



## ECB Stimulus Adds To Growth Concerns

**This is not the first time that ECB “stimulus” has been met with an equity market selloff**

Equities sold off sharply after the ECB’s latest policy easing announcement this week surprised markets. We note that since the ECB adopted negative rates in 2014, 6 out of the 7 ECB easing announcements have been followed by a sell-off in European equities. Relative to US equities the underperformance on past occasions is even starker. The one exception when European equities outperformed was the Jan 2015 QE announcement which coincided with a strong turn up in European data surprises which was already underway ( [DB: When Central Bank Actions Have Larger And Opposite Reactions, Feb 2016](#) ).

**But modest equity market sell-offs of 3-5% every 2-3 months are normal**

Historically, the S&P 500 has pulled back 3-5% every 2-3 months on average. The gap since the December sell-off at about 2 ½ months puts the current episode right at the average. Larger sell-offs of 5% or more typically occur every 4-5 months on average.

**US data surprises have turned negative but their typical cycle is generally associated with a relatively modest 2-3% pullback**

Equities have a strong positive trend over time, which reflects growth in earnings (or their macro counterpart real growth and inflation), while data surprises by contrast display alternating positive and negative cycles around zero. Adjusted for the trend, equities are well correlated with US data surprises. With data in the US surprising to the downside recently how much of a pullback do they imply? A typical negative data phase is associated with a relatively modest 2-3% decline ( [DB: How Much Of A Pullback Do Negative Data Surprises Imply, May 2017](#) ). Also, while US data surprises are turning down, data surprises in Europe and EM, the major source of weakness in growth for most of last year, have now turned positive.

**Prior positioning and flows matter for the size and duration of a potential sell-off**

An overhang in the form of elevated equity positioning or large prior inflows can exacerbate a selloff. However over the last 5 months, US (-\$102bn) and global (-\$139bn) equity funds have seen massive outflows which have persisted even as the market rallied ytd. From a positioning point of view, fund exposures have been rising but are still in the middle of their historical range in our estimate. Equity futures long positioning is in the middle of its range. Across funds, Vol Control funds are near full equity allocations which can be unwound if vol rises; CTAs are net long the S&P 500 but less crowded than in 2018; leverage for Risk Parity

[Parag Thatte](#)

Strategist

+1-212-250-6605

[Hallie Martin](#)

Strategist

+1-212-250-7994

[Srineel Jalagani, CFA](#)

Strategist

+1-212-250-4509

[Binky Chadha](#)

Chief Strategist

+1-212-250-4776

8 March 2019

Investor Positioning and Flows



funds is still low relative to the historical range; Equity L/S funds continue to add Gross Leverage but have cut Net Exposure.

#### Systematic strategies

- **Risk from Vol Control is to the downside.** Vol Control funds were quiet until late this week when there was some incremental selling of equities as VIX jumped from 13.6 to 17.9 week-over-week. Realized vol metrics also started to climb with the market down 5 days in a row and the size of those moves increasing at the end of the week. 1M realized vol is still below 10, however time-weight metrics rose more quickly. Vol Control funds are near full equity allocations, so risk is to the downside on a more significant vol spike.
- **CTAs are net long S&P 500 but less crowded than in 2018.** We believe CTAs are in aggregate net long S&P 500 and other equity indices. With S&P 500 breaking below its 200d MA (sell signal) and the 50d MA crossing the 100d MA (buy signal), S&P 500 sits near common technical triggers. Depending on which direction the market moves, we could see buying or selling of S&P 500. However aggregate CTA beta to S&P 500 is much lower than it was in 2018. Therefore downside risk from CTA selling is more limited.
- **Risk Parity is not a source of downside risk.** Risk Parity managers only started to re-allocate to equities in the past 2-3 weeks, as volatility of the cross asset portfolio moderated. Leverage is still low relative to its historical range, and equity allocations in particular are quite low. Risk Parity managers have significant discretion, so we expect that many paused in buying equities as realized volatility of equities picked up this week. However equity correlation with fixed income stayed strongly negative, mitigating the pick-up in volatility of the cross asset portfolio.

#### Equity L/S Hedge Funds continue to add gross leverage but cut net exposure

Hedge Funds continue to add gross leverage but have cut their net beta exposure to the market in recent weeks. Popular shorts underperformed, but overall returns were down slightly week-over-week. YTD returns are still strongly positive at +4.9%.

#### Latest CFTC data shows continued covering of short positions in US rates; rising dollar and oil longs

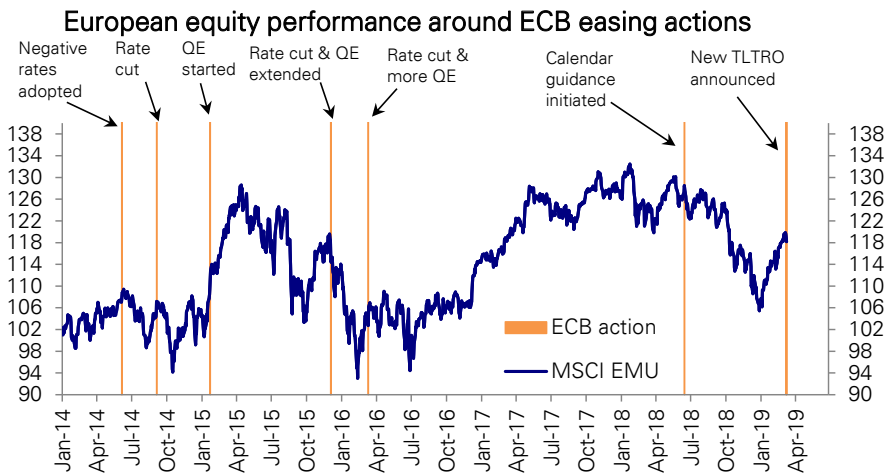
With CFTC data releases having “caught up”, the latest data shows shorts on Eurodollar futures continued to be covered this week, rose slightly in the 2y and 5y and were mostly flat in the 10y and higher maturities (data as of Tuesday Mar 5th). Within FX, Euro shorts continued to rise ahead of the ECB meeting and were at 2 year highs; shorts also rose in the yen and the Aussie dollar, continued to be pared in GBP and were flat elsewhere. Within commodities, oil longs continued to climb, copper positions which turned for the first time since June two weeks ago, rose further; gold longs on the other hand fell sharply.

