

Large Angels Fall Harder but Bounce Higher

Bradley Rogoff, CFA
+1 212 412 7921
bradley.rogoff@barclays.com
BCI, US

Rizwan Hussain
+1 212 412 7997
riz.hussain@barclays.com
BCI, US

Scott Schachter
+1 212 526 9716
scott.schachter@barclays.com
BCI, US

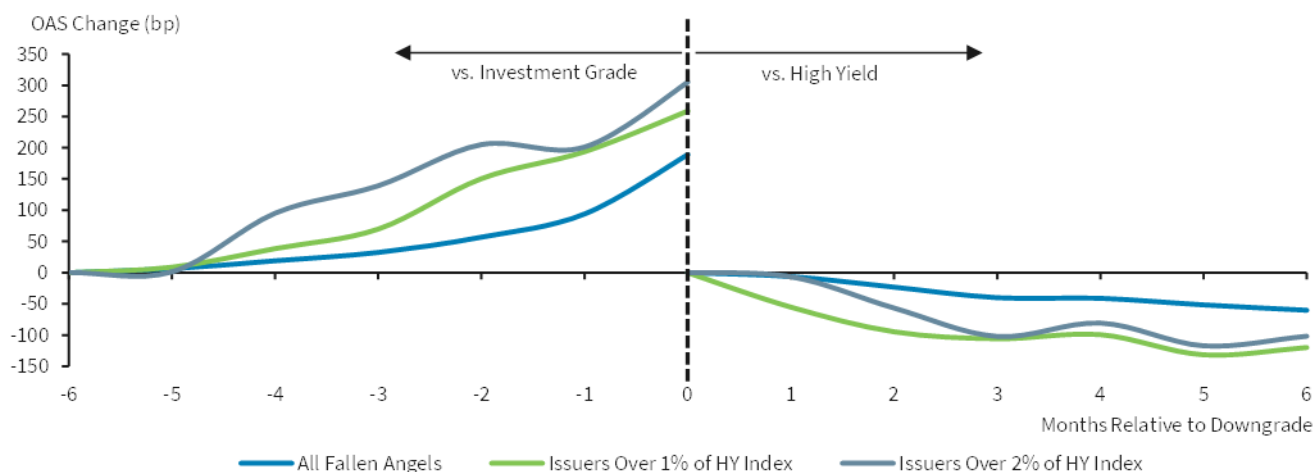
We continue to expect fallen angel volumes for 2019 to remain muted, projecting roughly \$35bn of downgrades to high yield. In fact, we believe that rising stars will outpace fallen angels this year – continuing of the trend seen in eight of the past nine years (*Angels Flirt but Won't Fall*). That said, many investors remain cautious about the potential implications of large fallen angel volumes – for both the credits downgraded to high yield and legacy high yield issuers. In addition, specific focus has been placed on the largest BBB capital structures, especially given the shrinking size of the high yield market in recent years.

As outlined in *Big BBBs Won't Break Bad*, our investment grade analysts think that the largest BBB issuers have a low risk of downgrade to high yield given their significant cash flow levers and general defensive business industry positioning. That said, these names remain topical and continue to be a concern for investors. As a result, we think it is worth evaluating the historical performance of large fallen angels for investors who may have a more bearish view and view fallen angel risk as more problematic in 2019.

We find that the largest fallen angels fall the hardest but bounce the most. As seen in Figure 1, the OAS of fallen angel bonds since 2000 has, on average, widened 200bp more than the Investment Grade Index in the six months leading up to the downgrade to high yield. The bonds tightened versus the High Yield Index by roughly 60bp in the six months following the downgrade. When we look specifically at capital structures that are large enough to represent either 1% or 2% of the High Yield Index by amount outstanding after falling, we find that the moves are even larger, to both the upside and the downside. For example, debt structures that become more than 2% of the High Yield Index widen roughly 300bp relative to the Investment Grade Index in the six months before the downgrade and then tighten by more than 100bp relative to the High Yield Index in the six months following.

