

Systematically Selecting Securities to Simulate Sectors

Ryan Preclaw, CFA
+1 212 412 2249
ryan.preclaw@barclays.com

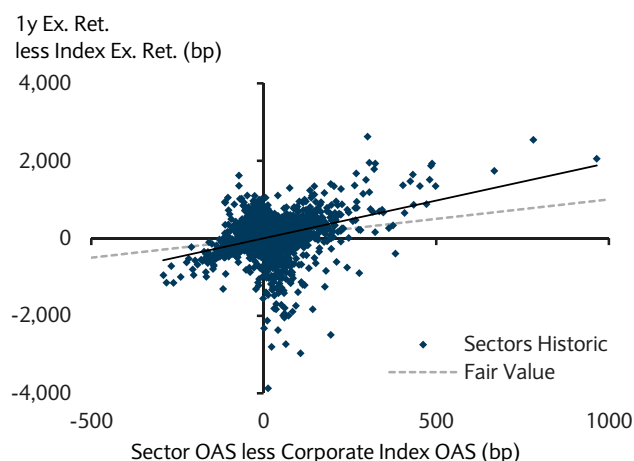
With little room for upside from owning investment grade credit, we believe that a useful source of relative value comes from increasing exposure to the widest sectors. Buying every credit in a sector is impractical, but a tradable tracking portfolio can be an effective way to gain such exposure. Historically, a 25-bond portfolio has been effective in matching the performance of the five widest sectors and would have generated 100-200bp more excess return than the U.S. Corporate Index with a higher Sharpe ratio. An illustrative portfolio designed to track the current five widest sectors – metals & mining, midstream pipelines, oil field services, life insurers, and wireline telcos – is rated one notch lower than the index, but offers about double the spread compensation that would be expected just from its ratings differential.

With investment grade spreads seemingly settled into a tight trading range – the Corporate Index OAS has closed between 98 and 103bp on more than 80% of days in the past six months – we believe that outperformance depends on finding relative value in the index. In our view, investors can frequently do better than the benchmark by concentrating their portfolios in wider-trading sectors. In the past, we have suggested that investors tilt their portfolios toward out-of-favor sectors. To move beyond simply tilting exposures, a small tracking portfolio is a way to systematically turn sector performance into an actionable strategy.

Bonds in the Widest Sectors Outperform

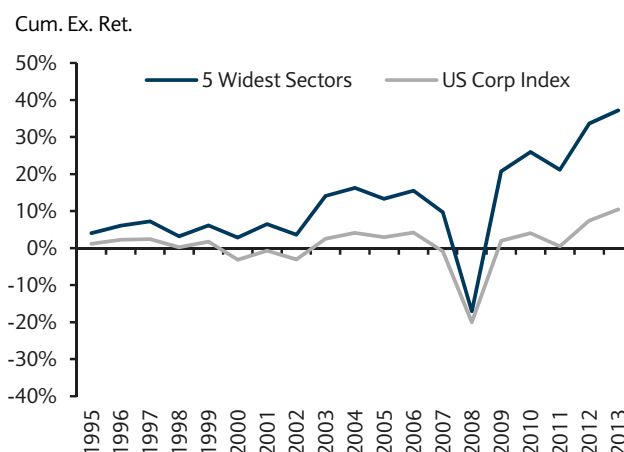
In the November 2013 *U.S. Credit Focus: Go Wide for Outperformance*, we presented evidence that the sectors that trade widest relative to the overall index perform better, even after adjusting for their higher risk. Figure 1 demonstrates the effect: if the strategy was simply one of buying higher-beta securities, we would expect the average relationship between sector OAS and excess return to track the “Fair Value” line. The actual relationship is above fair value, suggesting that the widest sectors are receiving more-than-expected compensation for their additional risks.

FIGURE 1
Sectors with Wide Spreads Have Higher-Than-Expected Excess Returns



Source: Barclays Research

FIGURE 2
The Five Widest Sectors Have Consistently Returned More Than the Corporate Index



Note: Assumes equal-weighted quarterly cohorts held for one-year rolling periods. Source: Barclays Research

This is not a recent phenomenon. Looking back to 1995 (Figure 2), we see that a strategy of buying the five widest sectors has generally done better than the index. The average magnitude of outperformance has been similar before and after the 2008 financial crisis, suggesting that this has been a sustainable strategy. Average annual excess returns of the five widest sectors since 1995 were 200bp (median about 220bp), versus an average excess return of 55bp (median 117bp) for the U.S. Corporate index.