8 March 2019

Investor Positioning and Flows

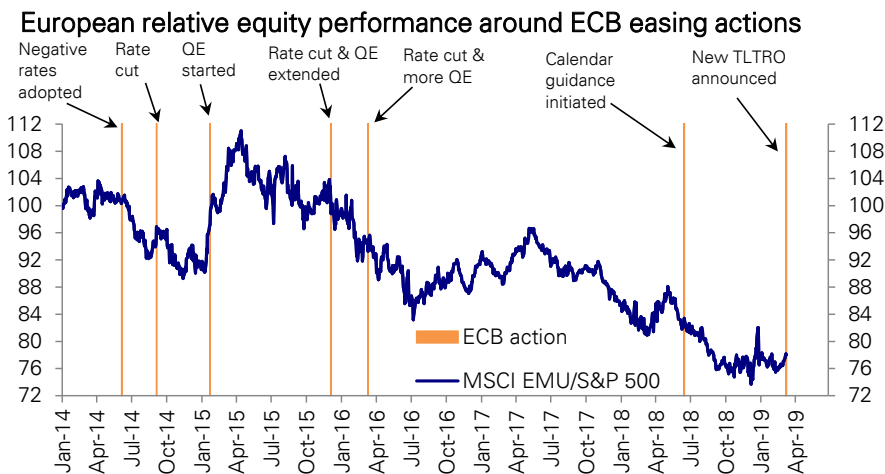


Figure 1: 6 out of the 7 ECB easing announcements have been followed by a sell-off in European equities



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Haver

Figure 2 The underperformance relative to US equities is even starker



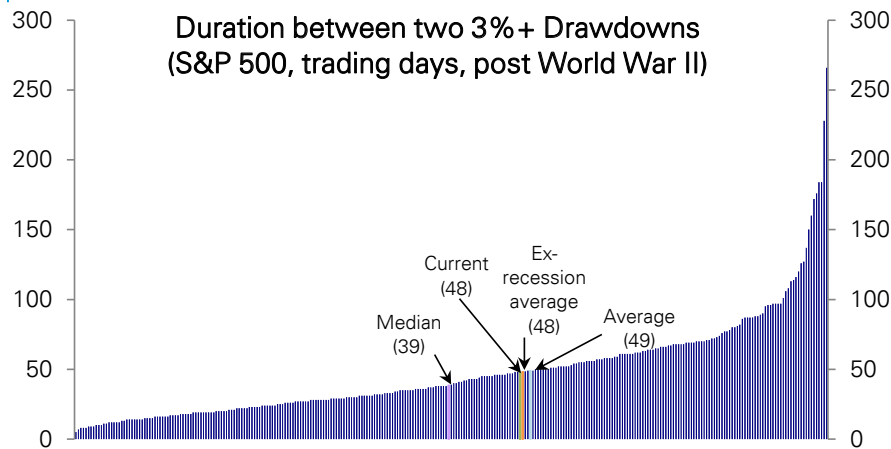
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Haver

8 March 2019

Investor Positioning and Flows

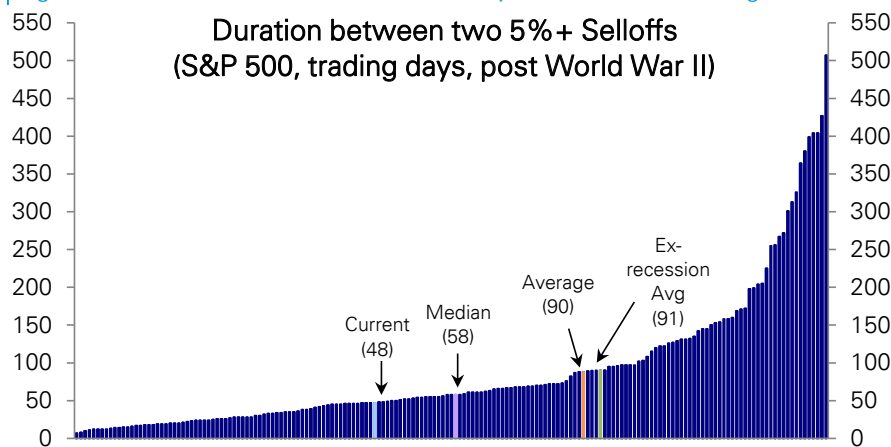


Figure 3: Modest equity sell-offs typically occur every 2-3 months on average



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Haver

Figure 4: Sell-offs of 5% or more occur every 4-5 months on average



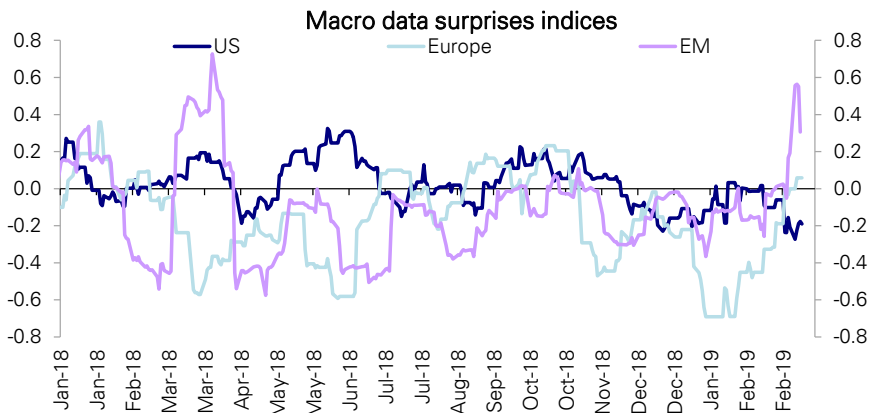
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Haver

8 March 2019

# Investor Positioning and Flows

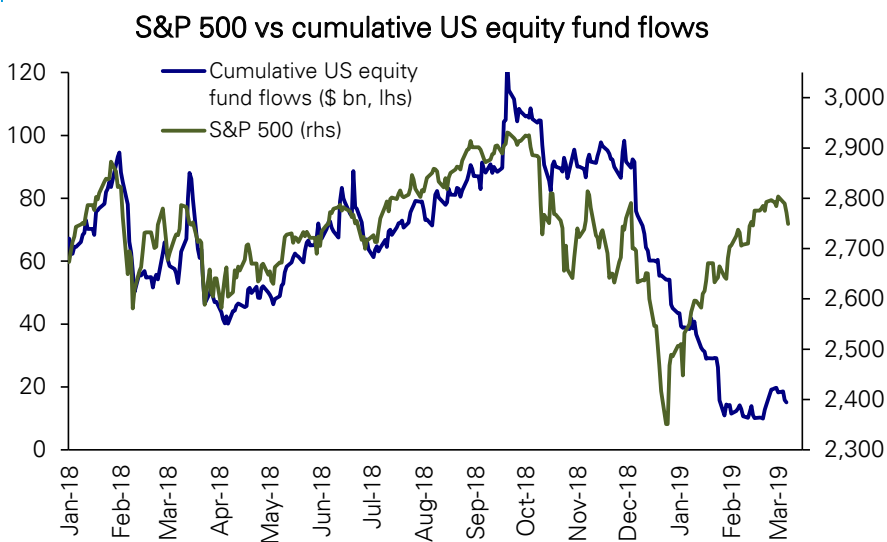


Figure 5: Data surprises in the US have turned negative but in EM and Europe turned positive