FIGURE 1

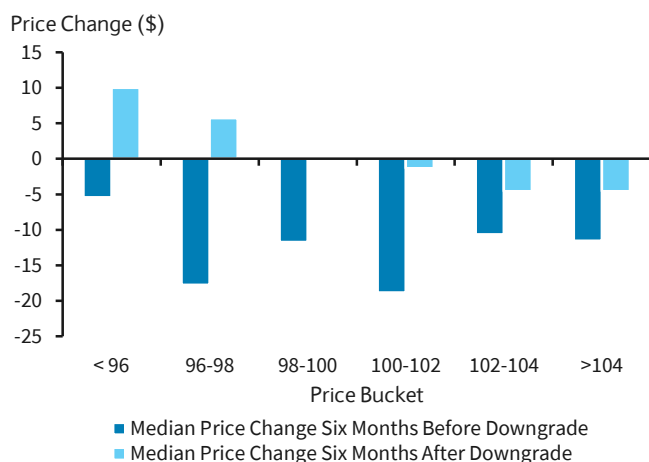
Larger Debt Structures Underperform More before Downgrade but Outperform More after Downgrade



Source: Bloomberg Barclays Indices

FIGURE 2

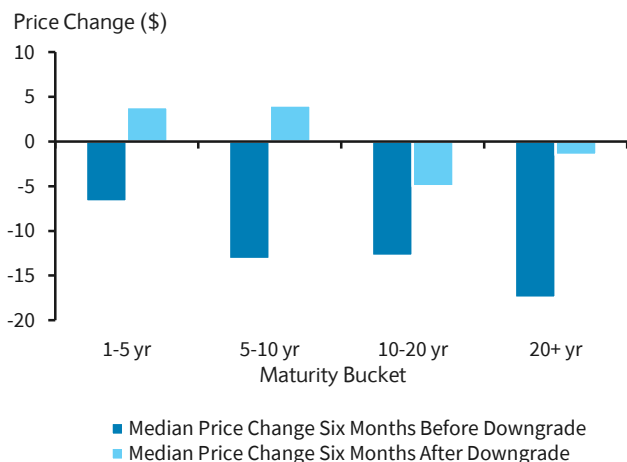
High Dollar Price Bonds of Large Fallen Angels Continue to Decline Following the Downgrade...



Note: Tracks bonds from fallen angel issuers that represent at least 1% of the US High Yield Index. Source: Bloomberg Barclays Indices

FIGURE 3

...As Do the Bonds with Longer Maturity at Time of Downgrade



Note: Tracks bonds from fallen angel issuers that represent at least 1% of the US High Yield Index. Source: Bloomberg Barclays Indices

We note, however, that data are limited for fallen angel cap structures that become more than 2% of the High Yield Index after downgrade, with only six instances since 2000 (the most recent in 2008) – Worldcom (2002), Qwest (2002), El Paso (2002), General Motors (2005), Ford (2005), and Sprint (2008). This group of credits outperformed the high yield market despite the dramatic underperformance of Worldcom, which filed for bankruptcy protection shortly after falling to high yield.

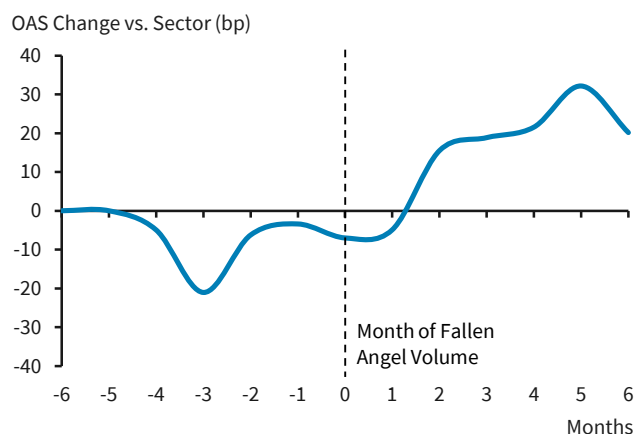
To get a more robust dataset of historical fallen angels that stayed in the High Yield Index for an extended period (ie, to avoid companies that quickly went from investment grade to high yield to default), we evaluate downgraded credits that represented at least 1% of the High Yield Index and remained in the index for at least one year after downgrade. This includes more than 300 bonds from 22 different large-cap structure fallen angels since 2000.

- **Performance by starting price:** Figure 2 illustrates the price change of these bonds in the six-month periods before and after the downgrade to high yield based on their price six months prior to the downgrade. High dollar price bonds tend to continue to decline after the downgrade, while lower dollar price bonds rebound. This supports our research indicating that lower dollar price bonds have better convexity than higher dollar price bonds (see [Capture the Convexity](#) for more details).
- **Performance by maturity:** Figure 3 breaks down these fallen angel bonds by years from the downgrade until maturity and shows that bonds with 10 or more years until maturity continue to decline in price by roughly \$3 in the six months after downgrade. Conversely, bonds with less than 10 years to maturity experienced a median price rebound of \$4 following the downgrade to high yield. This outperformance of the front end is consistent with high yield investors' preference for shorter-dated paper.

