

U.S. Equity Strategy

Trading growth for buybacks

Our core thesis on U.S. equities is that we have entered a period of lower returns as faster revenue growth becomes a prerequisite for another re-rating higher. Central to this thesis is slow top-line growth, which is unique to this recovery, although tangential is the use of cash flow, as companies decide between investing and returning capital to shareholders.

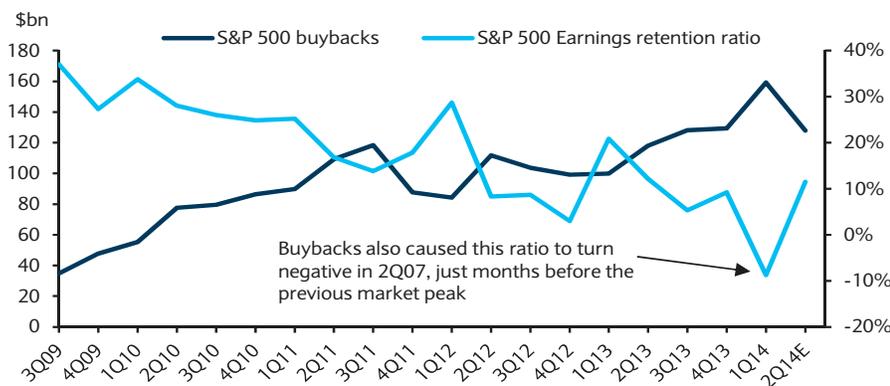
Buybacks are approaching previous peaks: S&P 500 companies continue to allocate a large share of cash flow to buybacks, with \$159bn of stock repurchased in 1Q14 alone, the second most on record. Preliminary data suggests the pace of repurchases remained high in the second quarter and the peak achieved in 2007 could soon be surpassed.

Buybacks have made stocks go up: Our analysis indicates that the share repurchase factor has consistently outperformed the market over the past five years, although recent performance has not been as good. Importantly, we find that the stocks of companies with high repurchases and high net income growth perform much better than companies with high repurchases and low net income growth. In other words, buybacks do not solve for slow growth.

Is there a downside? Share repurchases have contributed to rising stock prices, appeal to investors, and make economic sense given the financing environment. The downside risk is slower growth, as earnings retention has plummeted and growth in book value per share has stalled. Still, the price-to-book value ratio for the S&P 500 at 2.6x continues to expand. This would be more justified if return on equity was increasing, but it is not.

Conclusion: We expect less robust outperformance from the buyback factor and believe buybacks are unlikely to spur further expansion of valuation multiples. We reiterate our S&P 500 price targets of 1975 for 2014 and 2100 for 2015.

FIGURE 1
As buybacks have increased, earnings retention has moved lower, curtailing growth



Source: S&P, Haver Analytics, Barclays Research

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 the firm may have a conflict of interest that could affect the objectivity of this report.

Investors should consider this report as only a single factor in making their investment decision.

PLEASE SEE ANALYST CERTIFICATION(S) AND IMPORTANT DISCLOSURES BEGINNING ON PAGE 14.

MACRO STRATEGY

U.S. Equity Strategy

Jonathan Glionna

+1 212 526 5313

jonathan.glionna@barclays.com

BCI, New York

Eric Slover, CFA

1.212.526.6426

eric.slover@barclays.com

BCI, New York

View video 

Before we begin - a summary top down view

FIGURE 2
Our S&P 500 earnings and price targets

| Global GDP Growth | | |
|-------------------|------------------|------------------|
| 2014 = 3.2% | | 2015 = 3.6% |
| U.S. | Europe | Emerging Markets |
| 2014 2.0% | 2014 0.8% | 2014 4.7% |
| 2015 2.7% | 2015 1.4% | 2015 5.0% |

| S&P 500 | |
|--------------------------------|--------------------------------|
| 2014 | 2015 |
| Sales 1165 | Sales 1210 |
| Margin 10.0% | Margin 10.5% |
| EPS 117 | EPS 127 |
| X 16.9 | X 16.5 |
| S&P 500 Target: 1975 | S&P 500 Target: 2100 |