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Haver

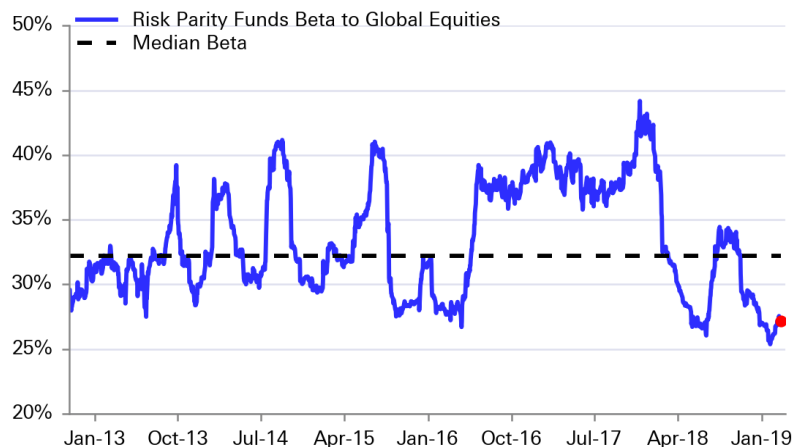
Figure 6: Despite rally this year there have been no inflows into equity funds



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Haver, EPFR

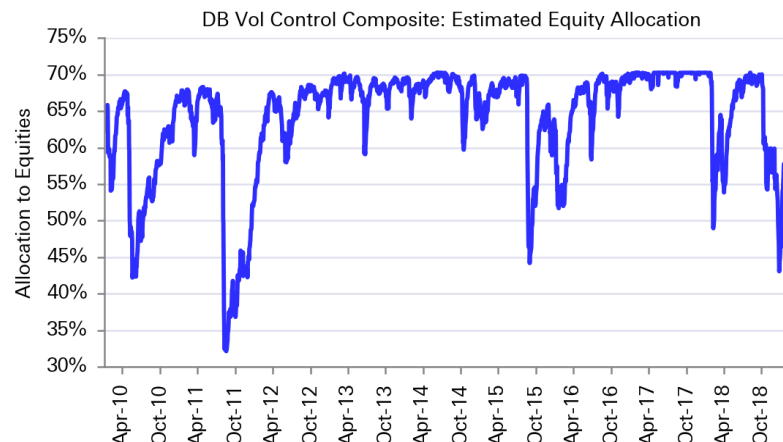
## vFLARE: Volatility-Sensitive Systematic Strategies

Figure 7: Downside risk from Risk Parity is low, as their equity allocations are at the low end of their historical range



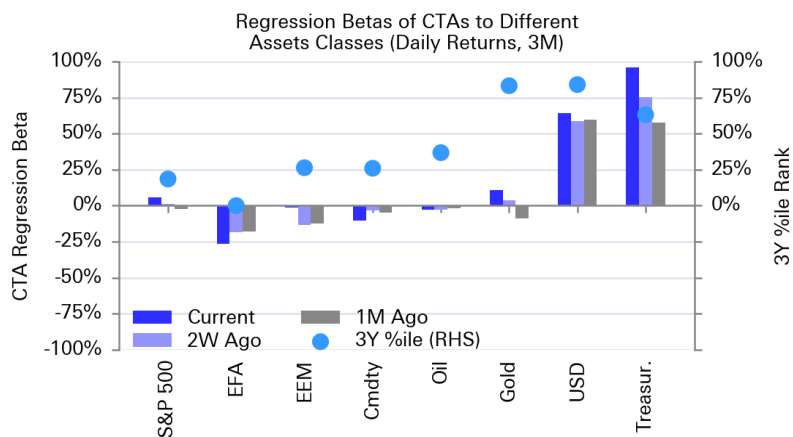
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, SEC filings, Bloomberg Finance LP, Data as of 6-Mar-19

Figure 8: With equity allocations near their maximum, risk from Vol Control is to the downside on a more significant vol spike



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, SEC filings, Bloomberg Finance LP, Data as of 6-Mar-19

Figure 9: CTAs are net long S&P 500 and Treasuries



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, SEC filings, Bloomberg Finance LP, Data as of 6-Mar-19

Figure 10: However CTA exposure to S&P 500 is still much lower than in 2017-2018

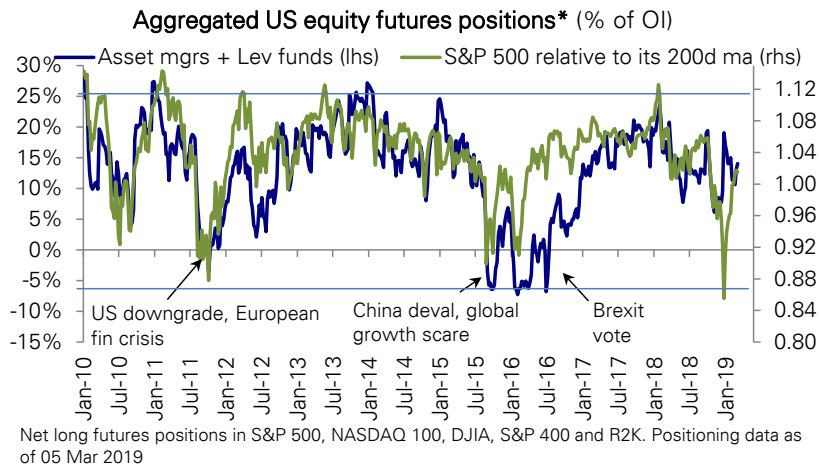


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, SEC filings, Bloomberg Finance LP, Data as of 6-Mar-19



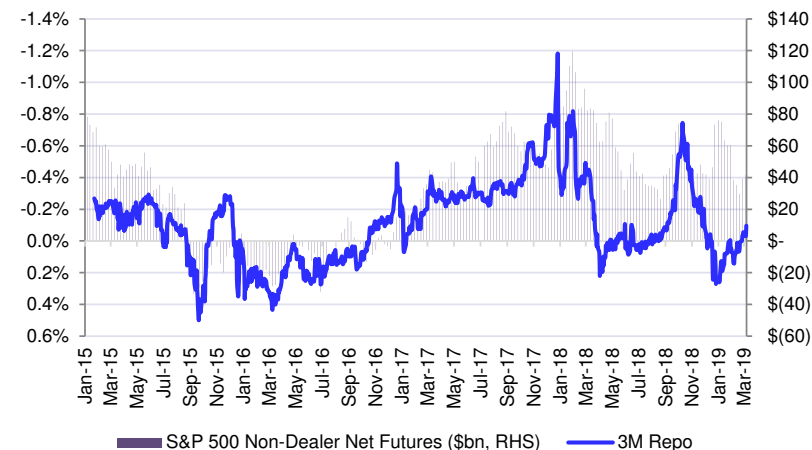
## S&P 500 futures liquidity remains low, and flows have been weak relative to price action