While the results above are for large capital structures, similar conclusions hold generally for all fall angels. In addition, while some of the higher-priced bonds are longer maturity, there seems to be no significant relationship between starting price and maturity buckets in our analysis.

FIGURE 4

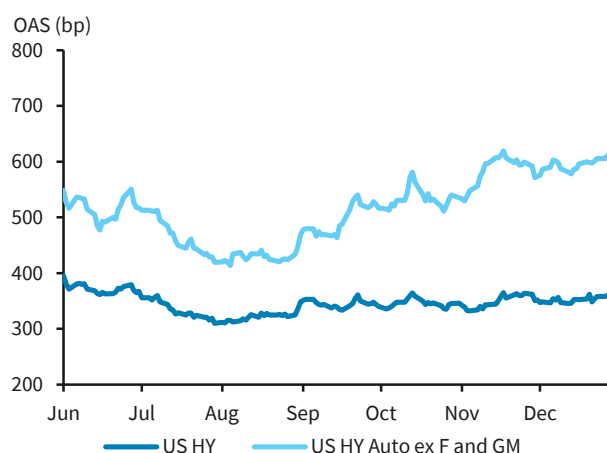
Performance of Largest Legacy High Yield Issuer Relative to the Sector When a Large Fallen Angel Enters the Sector



Source: Bloomberg Barclays Indices

FIGURE 5

Legacy US High Yield Automotive Spreads Widened Following the Downgrade of GM and Ford to High Yield



Source: Bloomberg Barclays Indices

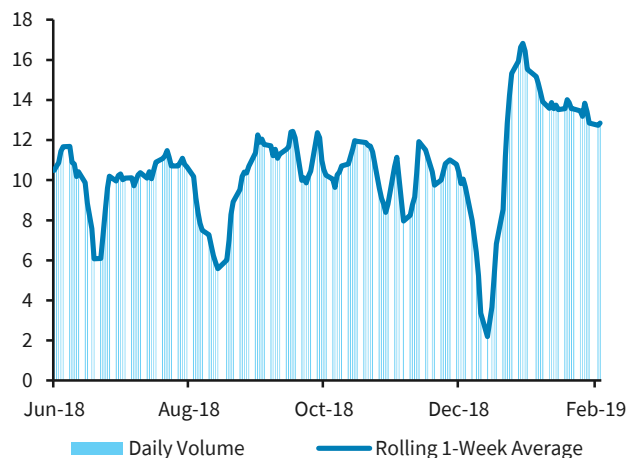
While this analysis explains the performance of fallen angels themselves, there are also trends for high yield issuers following large levels of downgrades, specifically for BB issuers as whole, as well as companies in the industries where the downgrades occur. In *Gauging the Effect of Falling BBBs*, we found that legacy BB names (BB issuers excluding fallen angels) tended to perform in line with their beta-implied levels in periods of significant fallen angel volumes. Specifically, they outperformed BBBs but underperformed single-Bs. This indicates the ability of legacy BBs to digest large amounts of new bonds that fall into the High Yield Index.

On an issuer-level basis, the story is different. Figure 4 shows the spread move of the largest issuer in a specific high yield sector relative to the index when there is at least \$10bn of fallen angel volumes in a given month in that sector (see *Angels Flirt but Won't Fall* for more details). On average, the largest legacy high yield issuer tends to widen by more than 20bp relative to the index in the six months following a large volume of fallen angels in the same sector.

Following Fitch's downgrade of Newell Brands (NWL) to BB+ earlier this week, the company would fall to the High Yield Index with a one-notch downgrade by either Moody's or S&P (Moody's has the company on negative outlook). While Newell's roughly \$6bn of US High Yield Index-eligible debt would represent only 0.5% of the High Yield Index, it would constitute approximately one-fourth of the high yield consumer products sector – a magnitude that could cause ripples in the valuations of existing issuers in the sector. Mattel (MAT), Spectrum Brands (SPB), and Energizer Holdings (ENR) are currently the largest issuers in the high yield consumer products sector (see *4Q18 Review: A Longer Road to Staying IG* for more details).

