of Canadian bank credit profiles and has proven its worth-to-date despite its introduction of greater volatility and market risk.

From a credit standpoint, bank capital ratios rebounded, liquidity improved and asset quality showed mixed trends. Canadian banks continue to trade amongst the tightest of global banking sectors in credit markets and have outperformed similar peers in equity markets. This reflects perceived defensive attributes as informed by outcomes during the GFC and a high skew to low-risk residential mortgages. Additionally, Canada has outperformed the US recovery to date, both in terms of virus containment and employment. While it is too soon to signal the all-clear, given elevated unemployment, high private sector leverage and the chance for the downturn to extend, recent trends and economic data have been positive.

Looking ahead, questions remain around the removal of government support and bank deferrals. Positively, the recent appointment of a new Finance Minister and comments from authorities suggest additional stimulus could be forthcoming to support the recovery. With respect to deferrals, the upcoming quarter will be where the rubber-meets-the-road for banks and borrowers with recent commentary suggesting good trends on clients coming off deferral. On asset quality, while commercial clients are so far feeling pain to a greater degree than consumers, consumer loans appear to be a greater risk given debt burdens going into the downturn.

Australia

One of the largest Australian banks reported its half-year results in the third quarter, while other banks provided trading updates. Results were generally on par with expectations, the greatest attention paid to deferral data, similar to other jurisdictions, and capital levels, which generally improved in a reversal of headwinds from earlier this year. Banks have announced that they are allowing mortgage deferrals to be extended through March 2021 on a case-by-case basis, which should further help borrowers. Banks appear acutely focused on capital and the potential for risk weight asset inflation with some selling non-core assets or reportedly looking to do so. Note that this is despite capitalization being top-quartile on a global basis, pointing to the conservativeness of the regulatory regime. Unfortunately, the re-emergence of the virus in Melbourne and to a lesser degree in New Zealand resulted in extended shutdowns and put a damper on prior outperformance in health and GDP outcomes relative to other regions. Looking ahead, revenues remain under considerable pressure for the major Australian banks given over 80% of the top line is net interest income and that rates have been trending lower.

The Australian policy response to COVID-19 is helping to mitigate disruption to the domestic economy but the combination of lower margins, higher loan losses and rising capital intensity from loan downgrade are risks. Amongst these, loan losses are of the greatest concern to creditors with particular attention paid to mortgages, the largest asset class, as well as commercial real estate, which historically has had the largest loss content. Positively, banks have strong loss absorbing resources between core earnings, excess capital and loan loss reserves to combat losses. As well, prior concerns around a late-September “fiscal cliff” have turned to a “fiscal bridge” through 2021. Though not all plans around tapering support programs are known, there has been a strong coordinated approach with banks. Positively, government support for banks remains intact including the Term Funding Facility, which was recently extended through mid-2021. Unlike the GFC, there are no significant concerns around liquidity and offshore wholesale funding from the Australian banks this cycle.

Asia

For the Japanese megabanks, challenging quarterly results as the unrelenting headwinds of an ultra-low rate environment further hampered by rising credit costs. We expect these should remain in place for some time as accommodative monetary policy continues. While provision levels were the primary takeaway from results with different levels of conservativeness evidenced across the lenders, some banks reported strong results in trading and capital markets facing businesses as a partial offset. Still, other noninterest income sources including investment gains and equity income from affiliates will be challenged to grow fast enough to offset declines in net interest income going forward. One positive side effect the pandemic may have created is an impetus for more drastic cost reductions by banks (they have historically been hindered by industry practices and as a result bloated efficiency ratios), the continuation of ultra-low rates could push the megabanks to once again accelerate overseas expansion, which may be negative.

Looking ahead, structural profit challenges faced by major Japanese banks are offset by satisfactory capitalization and sovereign support implications. While this support is embedded in credit ratings, it also means that the banks face downgrade risk linked to the sovereign, which must be monitored. Positively, bank capital resilience was confirmed in a Bank of Japan stress test reported earlier this year, with capital levels also benefiting from a large pool of unrealized gains on investment securities (which are often excluded in adjusted figures). This increases market risk but provide a nice contingent resource against future losses. This cycle international loan books are likely to determine relative fundamental performance. In our view, the upshot is that megabank international exposures are typically oriented towards larger corporate borrowers and that the banks do relatively little credit card and unsecured consumer lending.

