3 June 2014 | 10 pages

High Grade
North America

US CreditBrief

The back-end buyers' strike continues

- **IG Corporates widened 1bp in May to 102bp**—Geopolitical risks were on the backburner for most of May, and while M&A has continued to dominate the headlines, the impact to spreads has been limited as most acquirers have been high-quality companies. That being said, the Treasury rally appears to be a key reason for the lethargic price action last month.

- **The view in brief**—A lack of spread volatility continues to characterize IG credit. But unlike April, spread tightening has come to a halt, coincidentally right around 100bp. At this juncture, we worry that lack of volatility has lulled the market into the belief that spread moves will continue to be small and the year will prove to be one for coupon-clipping. Yet, with the possibility of resurging geopolitical risks and slowing US growth as tapering proceeds on one hand, and potential easing in Europe and Japan on the other, we think spreads are unlikely to stay where they are—however, the direction they will go is another question altogether. As such, the prospect of coupon-clip type returns lasting for very long is unlikely.

Sonam T Pokwal
+1-212-723-3807
sonam.t.pokwal@citi.com

Jason Shoup
+1-212-723-6147
jason.b.shoup@citi.com

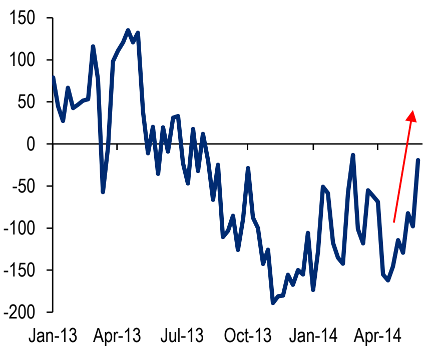
Swati Verma
+1-212-723-3554
swati1.verma@citi.com

Figure 1. High grade OAS performance over May 2014, in bp

	Current	Last Month	Spread Change	
	30-May-14	30-Apr-14	Absolute	Relative
BIG Corp	**102**	**101**	**1**	**1%**
IG21	**62**	**64**	**-2**	**-3%**
Financials	**96**	**95**	**1**	**1%**
Banks	88	88	0	0%
REITs	114	112	2	2%
Financial Svc.	103	100	2	2%
Insurance	107	104	3	3%
Non-financials	**105**	**103**	**2**	**2%**
Telco & Media	122	123	-1	-1%
Energy	118	118	0	0%
Basic Materials	141	140	0	0%
Utilities	109	107	2	2%
Industrials	96	94	2	2%
Technology	83	80	3	4%
Consumer Goods	84	81	3	4%
Consumer Svc.	101	98	3	4%
Healthcare	82	78	4	5%

Source: Citi Research, Yieldbook

Figure 2. 10yr UST futures net positioning, in thousands of contracts



Source: Citi Research, Bloomberg, CFTC

Broad market trends and events

- Months where spreads hardly move are the ones that are most difficult to characterize, and May was no exception. The BIG corporate barely budged over the course of the month, and ended only 1bp wider at 102bp. That being said, we also saw 10s30s curves steepen meaningfully among financials and nonfinancials alike. We reckon both the lethargic spreads and steeper curves are a side effect of unexpected interest rate moves.

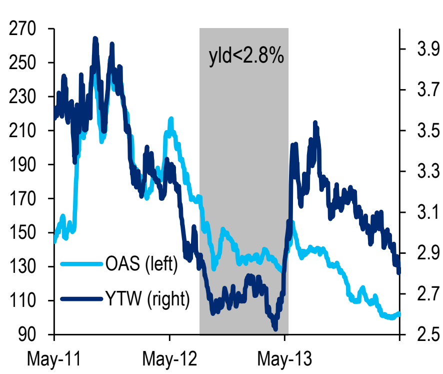
- Treasuries were probably the most watched market in May, and considering that the 10yr Treasury yield dropped 17bp over the course of the month, this should come as no surprise. More shocking, however, was the move itself, which seems to have caught the majority of the investor community off-guard. A cursory look at 10yr Treasury futures positioning illustrates that, on the margin, investors expected rates to back up at the start of May (Figure 2). The rapid unwind of the short-Treasury position over the course of the month suggests many investors have been squeezed or that the thesis supporting higher rates has cracked.