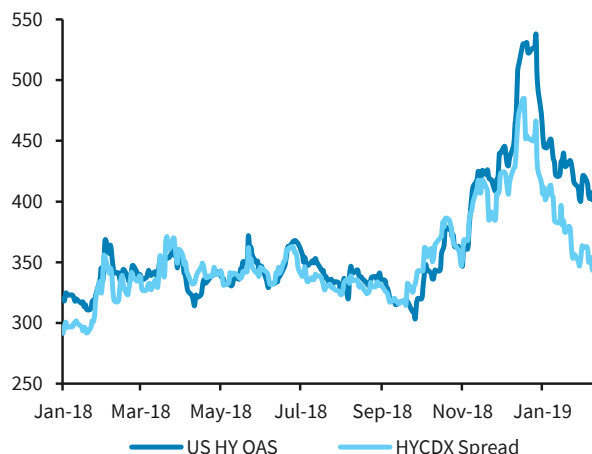
A noteworthy example of a large volume of fallen angel debt within the same sector occurred in May 2005, when both General Motors and Ford were downgraded to high yield. As seen in Figure 5, US High Yield Index spreads tightened nearly 40bp in the six months following the downgrade of GM and Ford, while the legacy high yield automotive index saw spreads widen nearly 60bp. Although some of this performance can be explained by secular pressures on the industry, we think that the addition of GM and Ford to the high yield automotive subsector resulted in selling pressure on legacy high yield names. Ultimately, the underperformance of high yield issuers during periods of large fallen angel volumes will be exacerbated if multiple large capital structures are downgraded within a compressed period, especially if those issuers are in the same industry.

High Yield Average Institutional Trade Volume (\$bn)



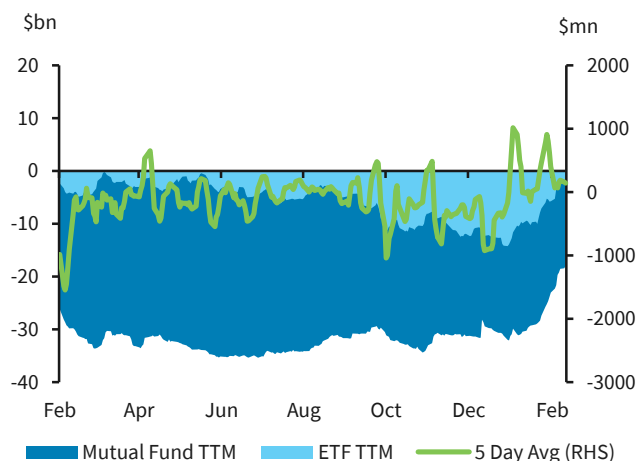
Note: Includes both registered and 144A volumes. Source: FINRA TRACE

On-the-Run HYCDX versus US High Yield Index (bp)



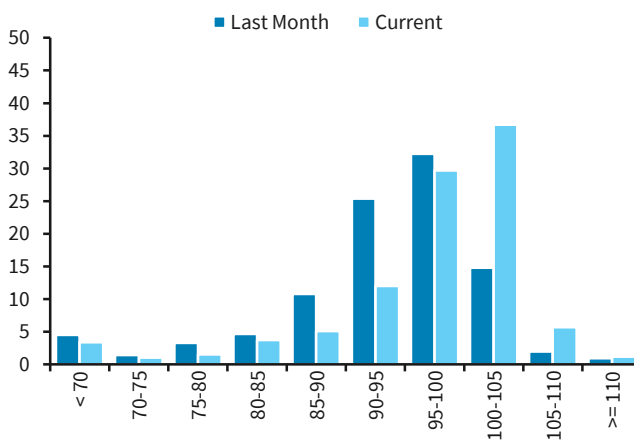
Source: Barclays Research

Flows to High Yield Mutual Funds and ETFs



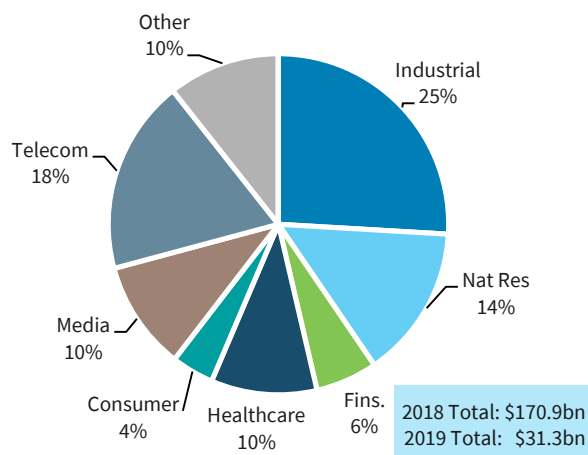
Note: Daily reporters only. Source: EPFR