Figure 1
**Structured Finance
 Asset-backed Securities
 (ABS) — US**

Asset Type (in millions)	YTD 2020	YTD 2019	Δ%
Credit Cards	\$2.5	\$17.7	-85.9
Autos	68.3	79.2	-13.8
Student Loans	12.7	10.0	27.0
Equipment	10.3	11.1	-7.2
Floorplan	1.4	7.5	-81.3
Unsecured Consumer	5.8	8.7	-33.3
Other	20.9	24.2	-13.6
Total	\$121.9	\$158.4	-23.0

Source: JPM BAS Weekly Volume Data Sheet; 09/11/2020.

Figure 2
US Consumer ABS Credit Spreads (in bps)

	As of 09/11/2020	As of 03/19/2020	Δ
2 Yr AAA Auto	14	200	- 186
2 Yr AAA Credit Card	10	180	- 170

Source: JPM Research — ABS Weekly Spreads; 09/11/2020.

Given the pandemic's impact on US car buying, consumer lending and consumer spending, particularly during March and April, it is not surprising that 2020 primary market issuance activity has been materially lower on a year-over-year basis. However, issuance pace has picked up since April. Driven by the extraordinary level of support made available by the Fed to debt capital markets, US ABS spreads have now walked back all of the spread widening experienced during the March market crash, and are trading at year-to-date tightness for vanilla asset classes (auto, credit cards, etc.). More esoteric asset classes (student loans, equipment, consumer installment loans, etc.), as well as other securitized products (CMBS) are still trading at a modest premium to pre-pandemic levels.

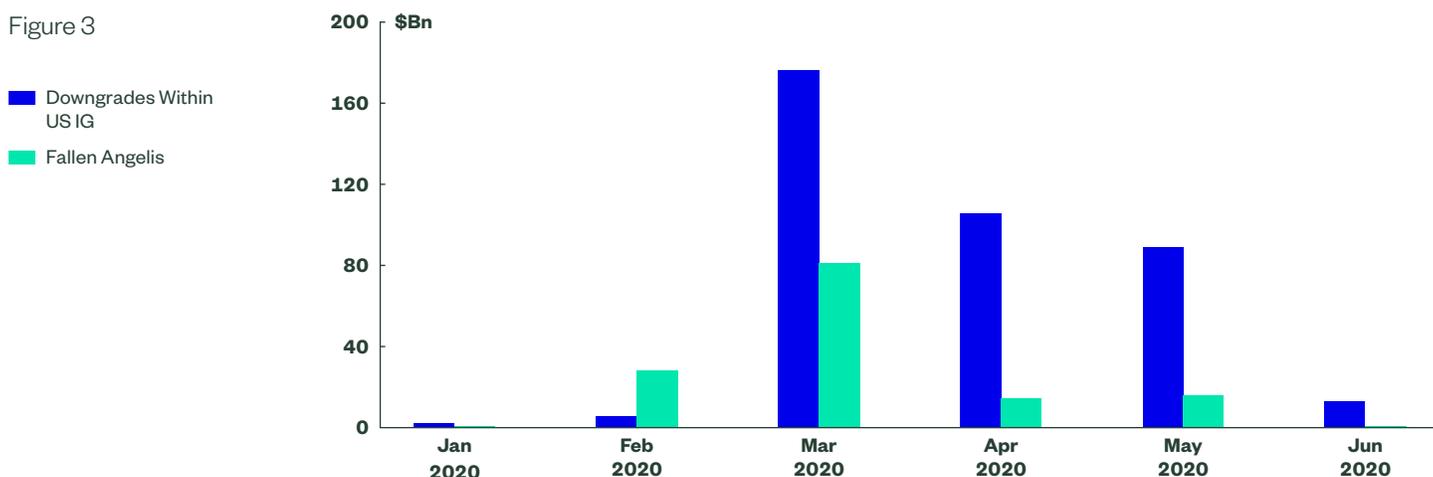
Material shifts in household spending and borrowing patterns typically accompany recessions, but the current pandemic has produced some surprises. The strength of housing and auto markets during the pandemic is somewhat unexpected but could also be attributed to supply disruptions and changing priorities. Many consumers now view their home and vehicle as extended forms of personal protective equipment. US consumers entered the pandemic in good shape, having restructured debt after the GFC, elevated the savings rate and reduced household debt service ratios by 17% from the crisis peak. The household debt service ratio amounted to 15.02% as of the first quarter of 2020, up from the lowest point in late 2014, yet still near the lowest level of the 40-year period from 1980 to 2020.² Nonetheless, rapid fiscal and monetary stimulus have helped households to bridge unemployment. Some 10% to 15% of borrowers in auto ABS pools sought extensions early on, but these have already begun to decline as more consumers return to work. ABS pools are key sources of current data about how households are faring in the pandemic.