- It's likely that lower rates inhibited spread performance during the month. Using history as a guide we can see that spreads struggle to tighten when yields are below the 2.8-2.9% context (Figure 3). In fact, spread moves in either direction were mostly muted over the period from 4Q '12 to 1Q '13 when corporate bond yields dipped below 2.8%. We reckon the loss of the demand associated with yield-sensitive investors had a lot to do with the underperformance of credit back then. And now that corporate bond yields have once again approached the same low levels, it's not surprising to see similar behavior, especially since spreads are considerably tighter than pre-taper tantrum levels.

- The softening bid for paper last month can also be observed in TRACE data. While the 3-month rolling net client buys hovered around $5-8bn over the past 12 months, it dropped to zero in May (Figure 4).

- On a total-return basis, IG cash yields mirrored the rally in Treasuries and have now returned 5.1% for the year, outperforming equities. Despite the rally in yields, the year still looks very much like a beta-led rally; Triple-Bs have performed the best in terms of quality, generating 6.1% total returns as spreads have tightened 22bp year-to-date.

Figure 3. BIG Corp OAS and YTM, OAS in bp (left) and YTM in % (right)



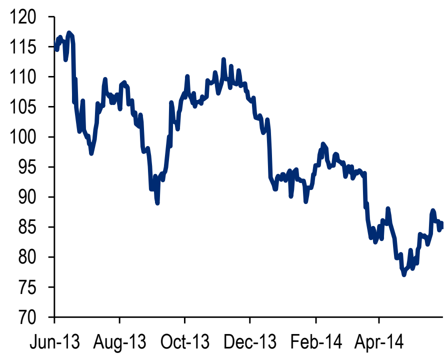
Source: Citi Research

Figure 4. Net client buys of IG cash corporate bonds, rolling-3m in $bn

Source: Citi Research, TRACE

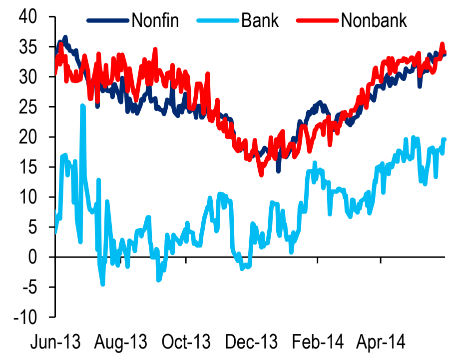
- Credit curves have also been taking cues from the rates market. Over the course of this year, 30yr USTs have outperformed the 10yr by 9bp (Figure 5). And while 10s30s USTs steepened by 3bp in May, yields on long-end corporates are still at levels where the interest from liability-driven buyers is comparatively low. As a result, 10s30s spread curves in nonfinancials, banks, and non-bank financials have all steepened 15-16bp year-to-date, of which 2-3bp happened over the last month (Figure 6).

Figure 5. 10s30s US Treasury spread, yield in bp



Source: Citi Research, Bloomberg

Figure 6. On-the-run IG 10s30s OAS spread, in bp

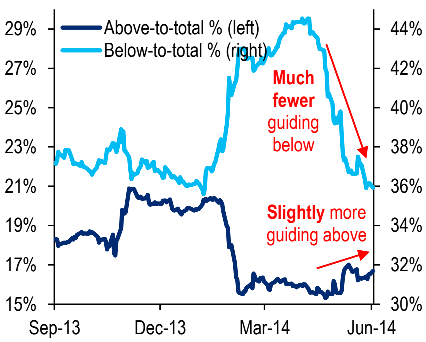


Source: Citi Research

- Economic data in May continued to beat expectations, further supporting the view that weak data earlier this year were a result of weather distortions. One of the big positive prints last month was nonfarm payrolls, which came in at 288k vs 219k expectations. Not only was this the largest gain since January 2012, but March and February figures were also revised up 36k. The caveat, however, was the decline in the labor force. The least encouraging data print last month was the downward revision of 1Q GDP to -1.0%, driven predominantly by lower inventories. But aside from the headline print, our **economists view the overall GDP report as better-than-expected**—domestic demand was revised a touch higher, consumer spending showed a 3.1% gain, and it seems that growth is still expected to hit a run rate of 3% with upside risk by the fourth quarter of 2014.