Figure 11: Equity futures positioning de-correlated from price action in January & February



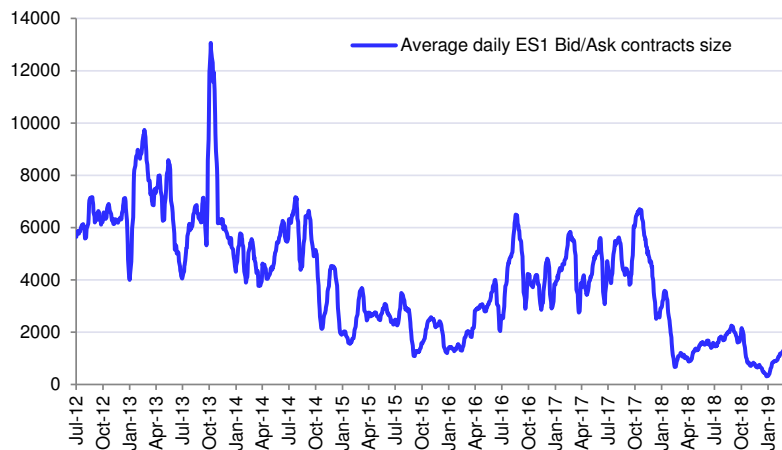
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19.

Figure 12: Implied financing spreads (inverse repo) have widened but remain low



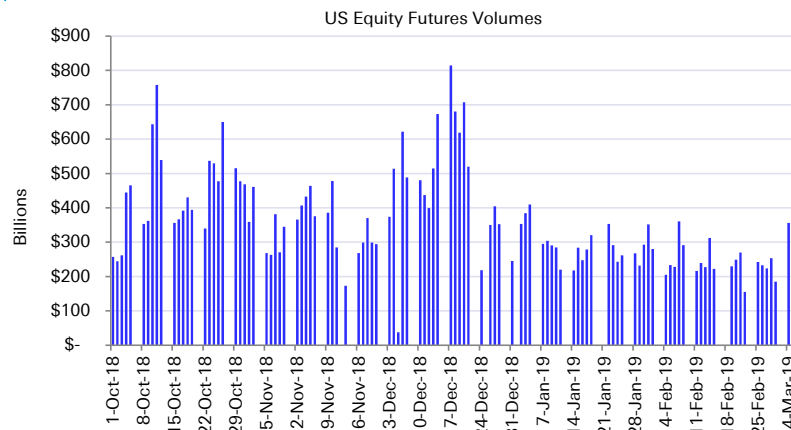
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Data as of 7-Mar-19.

Figure 13: Order book depth for ES1 futures has retraced back to mid-2018 levels, but is still very low



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Data as of 7-Mar-19.

Figure 14: US equity futures volumes picked up with \$500bn traded on Thursday, the highest YTD

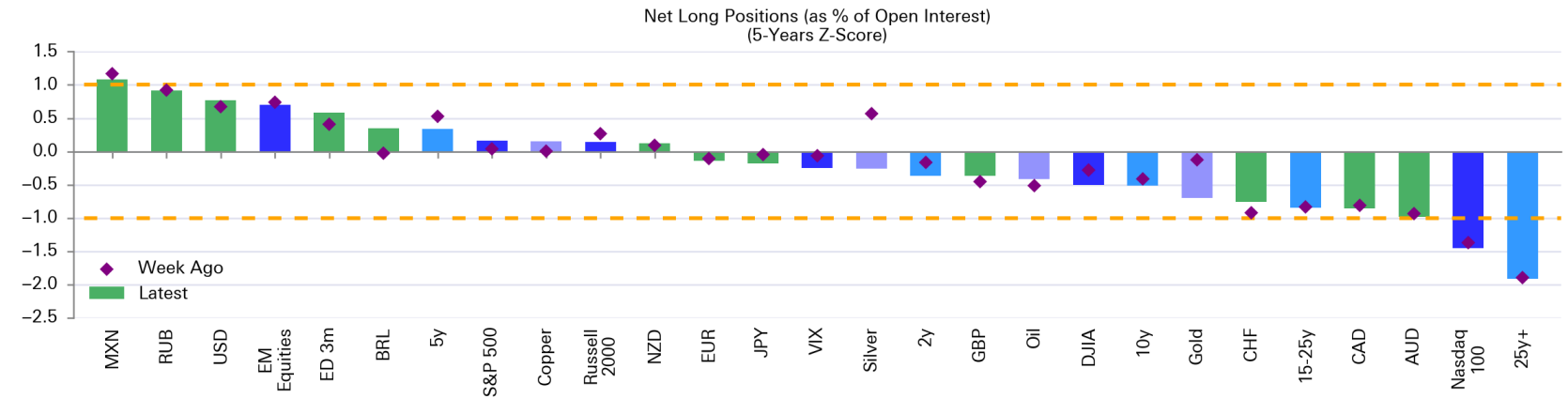


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Factset, Reuters, Bloomberg Finance LP, Data as of 7-Mar-19.



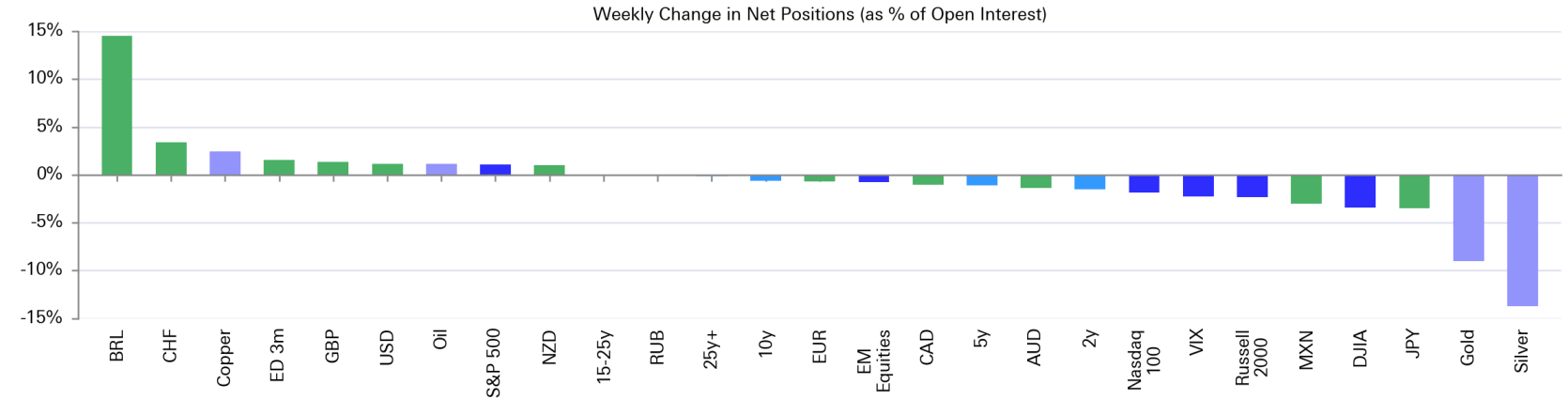
Cross-Asset Futures Positioning and Flows

Figure 15: Investor positioning in cross asset futures as of February 19<sup>th</sup>



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19.