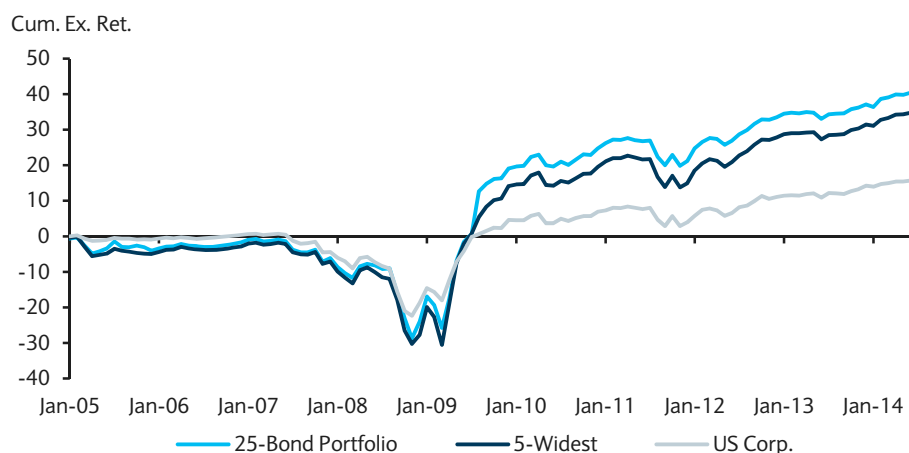
Widest-Sector Performance Can Be Approximated by a Tradable Tracking Portfolio

While buying exposure to an entire sector of the credit index is impractical, it is possible to closely simulate the overall performance with only a small subset of bonds. As a proof of concept, we use the portfolio optimizer built into Barclays' POINT to build historical tracking portfolios using the following constraints:

- Minimize historical tracking error to five widest sectors as of the start of each year
- Limited to 25 bonds
- Restricted to the five widest sectors that each represent at least 50bp of the total index by market value
- Market-value weighted
- Rebalanced annually

We view these constraints as illustrative of how a tracking portfolio can be built, but by no means the only ones that would work. Investors could add further restrictions in terms of single-name concentration, issue size, liquidity, bid-ask, or other factors. While further constraints are likely to add some tracking error, we think there are many ways to create portfolios that will perform similar to the five widest sectors.

FIGURE 3
A 25-Bond Portfolio Closely Tracks the Performance of the Five Widest Sectors



Source: Barclays Research

Apart from a single month in 2009 when the tracking portfolio ran well ahead, our illustrative 25-bond tracking portfolio closely matches the performance of the five widest sectors (Figure 3). The annualized absolute deviation is 60bp, versus almost 200bp of average outperformance versus the Corporate Index. The five-widest tracking portfolio's annualized median return is more than 100bp higher than that of the U.S. Corporate Index, and although it does have higher volatility, it also has a higher Sharpe ratio.

FIGURE 4

Tracking Portfolio Captures the Outperformance of the Five Widest Sectors Strategy