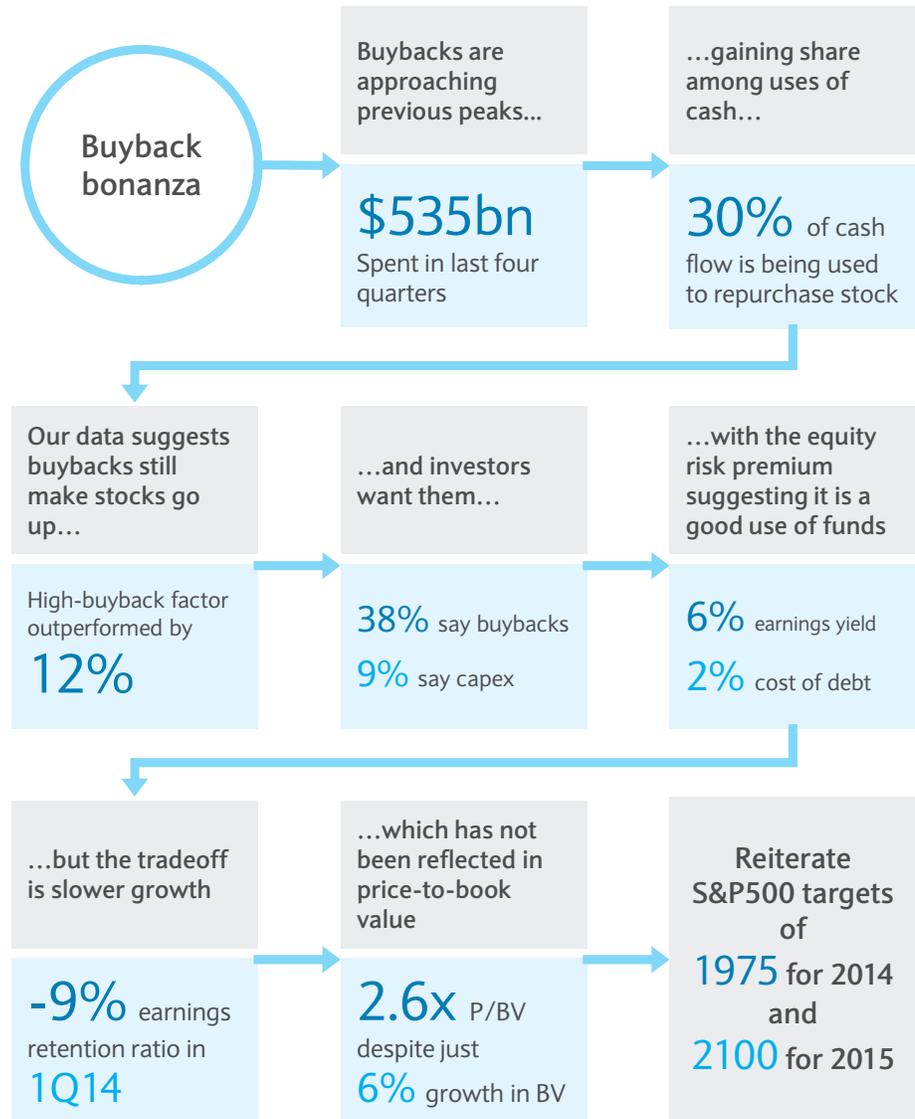
| Overweight Sectors | Market Weight Sectors | Underweight Sectors |
|------------------------|------------------------|---------------------|
| Financials | Utilities | Consumer Staples |
| Energy | Consumer Discretionary | Health Care |
| Information Technology | Materials | |
| Industrials | Telecommunications | |

Source: Barclays Research

Overweight - The performance of the S&P 500 sector is expected to outperform the performance of the S&P 500 index in the next 3–6 months. Market Weight - The performance of the S&P 500 sector is expected to perform in line with the S&P 500 index in the next 3–6 months. Underweight - The performance of the S&P 500 sector is expected to underperform the performance of the S&P 500 index in the next 3–6 months.

Our thought process on share repurchases

FIGURE 3
Summary of our view



Source: Barclays Research

Margin expansion and share repurchases are likely priced in

Hooked on share repurchases

Our core thesis on U.S. equities is that we have entered a period of lower returns as the benefits of margin expansion and share repurchases prove to be already priced in and a return of faster revenue growth becomes a prerequisite for another re-rating higher (see *U.S. Equity Strategy: Transitioning to lower returns*). Central to this thesis is slow top-line growth, which is unique to this recovery. The primary cause has been subdued global economic growth, with the U.S. expanding at just 2%, Europe below 1%, and even EM tracking slower.

But it is not just the economy, in our opinion. Another important consideration is the use of cash flow, as companies decide between investing for future growth and returning capital to shareholders. We note that capital expenditures are growing slowly while share repurchases are surging toward new records. Share repurchases are often cited as a leading cause of increased earnings per share, but we believe there is a downside, as organic growth opportunities are passed over.

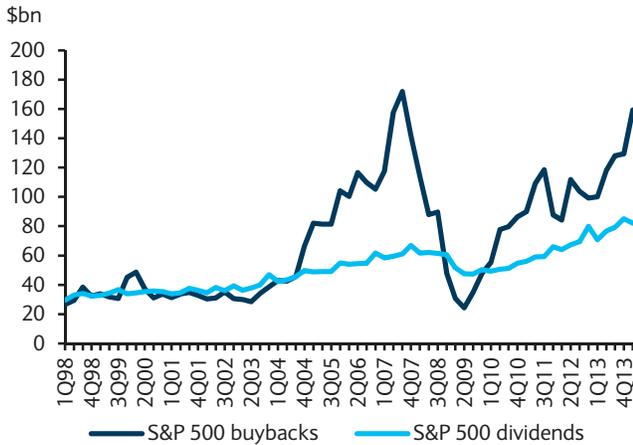
Capital expenditures are growing slowly while share repurchases are surging toward new records

Share repurchases are an increasingly popular way to return cash to shareholders. When balanced against dividends they have the advantage of better tax treatment and more flexibility. When considered against investing in long-term projects, they have the benefit of certainty and in many cases an immediate payoff in the form of higher earnings per share. What company does not believe their shares are an attractive investment and what could be a better way to prove it than executing a buyback, especially when there is ample free cash flow to fund it?