Figure 16: Week-over-week changes in futures positioning



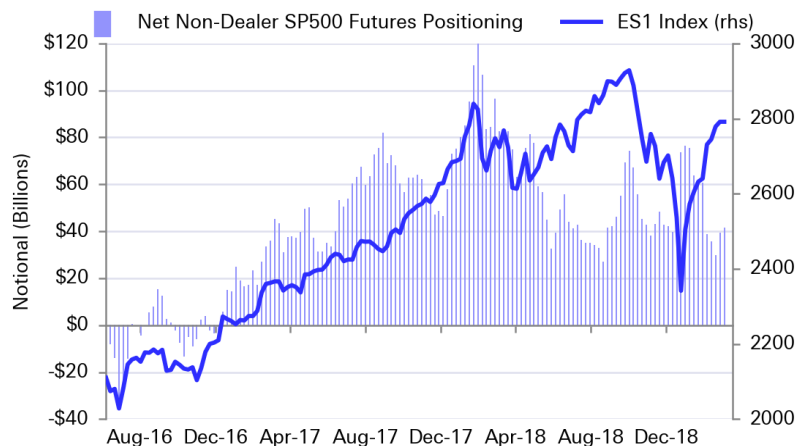
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19.





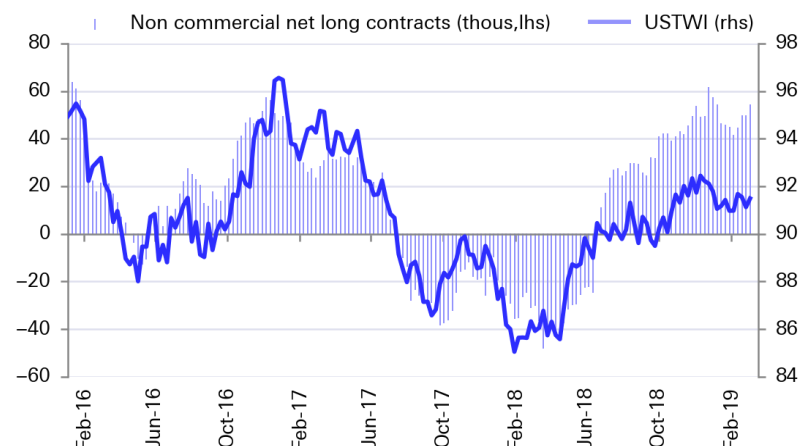
## Futures Positioning: US Equities, USD, WTI Oil, & 10Y Treasuries

Figure 17: S&P 500 futures positioning



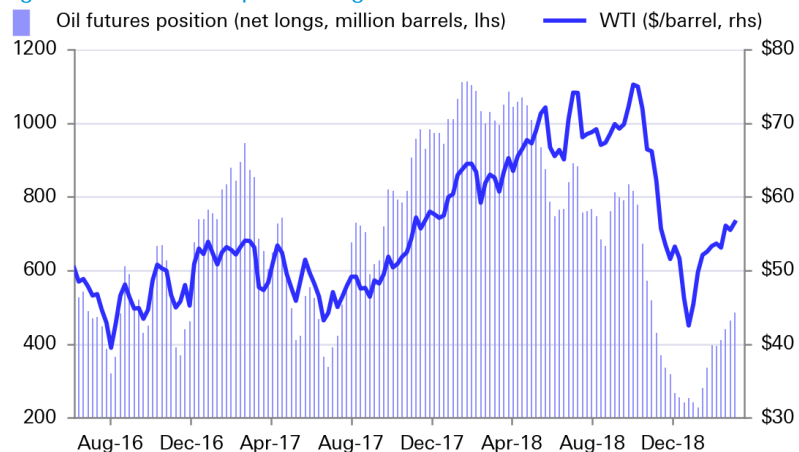
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19

Figure 18: Dollar futures positioning



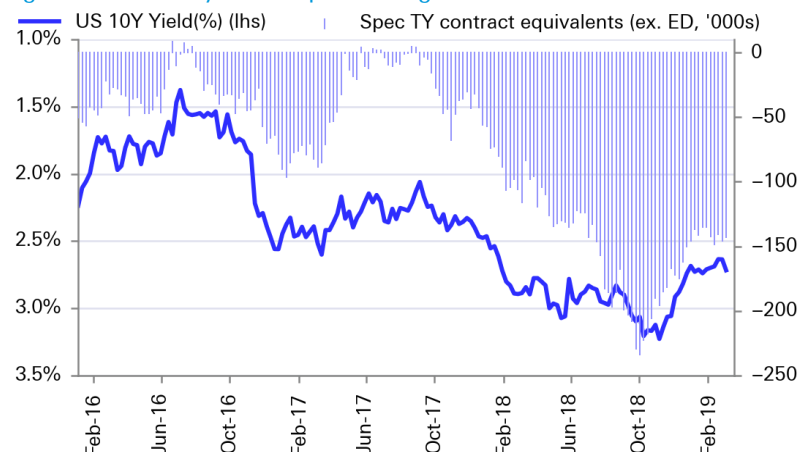
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19

Figure 19: Oil futures positioning



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19

Figure 20: Treasury futures positioning

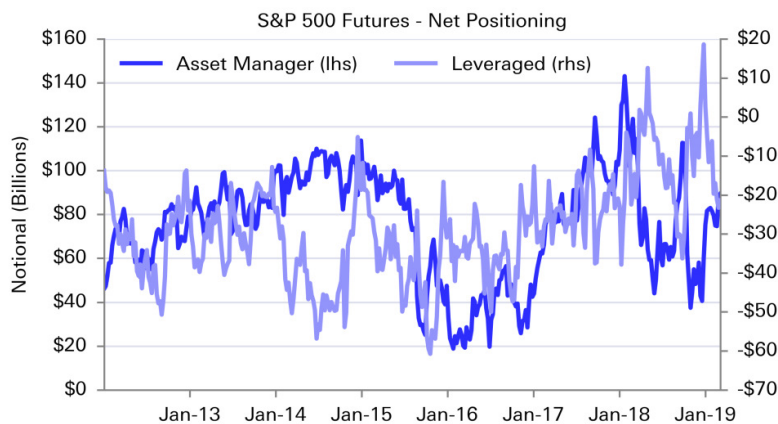


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19.