High Yield Index Price Distribution by Par (%)



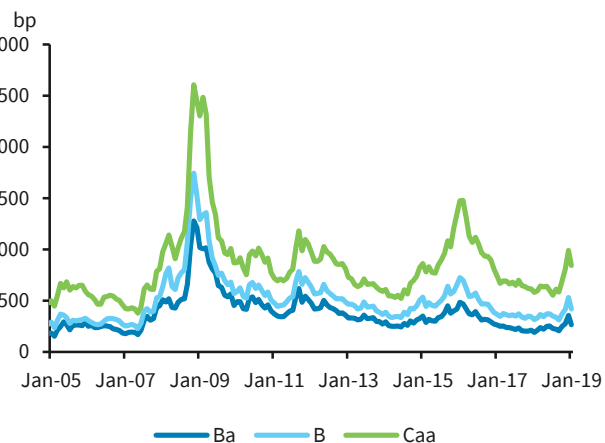
Source: Barclays Research

High Yield Supply by Sector



Source: Bloomberg Barclays Indices

High Yield Spreads by Credit Quality



Source: Bloomberg Barclays Indices

Analyst Certification

We, Rizwan Hussain, Bradley Rogoff, CFA and Scott Schachter, hereby certify (1) that the views expressed in this research report accurately reflect our personal views about any or all of the subject securities or issuers referred to in this research report and (2) no part of our compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

Important Disclosures:

Barclays Research is produced by the Investment Bank of Barclays Bank PLC and its affiliates (collectively and each individually, "Barclays").

All authors contributing to this research report are Research Analysts unless otherwise indicated. The publication date at the top of the report reflects the local time where the report was produced and may differ from the release date provided in GMT.

Availability of Disclosures:

For current important disclosures regarding any issuers which are the subject of this research report please refer to <https://publicresearch.barclays.com> or alternatively send a written request to: Barclays Research Compliance, 745 Seventh Avenue, 13th Floor, New York, NY 10019 or call +1-212-526-1072.

Barclays Capital Inc. and/or one of its affiliates does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that Barclays may have a conflict of interest that could affect the objectivity of this report. Barclays Capital Inc. and/or one of its affiliates regularly trades, generally deals as principal and generally provides liquidity (as market maker or otherwise) in the debt securities that are the subject of this research report (and related derivatives thereof). Barclays trading desks may have either a long and / or short position in such securities, other financial instruments and / or derivatives, which may pose a conflict with the interests of investing customers. Where permitted and subject to appropriate information barrier restrictions, Barclays fixed income research analysts regularly interact with its trading desk personnel regarding current market conditions and prices. Barclays fixed income research analysts receive compensation based on various factors including, but not limited to, the quality of their work, the overall performance of the firm (including the profitability of the Investment Banking Department), the profitability and revenues of the Markets business and the potential interest of the firm's investing clients in research with respect to the asset class covered by the analyst. To the extent that any historical pricing information was obtained from Barclays trading desks, the firm makes no representation that it is accurate or complete. All levels, prices and spreads are historical and do not necessarily represent current market levels, prices or spreads, some or all of which may have changed since the publication of this document. Barclays Research Department produces various types of research including, but not limited to, fundamental analysis, equity-linked analysis, quantitative analysis, and trade ideas. Recommendations and trade ideas contained in one type of Barclays Research may differ from those contained in other types of Barclays Research, whether as a result of differing time horizons, methodologies, or otherwise.

In order to access Barclays Statement regarding Research Dissemination Policies and Procedures, please refer to <https://publicresearch.barcap.com/S/RD.htm>. In order to access Barclays Research Conflict Management Policy Statement, please refer to: <https://publicresearch.barcap.com/S/CM.htm>.

All pricing information is indicative only. Prices are sourced from Refinitiv as of the last available closing price at the time of production of the research report, unless another time and source is indicated.

Types of investment recommendations produced by Barclays FICC Research:

In addition to any ratings assigned under Barclays' formal rating systems, this publication may contain investment recommendations in the form of trade ideas, thematic screens, scorecards or portfolio recommendations that have been produced by analysts in FICC Research. Any such investment recommendations produced by non-Credit Research teams shall remain open until they are subsequently amended, rebalanced or closed in a future research report. Any such investment recommendations produced by the Credit Research teams are valid at current market conditions and may not be otherwise relied upon.