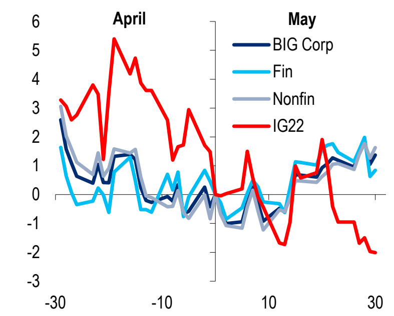
- Overall, 1Q earnings season was not particularly strong, but could easily have been much worse. A look at the overall guidance reveals that while the proportion of companies guiding above consensus expectations only picked up slightly, the proportion of companies guiding below consensus dropped substantially (Figure 7). The stable guidance picture is attributable mostly to utilities, healthcare, and industrials. But as we highlighted in our **weekly mid-month**, only industrials management teams seemed truly optimistic about company prospects. Utilities did well only because of colder-than-expected weather, and healthcare guidance was driven by share repurchases.

Figure 7. Companies guiding above/below consensus expectations, as a % of total



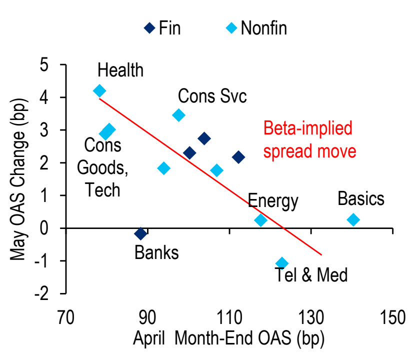
Source: Citi Research, Bloomberg

Figure 8. High grade spread performance, in bp since April 30th



Source: Citi Research

Figure 9. May spread performance vs. April month-end level, in bp



Source: Citi Research

Sector performance

- Financials ended their streak of underperforming nonfinancials this month–the former widened just 1bp while the latter widened 2bp. Among financials, insurance was the worst performing sector, backing up 3bp in May, while banks were the best performing sector with spreads flat over the month.

- Not surprisingly, insurance as a sector was hurt disproportionately by the rally in rates this month, as low rates are a fundamental concern for the economics of the business. Genworth was among the worst performers, widening 10bp after 40bp+ of tightening year-to-date on the back of activist pressures to split the business. Allstate and Aflac widened 6bp in spite of reporting in-line earnings.

- The healthcare sector's 4bp backup ranks it as the worst performer among nonfinancials. The sector continues to be pressured by M&A headlines. Actavis widened 17bp after announcing it would unconditionally guarantee all of Forest Labs' senior unsecured debt upon the close of the transaction. Allergan (AGN) continued to widen throughout May as there was back and forth on acquisition bids from Valeant which could increase AGN's leverage by four times. Finally, AstraZeneca (AZN) widened 6bp on the potential of an acquisition by Pfizer, but rebounded partially after the deal fell through (the $120bn final offer was thwarted towards the end of the month).