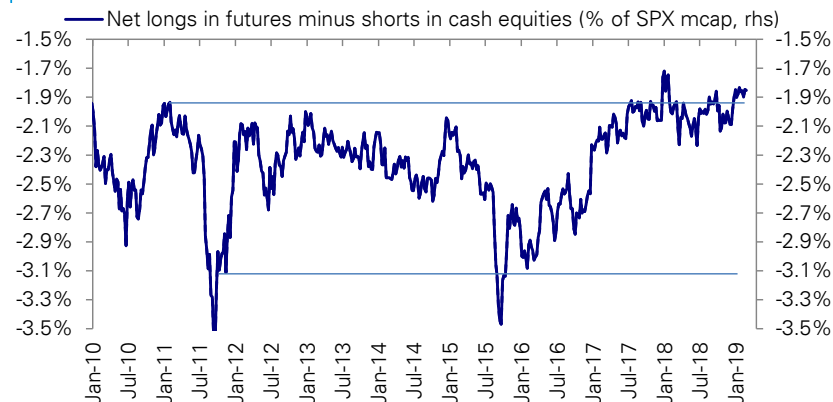
## Futures Positioning: US Equities

Figure 21: Leveraged Funds and Asset Managers futures positioning



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19.

Figure 22: Aggregate futures positions and shorts in single stocks and ETFs



Note: Futures net longs minus single stock and ETF shorts. Shorts data as of Feb 15, S&P futures Mar 05

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP.

Figure 23: US equity futures positioning - 1Y Percentile Ranks

	SPX	RTY	NDX	DJIA	MSCI EM	MSCI EAFE
ND-LONG	26%	36%	30%	62%	91%	66%
ND-SHORT	43%	91%	23%	85%	38%	23%
ND-NET	32%	23%	40%	38%	92%	74%
AM-LONG	53%	62%	62%	70%	92%	92%
AM-SHORT	13%	96%	75%	98%	36%	42%
AM-NET	87%	38%	55%	21%	92%	91%
LM-LONG	17%	11%	8%	51%	28%	9%
LM-SHORT	53%	8%	21%	13%	83%	34%
LM-NET	19%	47%	38%	74%	13%	28%
OT-LONG	8%	2%	28%	60%	32%	98%
OT-SHORT	100%	100%	40%	83%	47%	30%
OT-NET	2%	2%	51%	26%	43%	98%

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19.

Figure 24: US equity futures WoW Change - 1Y Z-score

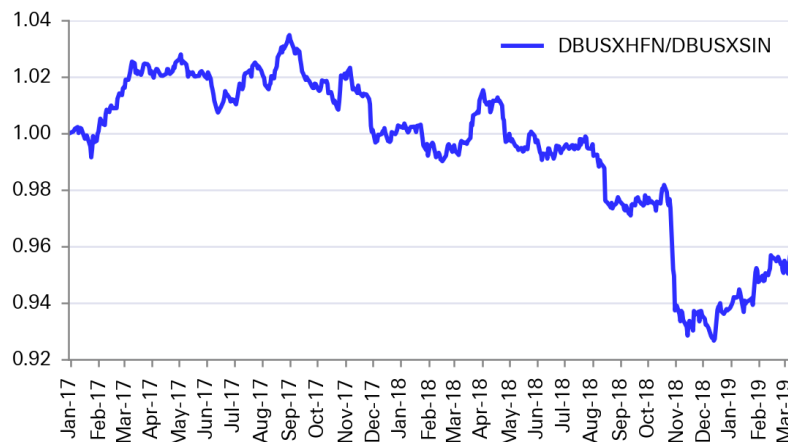
	SPX	RTY	NDX	DJIA	MSCI EM	MSCI EAFE
ND-LONG	0.59	-0.17	-0.16	0.17	-1.61	-1.93
ND-SHORT	0.19	0.78	0.33	0.86	-1.54	-0.87
ND-NET	0.33	-0.91	-0.3	-0.39	-0.88	-1.52
AM-LONG	-0.01	-0.21	-0.08	0.35	-1.61	-2.04
AM-SHORT	-0.36	0.13	-0.17	1.32	-0.71	0.51
AM-NET	0.15	-0.29	0.03	-0.47	-1.17	-2.18
LM-LONG	0.8	0.25	-0.22	-0.06	-0.68	0.08
LM-SHORT	0.32	0.32	0.33	-0.21	-1.55	-1.4
LM-NET	0.28	-0.06	-0.38	0.07	0.68	1.08
OT-LONG	0.5	-1.1	0.23	0.43	0.73	0.04
OT-SHORT	0.92	1.71	0.61	1.02	-0.16	-0.04
OT-NET	-0.3	-1.77	-0.38	-0.83	0.63	0.05

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Bloomberg Finance LP, Data as of 5-Mar-19.



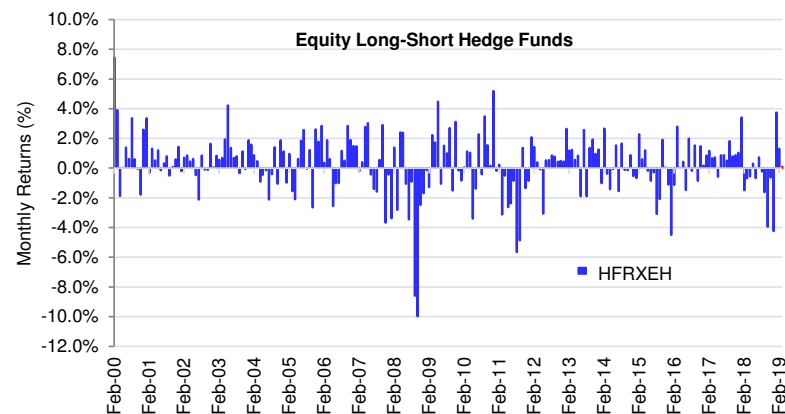
## Equity L/S Hedge Funds continue to add gross leverage but cut net exposure