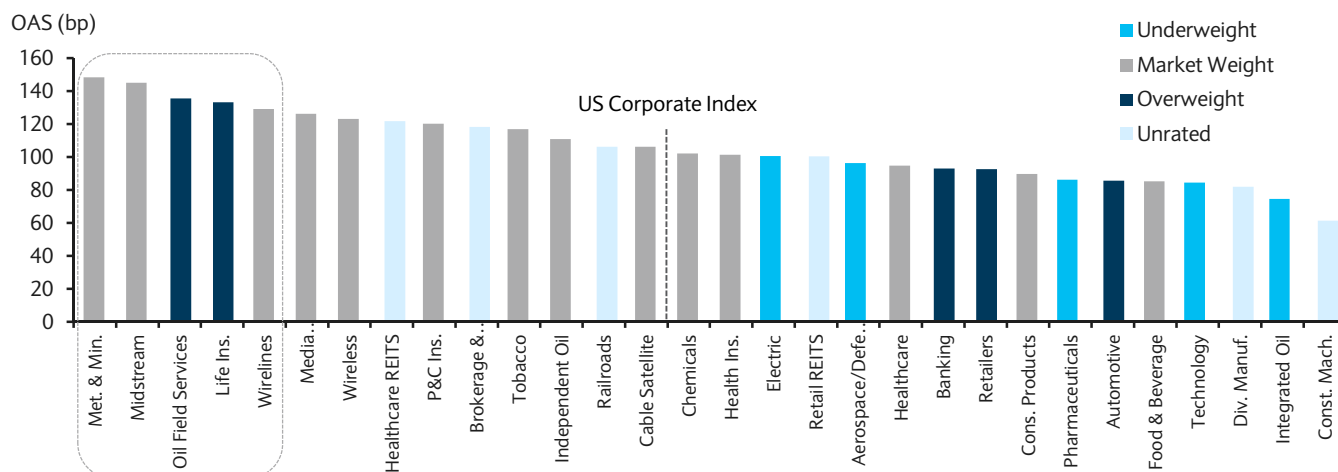
	Tracking Portfolio	Five Widest Sectors	U.S. Corporate Index
Average Annual Excess Return	426bp	366bp	165bp
Median Annual Excess Return	306bp	324bp	204bp
Annualized Standard Deviation	921bp	926bp	569bp
Sharpe Ratio	0.46	0.40	0.29
Avg Annual Deviation vs Sectors Strategy	60bp		

Source: Barclays Research

Current Opportunities

Limiting sectors to those representing at least 0.5% of the index by market value, the widest five sectors in the U.S. Corporate Index are metals & mining, midstream pipelines, oil field services, life insurers, and wireline telcos (Figure 1).

FIGURE 5

The Five Widest Sectors Are Metals & Mining, Midstream, Oil Field Services, Life Insurance, and Wireline Telcos

Source: Barclays Research

Using the same constraints listed above in POINT's portfolio optimizer results in the portfolio listed in Figure 6. A few things stand out. First, the average rating is Baa1/Baa2, one notch lower than the A3/Baa1 average for the U.S. Corporate Index. The spread on the portfolio is wider than we would expect from ratings alone: the average spread value for a single notch between A3 and Baa2 is 20bp, but the portfolio average OAS is 45bp wider than the index. The duration of the tracking portfolio is similar to that of the U.S. Corporate Index, at just over eight years.

The portfolio in Figure 6 was built with few constraints and a primary focus on minimizing tracking error, but investors could consider other factors. It could be optimized to lower trading costs, increase liquidity, match the index duration more precisely, or use other dimensions. That said, we view this portfolio as a viable option for executing a five widest sectors strategy. Investors seeking outperformance in this environment could consider it a reasonably reliable way to generate higher carry and higher expected return while taking on only modestly higher risk.

FIGURE 6

Five Widest Sectors Tracking Portfolio Is Rated One Notch Lower Than U.S. Corporate Index, but Trades with 45bp Wider OAS