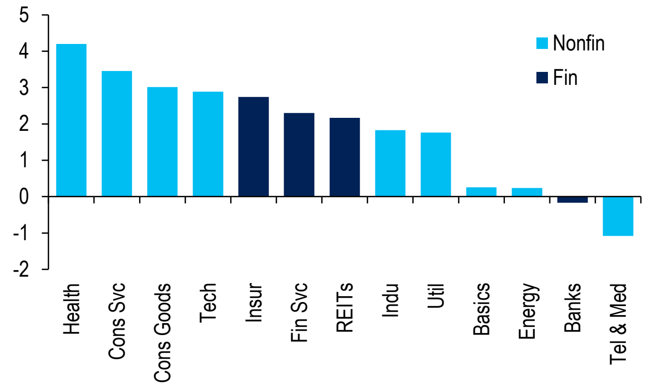
- After healthcare, consumer goods was the next worst performer, widening 3bp in May. Not coincidentally, the sector was also particularly active from an M&A perspective. Hillshire Brands (HSH) spiked by 65bp after announcing its intent to purchase Pinnacle Foods, but subsequently reversed most of the move when Tyson Foods (+22bp) and Pilgrim's Pride each separately announced their intent to purchase HSH. Hillshire ended the month just over 30bp wider. Avon Products leaked 14bp wider after weak quarterly results that reflected significant operational challenges, though this was muted due to a lack of a ratings cut from S&P. Lorillard grinded 6bp tighter on news flow indicating that talks with Reynolds are in advanced stages for an acquisition, which will result in the combined entity capturing 40%+ of the US cigarette market share and 70% of the menthol segment.

- Consumer services were on par with consumer goods' performance, also widening 3bp in May. Home Depot (HD) widened 5bp due to major misses in sales and EPS expectations. Darden Restaurants (DRI) tightened 16bp on account of the sale of its Red Lobster asset, which will be used to reduce leverage slightly. However, shareholders didn't receive this news positively and now a key activist shareholder, Starboard, is attempting to replace all board members which could potentially trip the change-of-control covenants in DRI bonds.

- The technology sector also widened by 3bp this month. Energizer (ENR) was the biggest mover in tech, jumping 59bp wider on the back of its decision to split into two separate units with distinct capital structures. Motorola widened 10bp after weak quarterly results and given its reduced business diversity with the Zebra transaction, increased leverage, and increased shareholder focus.

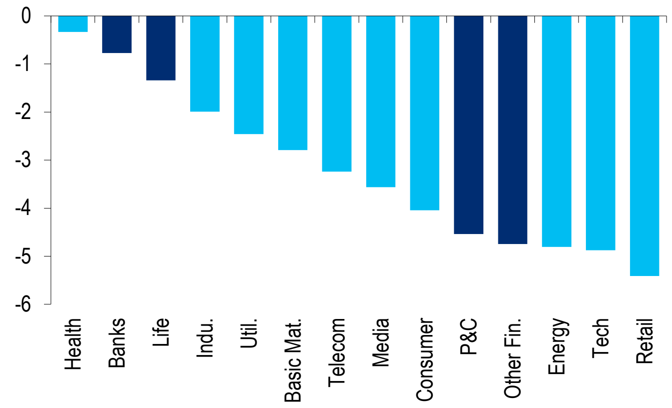
- Telecom and media was the best performing sector this month, albeit tightening an underwhelming 1bp. AT&T's decision to acquire DirecTV (DTV) caused DTV bonds to tighten 29bp on the potential of an upgrade by Moody's and S&P. Other media companies had quite the opposite reaction—for instance, Discovery Communications widened 8bp.

Figure 10. May '14 cash sector performance*, in bp



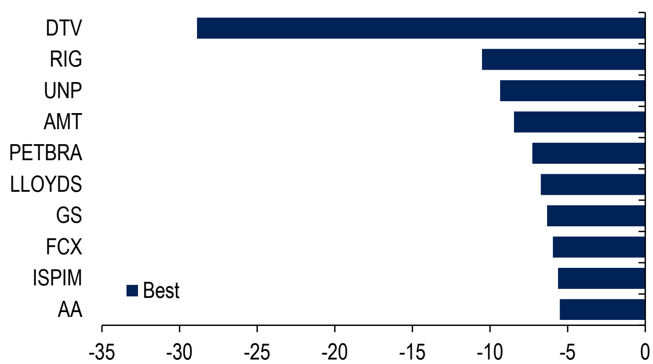
Source: Citi Research
*Citi BIG Corp index universe constituents used for calculations.