Figure 25: Hedge Fund's top \$-longs continue to outperform top \$-shorts YTD



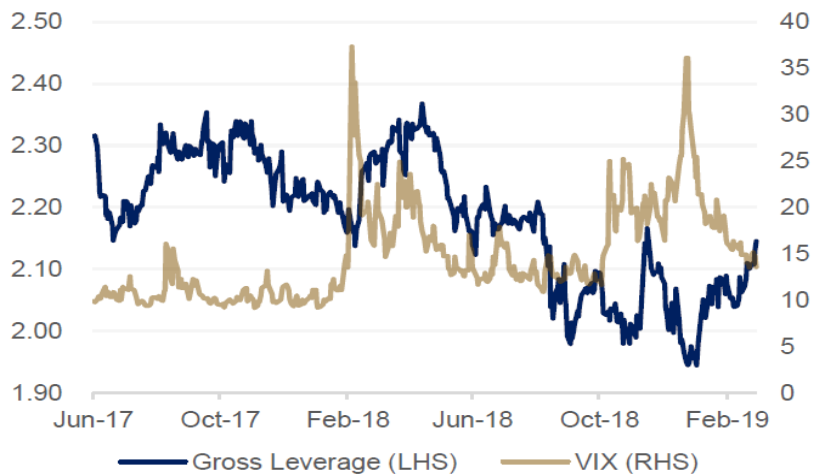
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Bloomberg Finance LP, Factset, Axioma. Data as of 7-Mar-19.

Figure 26: Equity L/S Hedge Fund returns are +4.9% YTD



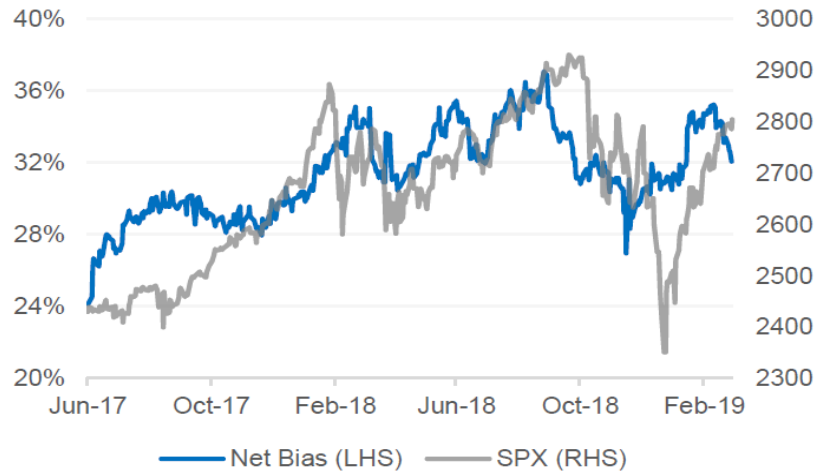
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Bloomberg Finance LP. Data as of 7-Mar-19.

Figure 27: L/S Equity Hedge Funds continue to add gross leverage



Source: Deutsche Bank Global Prime Finance, Reuters. Data as of 4-Mar-19.

Figure 28: Equity L/S Hedge Funds cut net exposure in recent weeks

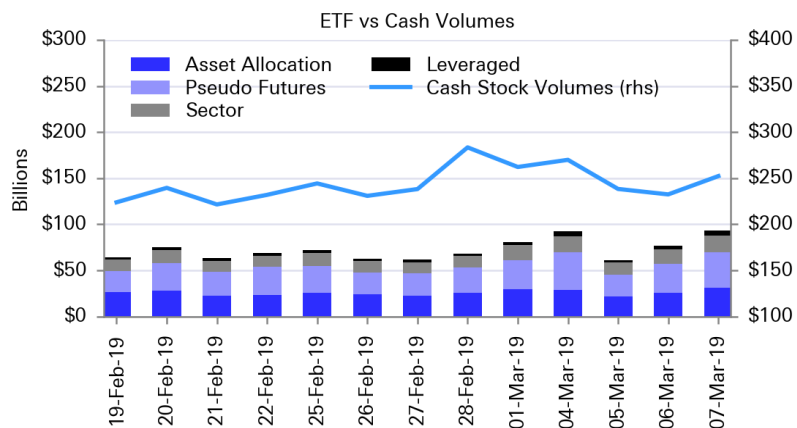


Source: Deutsche Bank Global Prime Finance, Reuters. Data as of 4-Mar-19. Net Bias is Net Exposure/Gross Exposure



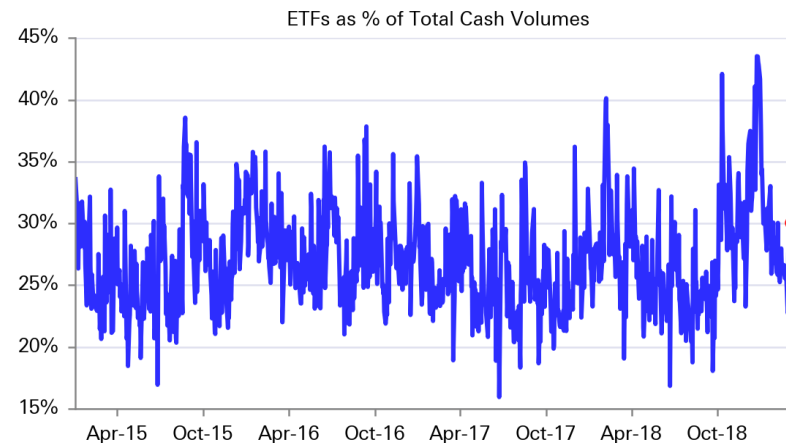
## ETFs: Volumes and Flows

Figure 29: Stock and ETF volumes were relatively flat week-over-week



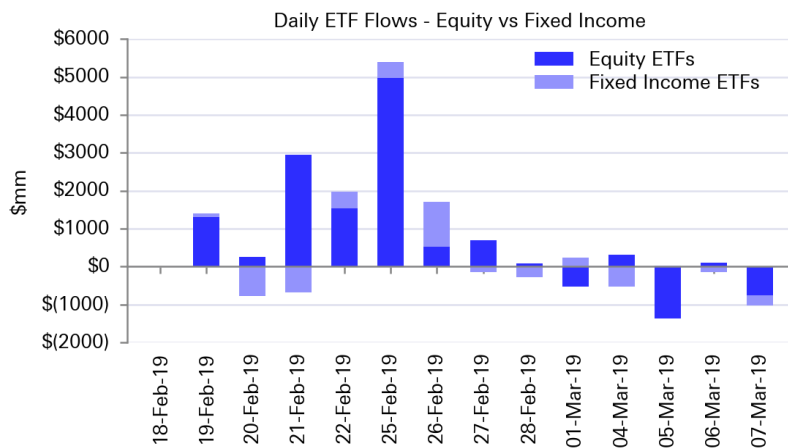
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Factset, Reuters, Bloomberg Finance LP, Data as of 7-Mar-19