Disclosure of other investment recommendations produced by Barclays FICC Research:

Barclays FICC Research may have published other investment recommendations in respect of the same securities/instruments recommended in this research report during the preceding 12 months. To view all investment recommendations published by Barclays FICC Research in the preceding 12 months please refer to <https://live.barcap.com/go/research/Recommendations>.

Legal entities involved in producing Barclays Research:

Barclays Bank PLC (Barclays, UK)
Barclays Capital Inc. (BCI, US)
Barclays Bank Ireland Plc, Frankfurt Branch (BBI, Frankfurt)
Barclays Securities Japan Limited (BSJL, Japan)
Barclays Bank PLC, Hong Kong branch (Barclays Bank, Hong Kong)
Barclays Capital Canada Inc. (BCCI, Canada)
Barclays Bank Mexico, S.A. (BBMX, Mexico)
Barclays Securities (India) Private Limited (BSIPL, India)
Barclays Bank PLC, India branch (Barclays Bank, India)
Barclays Bank PLC, Singapore branch (Barclays Bank, Singapore)

Disclaimer

This publication has been produced by Barclays Research Department in the Investment Bank of Barclays Bank PLC and/or one or more of its affiliates (collectively and each individually, "Barclays"). It has been distributed by one or more Barclays affiliated legal entities listed below. It is provided to our clients for information purposes only, and Barclays makes no express or implied warranties, and expressly disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to any data included in this publication. To the extent that this publication states on the front page that it is intended for institutional investors and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors under U.S. FINRA Rule 2242, it is an "institutional debt research report" and distribution to retail investors is strictly prohibited. Barclays also

distributes such institutional debt research reports to various issuers, media, regulatory and academic organisations for their own internal informational news gathering, regulatory or academic purposes and not for the purpose of making investment decisions regarding any debt securities. Media organisations are prohibited from re-publishing any opinion or recommendation concerning a debt issuer or debt security contained in any Barclays institutional debt research report. Any such recipients that do not want to continue receiving Barclays institutional debt research reports should contact debtresearch@barclays.com. Barclays will not treat unauthorized recipients of this report as its clients and accepts no liability for use by them of the contents which may not be suitable for their personal use. Prices shown are indicative and Barclays is not offering to buy or sell or soliciting offers to buy or sell any financial instrument.

Without limiting any of the foregoing and to the extent permitted by law, in no event shall Barclays, nor any affiliate, nor any of their respective officers, directors, partners, or employees have any liability for (a) any special, punitive, indirect, or consequential damages; or (b) any lost profits, lost revenue, loss of anticipated savings or loss of opportunity or other financial loss, even if notified of the possibility of such damages, arising from any use of this publication or its contents.

Other than disclosures relating to Barclays, the information contained in this publication has been obtained from sources that Barclays Research believes to be reliable, but Barclays does not represent or warrant that it is accurate or complete. Barclays is not responsible for, and makes no warranties whatsoever as to, the information or opinions contained in any written, electronic, audio or video presentations of third parties that are accessible via a direct hyperlink in this publication or via a hyperlink to a third-party web site ('Third-Party Content'). Any such Third-Party Content has not been adopted or endorsed by Barclays, does not represent the views or opinions of Barclays, and is not incorporated by reference into this publication. Third-Party Content is provided for information purposes only and Barclays has not independently verified its accuracy or completeness.

The views in this publication are solely and exclusively those of the authoring analyst(s) and are subject to change, and Barclays Research has no obligation to update its opinions or the information in this publication. Unless otherwise disclosed herein, the analysts who authored this report have not received any compensation from the subject companies in the past 12 months. If this publication contains recommendations, they are general recommendations that were prepared independently of any other interests, including those of Barclays and/or its affiliates, and/or the subject companies. This publication does not contain personal investment recommendations or investment advice or take into account the individual financial circumstances or investment objectives of the clients who receive it. The securities and other investments discussed herein may not be suitable for all investors. Barclays is not a fiduciary to any recipient of this publication. Investors must independently evaluate the merits and risks of the investments discussed herein, consult any independent advisors they believe necessary, and exercise independent judgment with regard to any investment decision. The value of and income from any investment may fluctuate from day to day as a result of changes in relevant economic markets (including changes in market liquidity). The information herein is not intended to predict actual results, which may differ substantially from those reflected. Past performance is not necessarily indicative of future results. The information provided does not constitute a financial benchmark and should not be used as a submission or contribution of input data for the purposes of determining a financial benchmark.