Buybacks are approaching previous peaks and will likely surpass them soon

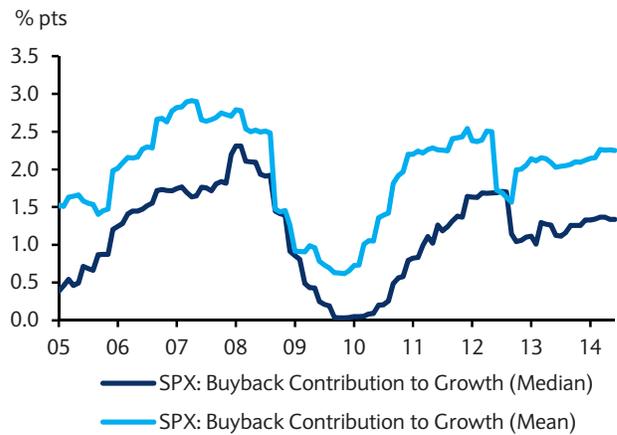
In the first quarter of 2014, S&P 500 companies repurchased \$159bn of stock, the most since the third quarter of 2007 (Figure 4) and the second highest quarterly total on record, by our calculations. Back in 2009, repurchases were less than \$50bn per quarter. Since then the growth rate has been strong, and we predict the peak achieved in 2007 will soon be surpassed, although it does not appear to have occurred in the second quarter, based on preliminary data. We estimate that share repurchases have been boosting earnings per share growth by 100bp for the median S&P 500 company (Figure 5). Buybacks are adding more than \$2 per share to earnings at the index level, by our calculations, equating to roughly 200bp of accretion.

FIGURE 4
Repurchases are nearing prior cycle highs, far outpacing growth in dividends



Source: S&P, Haver Analytics, Barclays Research

FIGURE 5
Gross repurchases boosted earnings growth by 100 bp for the median company in the S&P 500



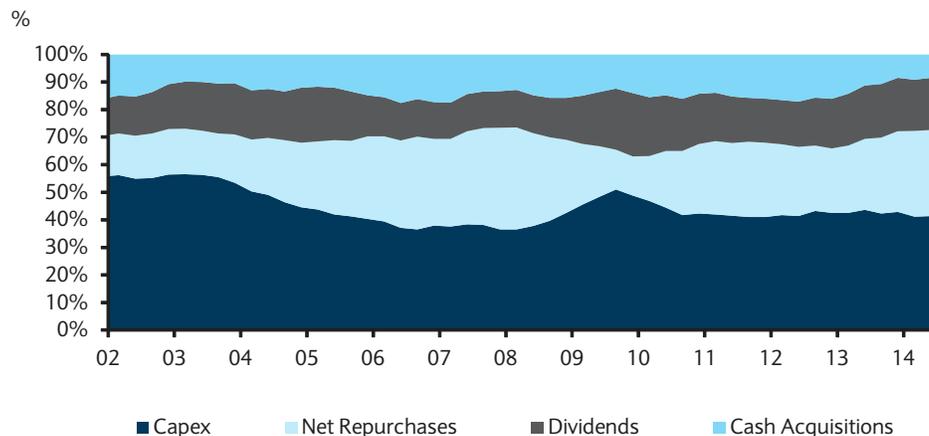
Source: Barclays Research

The portion of cash flow allocated to buybacks has increased to more than 30%

Buybacks have captured a larger share of cash flow spending

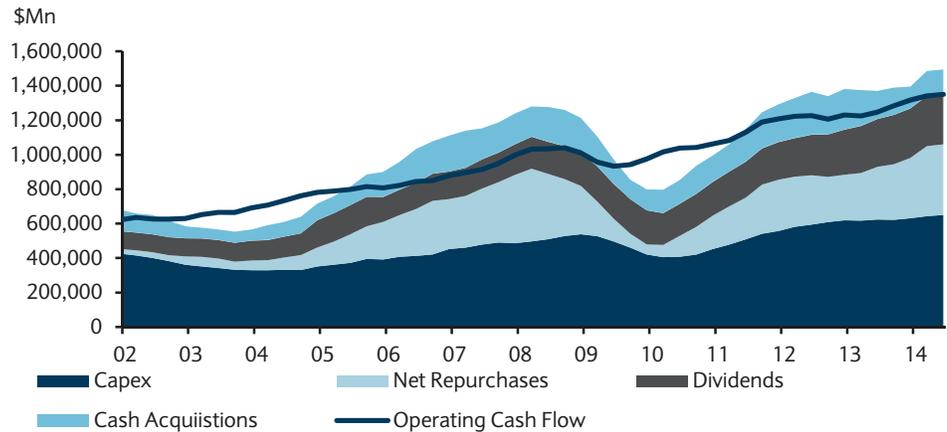
Our analysis of S&P 500 cash flow statements shows that repurchases are absorbing an increasing amount of discretionary cash flow. Repurchases are historically the most elective use of cash flow, typically taking a secondary role to dividend payments, which nowadays seem obligatory to maintain outside of financial stress, and investments such as capital expenditures or cash-funded acquisitions. In Figure 6 we display a common size use of cash flow for the S&P 500 and we note that the portion allocated to repurchases has increased to more than 30%, nearly twice what it was in 2002. The portion allocated to capital expenditures has remained stable at approximately 40%, although this is down from more than 50% back in the early 2000s. Figure 7 presents the same data in absolute amounts, showing that cash flow has increased materially in the last five years, allowing all uses of cash to grow, although share repurchases have experienced the largest expansion.