Figure 11. May '14 CDS sector performance*, in bp



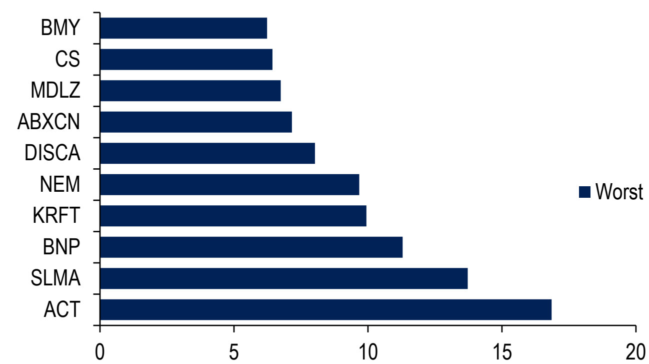
Source: Citi Research"
*The sectors above include all IG22 constituents plus the 6 primary US banks. Note that spreads are **not** roll adjusted.

Figure 12. Best OAS performers in May '14*, in bp



Source: Citi Research
*OAS change in May '14 of all index-eligible debt. The credit must have at least $5bn of index-eligible debt and have seen $250mn+ trades in the past 3 months.

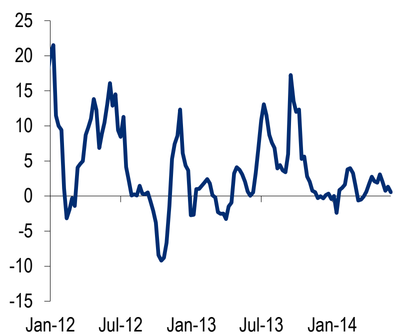
Figure 13. Worst OAS performers in May '14*, in bp



Source: Citi Research
*OAS change in May '14 of all index-eligible debt. The credit must have at least $5bn of index-eligible debt and have seen $250mn+ trades in the past 3 months.

Supply: still on track for $940 for the year

Figure 14. IG New issue concessions, 30-dma in bp



Source: Citi Research

- After the dearth in supply in April resulting largely from earnings blackouts, investment grade corporate issuance bounced up 27% to $90.4bn ($44.1bn in financials and $46.2bn in nonfinancials). Year-to-date, we are 49% of the way to our full-year target of $940bn.

- While the observable seasonal pattern leaves us unsurprised by a month-over-month increase in supply, we would have expected more than the 27%. Since 2002, the April-May increase in supply averaged 44%, driven largely by pent up supply during 1Q earnings season.

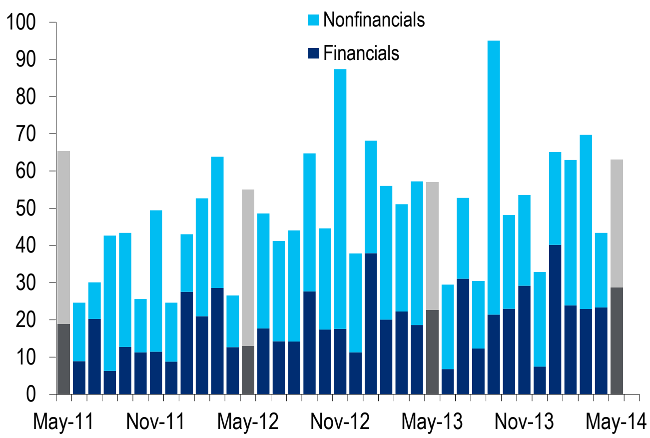
- Using May '12 and May '13 for guidance, we would have expected somewhere between 60-to-80% of the supply to come from nonfinancials (financial issuers are normally much more active at the start of the year and quickly taper off). Last month however, supply was split quite evenly between financials and nonfinancials. In fact, compared to last May, the month's financial supply saw a 30% increase while nonfinancials saw a 22% decrease.