This document is being distributed (1) only by or with the approval of an authorised person (Barclays Bank PLC) or (2) to, and is directed at (a) persons in the United Kingdom having professional experience in matters relating to investments and who fall within the definition of "investment professionals" in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"); or (b) high net worth companies, unincorporated associations and partnerships and trustees of high value trusts as described in Article 49(2) of the Order; or (c) other persons to whom it may otherwise lawfully be communicated (all such persons being "Relevant Persons"). Any investment or investment activity to which this communication relates is only available to and will only be engaged in with Relevant Persons. Any other persons who receive this communication should not rely on or act upon it. Barclays Bank PLC is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority and is a member of the London Stock Exchange.

The Investment Bank of Barclays Bank PLC undertakes U.S. securities business in the name of its wholly owned subsidiary Barclays Capital Inc., a FINRA and SIPC member. Barclays Capital Inc., a U.S. registered broker/dealer, is distributing this material in the United States and, in connection therewith accepts responsibility for its contents. Any U.S. person wishing to effect a transaction in any security discussed herein should do so only by contacting a representative of Barclays Capital Inc. in the U.S. at 745 Seventh Avenue, New York, New York 10019.

Non-U.S. persons should contact and execute transactions through a Barclays Bank PLC branch or affiliate in their home jurisdiction unless local regulations permit otherwise.

Barclays Bank PLC, Paris Branch (registered in France under Paris RCS number 381 066 281) is regulated by the Autorité des marchés financiers and the Autorité de contrôle prudentiel. Registered office 34/36 Avenue de Friedland 75008 Paris.

This material is distributed in Canada by Barclays Capital Canada Inc., a registered investment dealer, a Dealer Member of IIROC (www.iiroc.ca), and a Member of the Canadian Investor Protection Fund (CIPF).

All Barclays research reports are distributed to institutional investors in Japan by Barclays Securities Japan Limited. Barclays Securities Japan Limited is a joint-stock company incorporated in Japan with registered office of 6-10-1 Roppongi, Minato-ku, Tokyo 106-6131, Japan. It is a subsidiary of Barclays Bank PLC and a registered financial instruments firm regulated by the Financial Services Agency of Japan. Registered Number: Kanto Zaimukyokuchō (kinsho) No. 143. Barclays Bank PLC, Hong Kong Branch is distributing this material in Hong Kong as an authorised institution regulated by the Hong Kong Monetary Authority. Registered Office: 41/F, Cheung Kong Center, 2 Queen's Road Central, Hong Kong.

All Indian securities-related research and other equity research produced by Barclays' Investment Bank are distributed in India by Barclays Securities (India) Private Limited (BSIPL). BSIPL is a company incorporated under the Companies Act, 1956 having CIN U67120MH2006PTC161063. BSIPL is registered and regulated by the Securities and Exchange Board of India (SEBI) as a Research Analyst: INH000001519; Portfolio Manager INP000002585; Stock Broker/Trading and Clearing Member: National Stock Exchange of India Limited (NSE) Capital Market INB231292732, NSE Futures & Options INF231292732, NSE Currency derivatives INE231450334, Bombay Stock Exchange Limited (BSE) Capital Market INB011292738, BSE Futures & Options INF011292738; Depository Participant (DP) with the National Securities & Depositories Limited (NSDL): DP ID: IN-DP-NSDL-299-2008; Investment Adviser: INA000000391. The registered office of BSIPL is at 208, Ceejay House, Shivsagar Estate, Dr. A. Besant Road, Worli, Mumbai – 400 018, India. Telephone No: +91 2267196000. Fax number: +91 22 67196100. Any other reports produced by Barclays' Investment Bank are distributed in India by Barclays Bank PLC, India Branch, an associate of BSIPL in India that is registered with Reserve Bank of India (RBI) as a Banking Company under the provisions of The Banking Regulation Act, 1949 (Regn No BOM43) and registered with SEBI as Merchant Banker (Regn No INM000002129) and also as Banker to the Issue (Regn No INBI00000950). Barclays Investments and Loans (India) Limited, registered with RBI as Non Banking Financial Company (Regn No RBI CoR-07-00258), and Barclays Wealth Trustees (India) Private Limited, registered with Registrar of Companies (CIN U93000MH2008PTC188438), are associates of BSIPL in India that are not authorised to distribute any reports produced by Barclays' Investment Bank.