FIGURE 6
Repurchases are absorbing an increasing amount of cash flow (use as a % of cash flow)



Source: Barclays Research

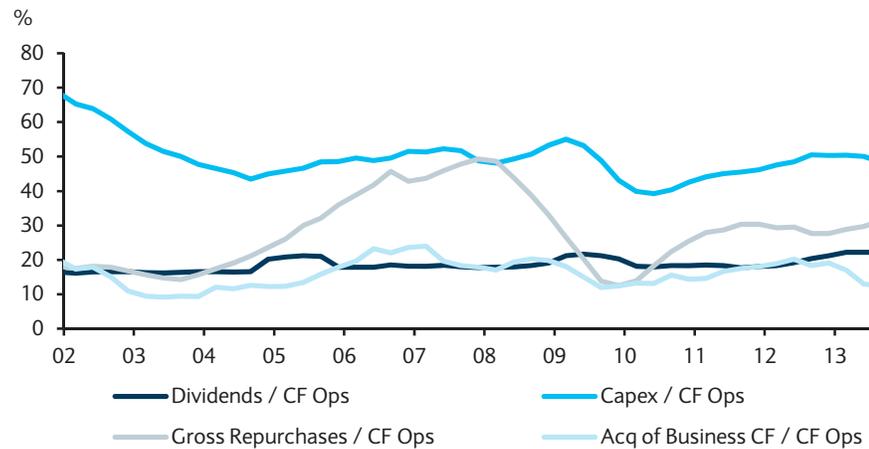
FIGURE 7
Share repurchases have shown the largest expansion since the financial crisis, \$mn



Source: Barclays Research

One use of cash that has not expanded is acquisitions. The pattern of M&A often resembles the pattern of share repurchases, increasing toward the top of the cycle and sharply falling once an economic slump sets in. This cycle has not been different. The number of announced M&A transactions has increased alongside share repurchases, with the six month moving average of completed deals close to the previous cycle peak achieved in 2006. But most of these acquisitions are being paid for with stock, and the portion of cash flow being allocated to acquisitions has actually declined. Figure 8 shows that the portion of cash flow allocated to dividends and capital expenditures has remained relatively constant, while share repurchases have taken ground from acquisitions.

FIGURE 8
Share repurchases have largely taken share from cash-based acquisitions



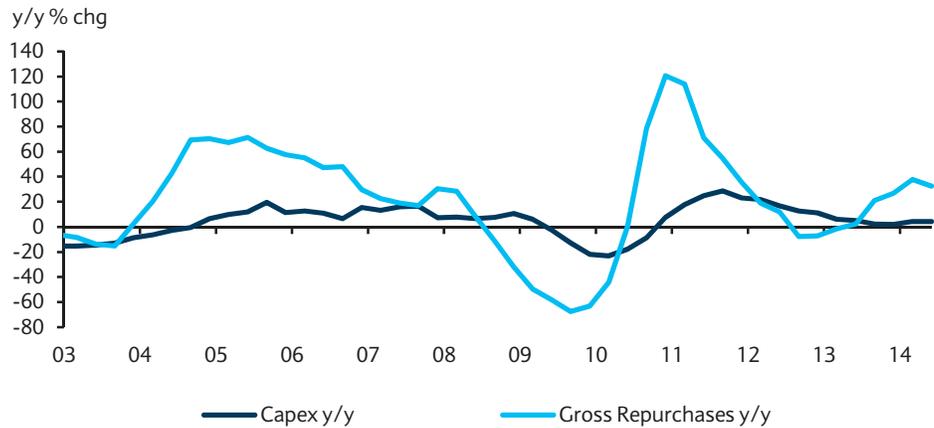
Source: Barclays Research

The growth rate of capex has been around 5% while the growth rate of share buybacks has been far higher

As mentioned, capital expenditure remains the top form of cash flow spending, still in front of share repurchases. This masks the trajectory of capex, however, as the growth rate has been poor. We show this in Figure 9, which demonstrates that the growth rate of capital expenditure has been hovering around 5%, still not reflecting the recovery in investment that is expected to occur. Meanwhile, the growth rate of share repurchases has been far higher. The volatility of these two lines is indicative of the different speeds at which capital expenditures and repurchases can be expanded or curtailed. It typically takes a substantial

amount of time to alter capex plans while share repurchases require little more than a board meeting to be approved and can be abandoned immediately, if desired.