Bond	Sector	Weight in Tracking Portfolio	Issue Outstanding Market Value (\$bn)	OAS (bp)	OAD	Index Rating
MET 5.7 06/15/35	Life Insurance	3.4%	\$1.2	125.9	13.1	A3
PFG 8 7/8 05/15/19	Life Insurance	3.3%	\$0.4	108.8	3.9	BAA1
HIG 5 1/8 04/15/22	Life Insurance	4.0%	\$0.9	97.4	6.4	BAA3
AFL 3 5/8 06/15/23	Life Insurance	3.7%	\$0.7	102.0	7.6	A3
GLENLN 6 10/15/15	Metals & Mining	1.2%	\$0.4	104.2	1.1	BAA2
VALEBZ 8 1/4 01/17/34	Metals & Mining	2.5%	\$1.0	278.9	11.0	BAA1
RS 6.2 11/15/16	Metals & Mining	5.6%	\$0.4	164.8	2.0	BAA3
ABXCN 6.95 04/01/19	Metals & Mining	2.6%	\$0.9	100.0	3.9	BAA2
RIOLN 3 1/2 03/22/22	Metals & Mining	3.1%	\$1.0	83.0	6.6	A3
RIOLN 2 7/8 08/21/22	Metals & Mining	5.3%	\$1.0	91.2	7.1	A3
BHP 5 09/30/43	Metals & Mining	3.4%	\$2.8	121.0	16.1	A1
EPD 7.034 01/15/68	Midstream	9.1%	\$0.8	214.5	3.0	BAA3
EPB 6 1/2 04/01/20	Midstream	3.6%	\$0.6	135.1	4.7	BAA3
PAA 3.65 06/01/22	Midstream	5.8%	\$0.8	106.0	6.7	BAA2
ETP 3.6 02/01/23	Midstream	6.1%	\$0.8	156.0	7.3	BAA3
SEP 4 3/4 03/15/24	Midstream	4.1%	\$1.1	129.0	7.7	BAA2
RIG 6 03/15/18	Oil Field Services	5.3%	\$1.1	157.1	3.2	BAA3
ESV 4.7 03/15/21	Oil Field Services	3.6%	\$1.6	136.3	5.6	BAA1
T 5.35 09/01/40	Wirelines	3.2%	\$3.8	165.8	14.9	A3
T 4.35 06/15/45	Wirelines	4.0%	\$2.9	148.9	16.7	A3
VZ 6.55 09/15/43	Wirelines	3.7%	\$13.4	175.1	14.6	BAA1
VZ 4.862 08/21/46	Wirelines	3.9%	\$4.6	155.6	16.7	BAA1
VZ 5.012 08/21/54	Wirelines	2.8%	\$5.6	164.8	17.7	BAA1
Portfolio			\$49.8	147.0	8.2	Baa1/Baa2
U.S. Corporate Index				103.4	7.9	A3/Baa1

Source: Barclays Research

Analyst Certification

I, Ryan Preclaw, CFA, hereby certify (1) that the views expressed in this research report accurately reflect my personal views about any or all of the subject securities or issuers referred to in this research report and (2) no part of my 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 a part of the Corporate and Investment Banking division of Barclays Bank PLC and its affiliates (collectively and each individually, "Barclays"). For current important disclosures regarding companies that are the subject of this research report, please send a written request to: Barclays Research Compliance, 745 Seventh Avenue, 14th Floor, New York, NY 10019 or refer to <http://publicresearch.barclays.com> or call 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 Fixed Income, Currencies and Commodities Division 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 represent current market levels, prices or spreads, some or all of which may have changed since the publication of this document. Barclays produces various types of research including, but not limited to, fundamental analysis, equity-linked analysis, quantitative analysis, and trade ideas. Recommendations contained in one type of research may differ from recommendations contained in other types of research, whether as a result of differing time horizons, methodologies, or otherwise. Unless otherwise indicated, Barclays trade ideas are provided as of the date of this report and are subject to change without notice due to changes in prices. In order to access Barclays Statement regarding Research Dissemination Policies and Procedures, please refer to <https://live.barcap.com/publiccp/RSR/nyfipubs/disclaimer/disclaimer-research-dissemination.html>. In order to access Barclays Research Conflict Management Policy Statement, please refer to: <http://group.barclays.com/corporates-and-institutions/research/research-policy>.

Other Material Conflicts

Barclays Bank PLC and/or an affiliate is providing investment banking services to Kinder Morgan Inc. (KMI) relating to its potential acquisition of all the outstanding equity securities of Kinder Morgan Energy Partners, L.P. (KMP), Kinder Morgan Management LLC (KMR) and El Paso Pipeline Partners (EPB). The ratings, price targets and estimates (as applicable) on KMI, KMP and EPB issued by the Firm's Research Department have been temporarily suspended due to Barclays' role in this potential transaction.

Disclaimer

This publication has been prepared by the Corporate and Investment Banking division of Barclays Bank PLC and/or one or more of its affiliates (collectively and each individually, "Barclays"). It has been issued by one or more Barclays legal entities within its Corporate and Investment Banking division as provided 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. Barclays will not treat unauthorized recipients of this report as its clients. 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 content of any third-party web site accessed via a hyperlink in this publication and such information is not incorporated by reference.