Barclays Bank PLC distributes this material in Germany.

This material is distributed in Mexico by Barclays Bank Mexico, S.A.

Nothing herein should be considered investment advice as defined in the Israeli Regulation of Investment Advisory, Investment Marketing and Portfolio Management Law, 1995 ("Advisory Law"). This document is being made to eligible clients (as defined under the Advisory Law) only. Barclays Israeli branch previously held an investment marketing license with the Israel Securities Authority but it cancelled such license on 30/11/2014 as it solely provides its services to eligible clients pursuant to available exemptions under the Advisory Law, therefore a license with the Israel Securities Authority is not required. Accordingly, Barclays does not maintain an insurance coverage pursuant to the Advisory Law.

Barclays Bank PLC in the Dubai International Financial Centre (Registered No. 0060) is regulated by the Dubai Financial Services Authority (DFSA). Principal place of business in the Dubai International Financial Centre: The Gate Village, Building 4, Level 4, PO Box 506504, Dubai, United Arab Emirates. Barclays Bank PLC-DIFC Branch, may only undertake the financial services activities that fall within the scope of its existing DFSA licence. Related financial products or services are only available to Professional Clients, as defined by the Dubai Financial Services Authority.

Barclays Bank PLC in the UAE is regulated by the Central Bank of the UAE and is licensed to conduct business activities as a branch of a commercial bank incorporated outside the UAE in Dubai (Licence No.: 13/1844/2008, Registered Office: Building No. 6, Burj Dubai Business Hub, Sheikh Zayed Road, Dubai City) and Abu Dhabi (Licence No.: 13/952/2008, Registered Office: Al Jazira Towers, Hamdan Street, PO Box 2734, Abu Dhabi).

Barclays Bank PLC in the Qatar Financial Centre (Registered No. 00018) is authorised by the Qatar Financial Centre Regulatory Authority (QFCRA). Barclays Bank PLC-QFC Branch may only undertake the regulated activities that fall within the scope of its existing QFCRA licence. Principal place of business in Qatar: Qatar Financial Centre, Office 1002, 10th Floor, QFC Tower, Diplomatic Area, West Bay, PO Box 15891, Doha, Qatar. Related financial products or services are only available to Business Customers as defined by the Qatar Financial Centre Regulatory Authority.

This material is distributed in the UAE (including the Dubai International Financial Centre) and Qatar by Barclays Bank PLC.

This material is not intended for investors who are not Qualified Investors according to the laws of the Russian Federation as it might contain information about or description of the features of financial instruments not admitted for public offering and/or circulation in the Russian Federation and thus not eligible for non-Qualified Investors. If you are not a Qualified Investor according to the laws of the Russian Federation, please dispose of any copy of this material in your possession.

This material is distributed in Singapore by the Singapore branch of Barclays Bank PLC, a bank licensed in Singapore by the Monetary Authority of Singapore. For matters in connection with this report, recipients in Singapore may contact the Singapore branch of Barclays Bank PLC, whose registered address is 10 Marina Boulevard, #23-01 Marina Bay Financial Centre Tower 2, Singapore 018983.

This material is distributed to persons in Australia by either Barclays Bank PLC, Barclays Capital Inc., Barclays Capital Securities Limited or Barclays Capital Asia Limited. None of Barclays Bank PLC, nor any of the other referenced Barclays group entities, hold an Australian financial services licence and instead they each rely on an exemption from the requirement to hold such a licence. This material is intended to only be distributed to "wholesale clients" as defined by the Australian Corporations Act 2001.

IRS Circular 230 Prepared Materials Disclaimer: Barclays does not provide tax advice and nothing contained herein should be construed to be tax advice. Please be advised that any discussion of U.S. tax matters contained herein (including any attachments) (i) is not intended or written to be used, and cannot be used, by you for the purpose of avoiding U.S. tax-related penalties; and (ii) was written to support the promotion or marketing of the transactions or other matters addressed herein. Accordingly, you should seek advice based on your particular circumstances from an independent tax advisor.

© Copyright Barclays Bank PLC (2019). All rights reserved. No part of this publication may be reproduced or redistributed in any manner without the prior written permission of Barclays. Barclays Bank PLC is registered in England No. 1026167. Registered office 1 Churchill Place, London, E14 5HP. Additional information regarding this publication will be furnished upon request.

BRCF2242