FIGURE 9
The growth rate of capital expenditure has been slow in relation to share repurchases



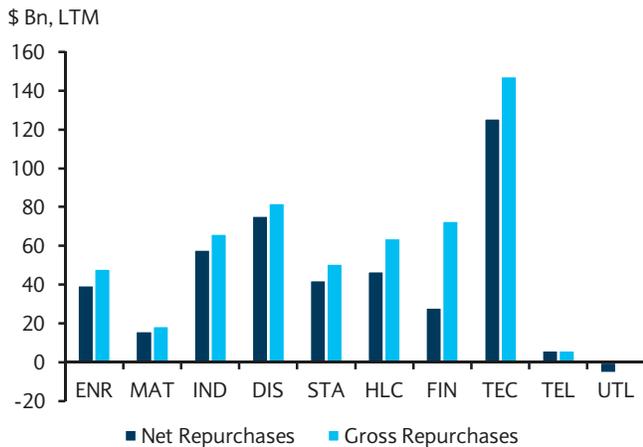
Source: Barclays Research.

We estimate ~26% of buybacks are done by the technology sector, twice as much as the next largest sector

Buybacks are not evenly distributed by sector

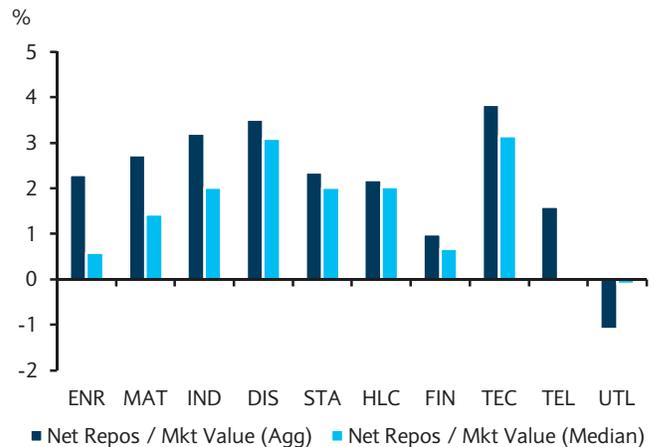
When it comes to buying back stock, not all sectors are created equal. In fact, there is a clear champion: the technology sector. As we show in Figure 10, the technology sector spends almost twice as much on share repurchases than the next largest sector in the market. We estimate approximately 26% of buybacks are done by the technology sector. Apple and IBM spent more on buybacks than any other companies in the S&P 500 over the last twelve months and they alone account for 40% of the \$125bn of net repurchases done by the technology sector. Now, the technology sector is also the largest sector in the S&P 500 based on market capitalization, and when adjusted for this its efforts to buy back stock are less outsized. In fact, the consumer discretionary sector is just as active when measured on this basis (Figure 11). Another sector that is noteworthy is energy, where repurchases totaled approximately \$50bn over the last twelve months. What makes it noteworthy is that the bulk of these buybacks were done by just one company, Exxon, while the median company repurchased a modest amount. We believe this highlights the disparate use of cash among energy verticals.

FIGURE 10
The technology sector buys back the most stock...



Source: Barclays Research. Note: Trailing 12 month repurchases

FIGURE 11
...although it is not as outsized in relation to market cap



Source: Barclays Research. Note: Trailing 12 month repurchases and 12 month average market value

Repurchases continue to show outperformance

Companies with high share repurchases have significantly outperformed their peers since mid-2008, despite a few periods when the strategy stagnated or fell slightly. In 2013, a strategy of buying the highest repurchasers outperformed by the largest margin since the initial stages of the recovery, concurrent with S&P 500's highest annual returns since 2009. The strategy faltered at the beginning of 2014 (Figure 12).

FIGURE 12
The top share repurchasers outperformed in 2013 by the largest margin since 2009



Source: FactSet, Barclays Research

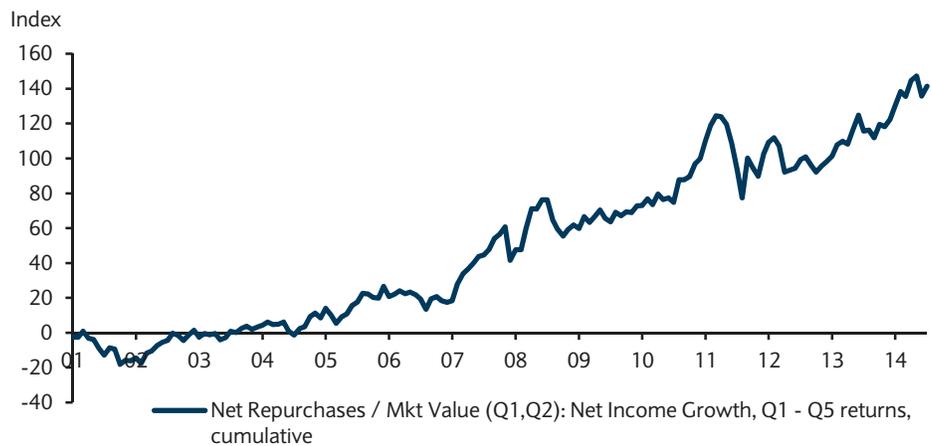
To better assess the efficacy of a share repurchase approach, we tested multiple strategies of buying the top quintile of share repurchasers and selling the bottom quintile. Our repurchase ranking methodology included gross and net repurchases relative to market capitalization as well as cash flow. While each iteration showed a similar trend, net repurchases (trailing 12 month sum) as a percent of market value (12 month average) showed the most significance in our model, was the least prone to skew from negative values (e.g., negative cash flow), and showed the highest cumulative returns. **Importantly, we find that the stocks of companies with high repurchases and high net income growth**

High repurchases have provided positive and significant contributions to returns through most of the recovery

perform much better than companies with high repurchases and low net income growth. In other words, buybacks do not solve for slow growth (Figure 13).