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

US investment-grade (IG) companies have issued record amounts of debt through July 2020 (\$1.47 trillion of new issue; +88% year-over-year) to secure cash on their balance sheets and stave off liquidity issues due to COVID-19-related shutdowns. Historically, leverage ratios tend to rise going into recessions due to declining operating cash flows and COVID-19 has accelerated this trend. Under other circumstances, credit spreads would typically widen as investors view increased leverage as credit-negative. However, in the context of a global pandemic, investors have seemingly spent time pondering details related to the ratios- and credit spreads have certainly not reflected investor angst for US IG credit. In general, corporate debt levels rose due to record levels of issuance in order to add more cash to balance sheets, making companies better able to withstand high industry and operating uncertainties in the short- and medium-term. Looking over a longer time horizon to solvency related issues, higher leverage will likely have some negative ramifications down the road, but the priority is for companies to stay afloat until then. History has shown companies tend to de-lever coming out of recessions, as they did in 2002 and 2010. We expect the same once a sustained recovery from COVID-19 is underway.³

The downgrade picture is another reflection of deteriorating fundamentals and a challenging outlook for IG credit. Fallen angels (downgrades from investment grade to high-yield) and downgrades within US IG rose sharply in March but have been trending materially downward since then.

Figure 3



Source: JP Morgan, State Street Global Advisors as of 06/30/2020.

However, we'd caution that a fair amount of uncertainty around downgrades remain for the rest of 2020 and beyond. Recessionary environments leave scars on credit quality but agencies appear to be pushing out decisions until more clarity emerges on the path of the pandemic. However, there is a growing pipeline of potential downgrades: \$2.7 trillion of US bond index paper is currently marked with a "negative-outlook" or "downgrade-watch" by one of the three major agencies.⁴

Moving over to the European market, we'd note that leverage among European corporates rose to a historic high of more than 3.2x (net) in H1 2020, as the pandemic lockdowns weighed earnings down. However, there is some disparity by industry and the largest increases in leverage occurred in energy, basic resources, industrials, cyclicals and consumers. Encouragingly, the biggest increases tended to be where the starting level was lowest — both at the sectoral and at the individual company level.⁵

Across the globe, the capital management strategies of IG-rated corporate borrowers remain closely watched given the record-shattering new issue volumes this year. Leverage metrics were already stretched prior to the pandemic, so additional debt burdens will continue to be scrutinized. Given the still-uncertain backdrop non-financial corporations are still operating conservatively, keeping more cash than usual on hand. In order to reduce refinancing risk over the next few years (also a longer time horizon than is typical), many have taken actions such as issuing long-term debt and tendering for short-dated maturities. Importantly, most have also stated that it was premature to restart large-scale buyback programs. That said, there were some indications that the posturing in 2H2020 could shift to a modestly more aggressive stance. For example, some of the benefits from cost cutting implemented in 1H2020 (delayed capex, furloughed workers) will reverse as those expenses come back online. Additionally, the focus on mergers and acquisitions and business development was also mentioned repeatedly among biopharma firms.⁶ In our view, corporate financial policy scrutiny will become increasingly important for credit analysts, as corporate sectors and geographic economies potentially diverge in recovery paths. If financial conditions remain exceptionally accommodative, markets may not punish issuers that begin to take a more aggressive financial policy stance, so it will be up to analysts (and perhaps credit rating agencies) to cast light on the path of corporate credit profile differentiation.

Endnotes

- 1 “Euro area banking sector resilient to stress caused by coronavirus, ECB analysis shows,” European Central Bank 28 Jul 2020, Bloomberg.
- 2 Citi Research; Securitized Products; Consumer ABS Weekly; 08/06/2020.
- 3 State Street Global Advisors; Insights: Fixed-Income; 09/09/2020.
- 4 Citi Research; US High Grade Credit Strategy/Market Dashboard; 09/11/2020.
- 5 Citi Research; European Credit Focus; 09/11/2020.
- 6 Goldman Sachs Credit Research Strategy; Credit Notes; 09/08/2020.

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 28 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 \$3.05 trillion* under our care.

* This figure is presented as of June 30, 2020 and includes approximately \$69.52 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

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 Belgium, Chaussée de La Hulpe 120, 1000 Brussels, 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 Immeuble Défense Plaza, 23-25 rue Delarivière-Lefoullon, 92064 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, Briener 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. Telephone: 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. Authorized and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). 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. 577659181. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350.

United States: State Street Global Advisors, One 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.

© 2020 State Street Corporation.
All Rights Reserved.
ID305493-3252150.1.GBL.RTL 0920
Exp. Date: 10/31/2021