- But financial supply was heavily concentrated in a handful of names. In fact, 7 of the top 10 issuers last month were financial credits, and these credits issued over half of the financial supply. Among the top issuers were Credit Suisse (CS), Wells Fargo (WFC), Deutsche Bank (DB), General Electric Capital Corp (GE), Westpac Banking (WSTP), Royal Bank of Scotland (RBS), and Barclays (BACR). Also notable is that of these names, Wells Fargo and Westpac issued new subordinated debt.

- Pfizer (PFE), Amgen (AMGN), and Celgene (CELG) were among the top issuers in the nonfinancial space. But that said, with the exception of Amgen which plans to use at least part of the capital raised to finance share repurchases, most of this chunky debt issuance was simple refinancing activity.

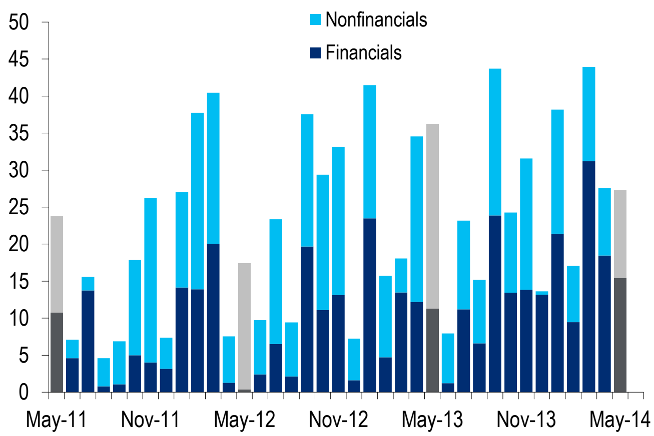
- Despite the increased supply, new issue concessions edged lower in May. Not surprisingly, the more active issuers suffered the highest concessions. Some of the top issuers (including Barclays, Deutsche Bank, and Amgen) also ranked highest in concessions (8bp, 12bp, and 14bp, respectively).

Figure 15. Domestic issuer supply, in $bn



Source: Citi Research, Dealogic

Figure 16. Non-US issuer supply, in $bn



Source: Citi Research, Dealogic

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Inc	Sonam T Pokwal; Jason Shoup; Swati Verma

OTHER DISCLOSURES

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Bell Potter Customers: Bell Potter is making this Product available to its clients pursuant to an agreement with Citigroup Global Markets Australia Pty Limited. Neither Citigroup Global Markets Australia Pty Limited nor any of its affiliates has made any determination as to the suitability of the information provided herein and clients should consult with their Bell Potter financial advisor before making any investment decision.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in **Australia** through Citigroup Global Markets Australia Pty Limited. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. FIFC, 1202, 14th Floor, G-Block, BKC, Bandra East, Mumbai - 400051. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised by the PRA and regulated by the FCA and the PRA. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A.,

Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold//Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 399 Interchange 21 Building, 18th Floor, Sukhumvit Road, Klongtoey Nua, Wattana ,Bangkok 10110, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised by the Prudential Regulation Authority (“PRA”) and regulated by the Financial Conduct Authority (“FCA”) and the PRA. This material may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the PRA nor regulated by the FCA and the PRA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is authorised by the PRA and regulated by the FCA and the PRA.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

Citi Research generally disseminates its research to the Firm’s global institutional and retail clients via both proprietary (e.g., Citi Velocity and Citi Personal Wealth Management) and non-proprietary electronic distribution platforms. Certain research may be disseminated only via Citi’s proprietary distribution platforms; however such research will not contain changes to earnings forecasts, target price, investment or risk rating or investment thesis or be otherwise inconsistent with the author’s previously published research. Certain research is made available only to institutional investors to satisfy regulatory requirements. Individual Citi Research analysts may also opt to circulate published research to one or more clients by email; such email distribution is discretionary and is done only after the research has been disseminated.

The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client’s individual preferences as to the frequency and manner of receiving communications from analysts, the client’s risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints.

Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Thomson Reuters.