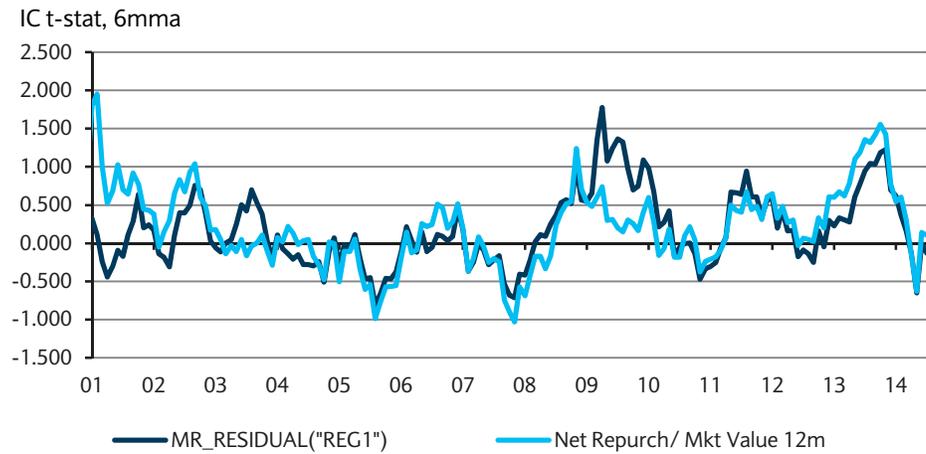
We also evaluated unintended biases on factors by creating size, value, momentum, and sector neutral portfolios in order to better isolate the impact of repurchases on performance. The bottom line is that repurchase factor returns are not dictated by other factors. But the tracking error among our repurchase factors highlights the periodic influence of other factors, with the run-up in 2013 a case in point. Tests of factor significance unsurprisingly show that the predictive value of the repurchase factor ebbs and flows; however, unlike the prior cycle, high repurchases have provided positive and significant contributions to returns through most of the recovery (Figure 14). Our repurchase factors peaked most recently at the end of 2013 before falling out of favor in 1H14 as the factor underperformed and its significance fell sharply negative. However, in recent months the strategy shows signs of stabilization.

FIGURE 13
Growth matters – companies with high repurchases and high net income growth outperform companies with high repurchases and low net income growth



Source: FactSet, Barclays Research

FIGURE 14
Repurchase outperformance peaked at the end of 2013 and fell out of favor in 1H14

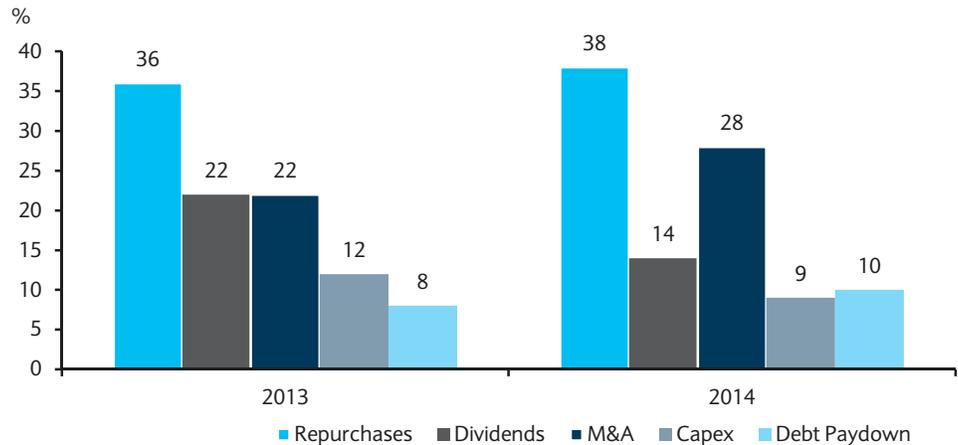


Source: FactSet, Barclays Research. Note: The Information Coefficient ("IC") measures a factor's correlation with (subsequent) returns; specifically, it is the correlation between the factor rank and the return rank for all companies in the period's cross section. The IC is between -1 and +1; a strong positive (negative) IC suggests companies with high factor values tend to yield high (low) returns. The t-stat measures the significance of the IC.

Surveys indicate that investors want buybacks more than dividends or capital expenditures

As we have shown, the common stock of companies involved in buybacks has outperformed. This implies that investors view buybacks as a good use of cash, and want to invest in companies that are returning capital to shareholders in this way. This is corroborated by survey data that also shows a preference for share repurchases compared to other uses of cash. Figure 15 is a reprint of survey data from the Barclays 2014 Industrial Select conference. The responses show a clear preference for repurchases, especially in relation to capital expenditures. We note that recent conversations with our industrials analysts signal that companies are shifting their preference from buybacks toward acquisitions, although we do not have confirmation of this change in preference from investors.