The views in this publication are those of the author(s) and are subject to change, and Barclays has no obligation to update its opinions or the information in this publication. The analyst recommendations in this publication reflect solely and exclusively those of the author(s), and such opinions were prepared independently of any other interests, including those of Barclays and/or its affiliates. This publication does not constitute personal investment advice or take into account the individual financial circumstances or objectives of the clients who receive it. The securities discussed herein may not be suitable for all investors. Barclays recommends that investors independently evaluate each issuer, security or instrument discussed herein and consult any independent advisors they believe necessary. 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.

This material has been issued and approved for distribution in the UK and European Economic Area ("EEA") by Barclays Bank PLC. It is being made available primarily to persons who are investment professionals as that term is defined in Article 19 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005. It is directed at, and therefore should only be relied upon by, persons who have professional experience in matters relating to investments. The investments to which it relates are available only to such persons and will be entered into only with such persons. 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 Corporate and Investment Banking division of Barclays 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 and member of IIROC (www.iiroc.ca).

Subject to the conditions of this publication as set out above, the Corporate & Investment Banking Division of Absa Bank Limited, an authorised financial services provider (Registration No.: 1986/004794/06. Registered Credit Provider Reg No NCRCP7), is distributing this material in South Africa. Absa Bank Limited is regulated by the South African Reserve Bank. This publication is not, nor is it intended to be, advice as defined and/or contemplated in the (South African) Financial Advisory and Intermediary Services Act, 37 of 2002, or any other financial, investment, trading, tax, legal, accounting, retirement, actuarial or other professional advice or service whatsoever. Any South African person or entity wishing to effect a transaction in any security discussed herein should do so only by contacting a representative of the Corporate & Investment Banking Division of Absa Bank Limited in South Africa, 15 Alice Lane, Sandton, Johannesburg, Gauteng 2196. Absa Bank Limited is a member of the Barclays group.

In Japan, foreign exchange research reports are prepared and distributed by Barclays Bank PLC Tokyo Branch. Other 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.

Information on securities/instruments that trade in Taiwan or written by a Taiwan-based research analyst is distributed by Barclays Capital Securities Taiwan Limited to its clients. The material on securities/instruments not traded in Taiwan is not to be construed as 'recommendation' in Taiwan. Barclays Capital Securities Taiwan Limited does not accept orders from clients to trade in such securities. This material may not be distributed to the public media or used by the public media without prior written consent of Barclays.

This material is distributed in South Korea by Barclays Capital Securities Limited, Seoul Branch.

All equity research material is distributed in India by Barclays Securities (India) Private Limited (SEBI Registration No: INB/INF 231292732 (NSE), INB/INF 011292738 (BSE) | Corporate Identification Number: U67120MH2006PTC161063 | Registered Office: 208 | Ceejay House | Dr. Annie Besant Road | Shivsagar Estate | Worli | Mumbai - 400 018 | India, Phone: + 91 22 67196363). Other research reports are distributed in India by Barclays Bank PLC, India Branch.

Barclays Bank PLC Frankfurt Branch distributes this material in Germany under the supervision of Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

This material is distributed in Malaysia by Barclays Capital Markets Malaysia Sdn Bhd.

This material is distributed in Brazil by Banco Barclays S.A.

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

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 distributed in Saudi Arabia by Barclays Saudi Arabia ('BSA'). It is not the intention of the publication to be used or deemed as recommendation, option or advice for any action(s) that may take place in future. Barclays Saudi Arabia is a Closed Joint Stock Company, (CMA License No. 09141-37). Registered office Al Faisaliah Tower, Level 18, Riyadh 11311, Kingdom of Saudi Arabia. Authorised and regulated by the Capital Market Authority, Commercial Registration Number: 1010283024.

This material is distributed in Russia by OOO Barclays Capital, affiliated company of Barclays Bank PLC, registered and regulated in Russia by the FSFM. Broker License #177-11850-100000; Dealer License #177-11855-010000. Registered address in Russia: 125047 Moscow, 1st Tverskaya-Yamskaya str. 21.

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 One Raffles Quay Level 28, South Tower, Singapore 048583.

Barclays Bank PLC, Australia Branch (ARBN 062 449 585, AFSL 246617) is distributing this material in Australia. It is directed at 'wholesale clients' as defined by 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 (2014). 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.