FIGURE 15
What do investors want industrials companies to do with excess cash?



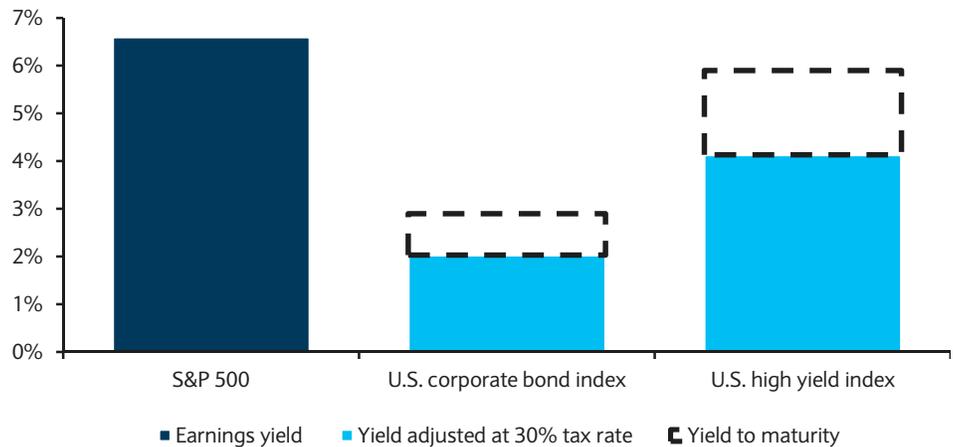
Source: 2014 Industrial Select Conference Sentiment Data, Barclays Research

The equity risk premium suggests buybacks are a good use of funds

The debt markets are a cheap way to finance share repurchases

One strong argument for repurchasing shares is the cheap cost of debt financing and the gap between earnings yields and debt yields. As shown in Figure 16, U.S. corporate bonds yield less than 3% and the high yield market yields less than 6%. This implies an after tax cost of debt financing of just 2% for an investment grade company and 4% for a high yield company. At the same time, the earnings yield of the S&P 500 is more than 6%, signaling that debt financed share repurchases are likely to be immediately accretive to earnings per share. This positive arbitrage has been available throughout the recovery, although we note the difference is now less than it was in 2012 and 2013.

FIGURE 16
The after-tax cost of debt is well below the earnings yield on equity



Source: Barclays Research

What is the downside?

As discussed, share repurchases have contributed to rising stock prices, are aligned with investor demands, and make economic sense given the financing environment. Could there be a downside? We believe there is. Share repurchases also lower future growth, as less capital is reinvested in the business. As shown in the graphic below, when return on equity

is stable, growth is directly linked to the portion of earnings that are retained. In other words, a company that retains all of its earnings will grow at a rate equal to its return on equity while a company that pays out all of its earnings through dividends and share repurchases will not grow at all. This is based on the classic corporate finance equation that states that growth equals return on equity multiplied by one minus the payout ratio.



The combination of steadily increasing dividends and rapidly increasing share repurchases caused the earnings retention ratio of the S&P 500 to turn negative

Two things must be considered to determine if the increase in buybacks is lowering growth. First, it must be determined if repurchases are increasing the payout ratio, as opposed to simply growing with earnings or substituting for dividends. Second, return on equity must be considered, as an increase in return on equity can offset a decline in earnings retention.

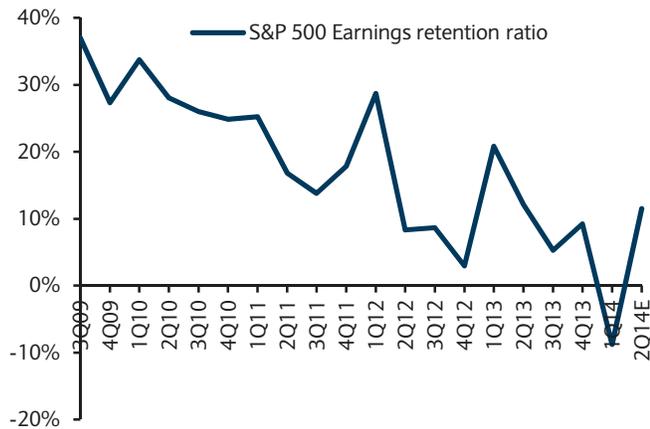
As indicated in Figure 17, share repurchases are growing faster than earnings and are not substituting for dividends, leading to a higher payout ratio to shareholders. This was obvious from earlier charts that showed that dividends have also been steadily increasing. The combination of steadily increasing dividends and rapidly increasing share repurchases caused the earnings retention ratio of the S&P 500 to turn negative in 1Q14 for the first time since the financial crisis. The last time earnings were increasing and this ratio was negative was the second quarter of 2007, coinciding with the last surge in share repurchases and just months before the previous market peak.

To maintain growth, a low earnings retention ratio can be offset by an increase in return on equity. Unfortunately, we find there has been no sustained increase in return on equity for the S&P 500. Figure 18 displays the return on equity ratio of the S&P 500 and while there have been large cyclical swings there is no discernible improvement in relation to other cycles. In fact, it could be argued from the graph that return on equity this cycle has peaked at a lower level than previous cycles. Over the past 40 years the return on equity of the S&P 500 has averaged 13%, similar to the current ratio of 14%.

Book value per share for the S&P 500 was growing at more than 10% in 2010, but has slowed to just 6% recently

While the equation above that related growth to return on equity and earnings retention is theoretical, we can determine with actual data if the growth rate of the S&P 500 has declined. In Figure 19 we display the annual increase in book value per share for the S&P 500 and as shown, it has clearly deteriorated. While book value per share was increasing at more than 10% as the S&P 500 recovered from the financial crisis in 2010, the recent growth rate has slowed to just 6%. We believe this is indicative of more limited investment in operations and more focus on share repurchases. Buying back a near-record amount of stock in a market that trades at 2.6x book value is certain to decrease the growth in book value per share, all else being equal. Still, it is noteworthy that the S&P 500 price to book value ratio has continued to move higher, despite the reduction in the growth rate of book value per share.

FIGURE 17
Earnings retention has plummeted...



Source: S&P, Haver Analytics, Barclays Research

FIGURE 18
...and there has not been an offsetting improvement in ROE



Source: Compustat, Barclays Research

FIGURE 19
The growth rate of book value per share has declined yet price to book is higher



Source: S&P, Haver Analytics, Barclays Research

Conclusion – reiterate S&P 500 price targets of 1975 for 2014 and 2100 for 2015

As we have written previously, we believe organic revenue growth is the missing ingredient for the S&P 500 and that further advances will be constrained by this lack of growth, with high profit margins and record share repurchases already priced in. One of the reasons that revenue growth is slow, in our opinion, is because companies have been allocating large amounts of cash flow to share repurchases rather than reinvesting in the business. While the preference for buybacks among investors and the success of the buyback factor remain, we believe the tide may be turning. Going forward, we believe the outperformance of the buyback factor will be less robust. This view incorporates the weaker performance exhibited already in 2014 and the higher valuations in the market, which make buybacks less effective. In addition, during this cycle we find that the buyback factor has worked best in periods when the market was advancing rapidly, such as 2013 – but we do not forecast another rally of that magnitude. Importantly, we find that the stocks of companies with high repurchases and high net income growth perform much better than companies with high repurchases and low net income growth. In other words, buybacks do not solve for slow growth. We are reiterating our S&P 500 price targets of 1975 for 2014 and 2100 for 2015.

ANALYST(S) CERTIFICATION(S):

I, Jonathan Glionna, 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.

The analysts responsible for preparing this research report have received compensation based upon various factors including the firm's total revenues, a portion of which is generated by investment banking activities.

Analysts regularly conduct site visits to view the material operations of covered companies, but Barclays policy prohibits them from accepting payment or reimbursement by any covered company of their travel expenses for such visits.

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>.

The Corporate and Investment Banking division of Barclays produces a variety of research products including, but not limited to, fundamental analysis, equity-linked analysis, quantitative analysis, and trade ideas. Recommendations contained in one type of research product may differ from recommendations contained in other types of research products, whether as a result of differing time horizons, methodologies, or otherwise.

Risk Disclosure(s)

Master limited partnerships (MLPs) are pass-through entities structured as publicly listed partnerships. For tax purposes, distributions to MLP unit holders may be treated as a return of principal. Investors should consult their own tax advisors before investing in MLP units.

Explanation of the U.S. Equity Strategy sector rating system:

Overweight: The performance of the S&P 500 sector is expected to outperform the performance of the S&P 500 index in the next 3–6 months.

Market Weight : The performance of the S&P 500 sector is expected to perform in line with the S&P 500 index in the next 3–6 months.

Underweight: The performance of the S&P 500 sector is expected to underperform the performance of the S&P 500 index in the next 3–6 months.

Barclays offices involved in the production of equity research:

London

Barclays Bank PLC (Barclays, London)

New York

Barclays Capital Inc. (BCI, New York)

Tokyo

Barclays Securities Japan Limited (BSJL, Tokyo)

São Paulo

Banco Barclays S.A. (BBSA, São Paulo)

Hong Kong

Barclays Bank PLC, Hong Kong branch (Barclays Bank, Hong Kong)

Toronto

Barclays Capital Canada Inc. (BCCI, Toronto)

Johannesburg

Absa Bank Limited (Absa, Johannesburg)

Mexico City

Barclays Bank Mexico, S.A. (BBMX, Mexico City)

Taiwan

Barclays Capital Securities Taiwan Limited (BCSTW, Taiwan)

Seoul

Barclays Capital Securities Limited (BCSL, Seoul)

Mumbai

Barclays Securities (India) Private Limited (BSIPL, Mumbai)

Singapore

IMPORTANT DISCLOSURES CONTINUED

Barclays Bank PLC, Singapore branch (Barclays Bank, Singapore)

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.