Figure 30: ETF participation in cash trading spiked this week



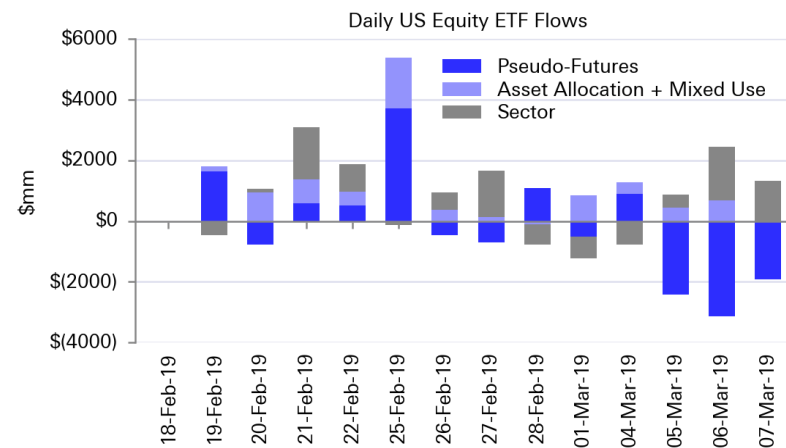
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Factset, Reuters, Bloomberg Finance LP, Data as of 7-Mar-19.

Figure 31: Equity ETFs saw outflows this week



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Factset, Reuters, Bloomberg Finance LP, Data as of 7-Mar-19.

Figure 32: US Equity ETFs ????

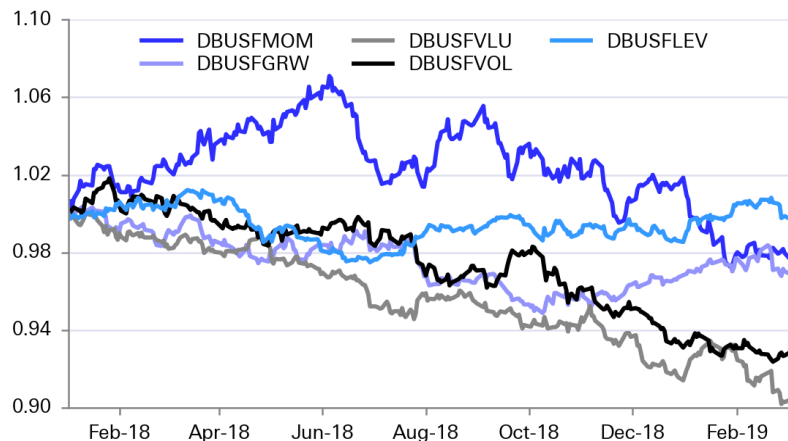


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Factset, Reuters, Bloomberg Finance LP, Data as of 7-Mar-19.



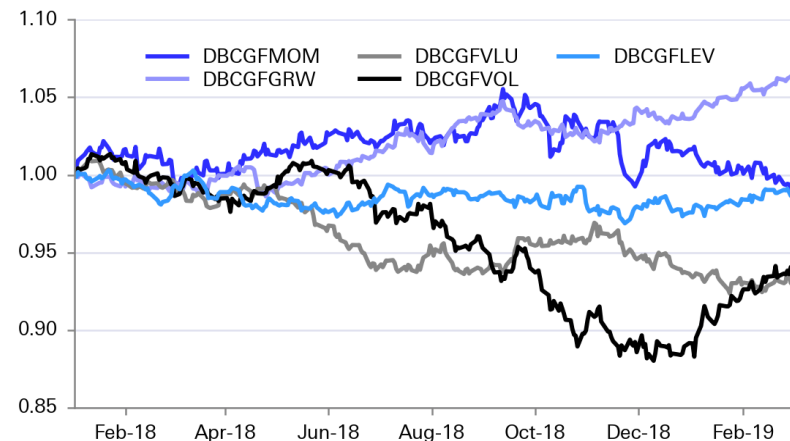
## Equity Premia: Except Momentum, most long-short factors rallied with the market

Figure 33: US Fast Factors: Value sold off, but most factors were flat this week



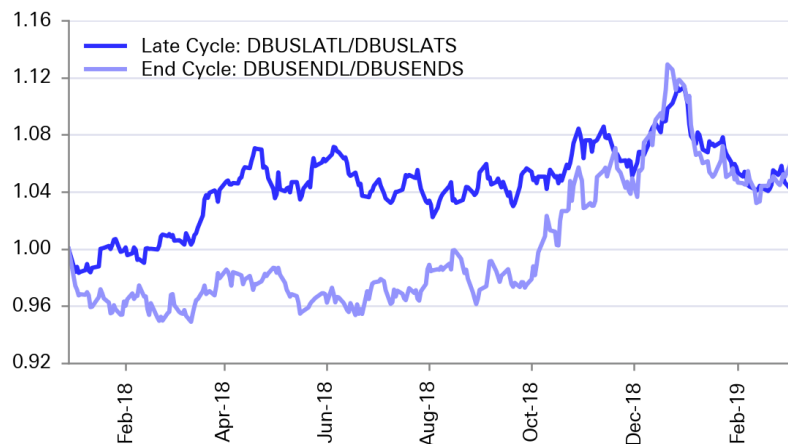
Source: Deutsche Bank Quantitative & Delta-1 Strategy, Axioma, Factset, Bloomberg Finance LP, Data as of 7-Mar-19

Figure 34: Europe Fast Factors: Growth and Residual Volatility continue to rally



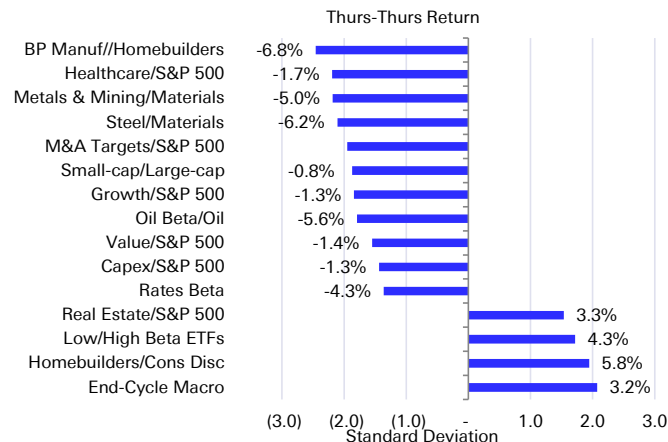
Source: Deutsche Bank Quantitative & Delta-1 Strategy, Axioma, Factset, Bloomberg Finance LP, Data as of 7-Mar-19

Figure 35: End Cycle baskets rallied this week on global growth concerns



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Haver Analytics, Bloomberg Finance LP, Data as of 7-Mar-19.

Figure 36: Healthcare and cyclical segments underperformed this week, low vol rallied

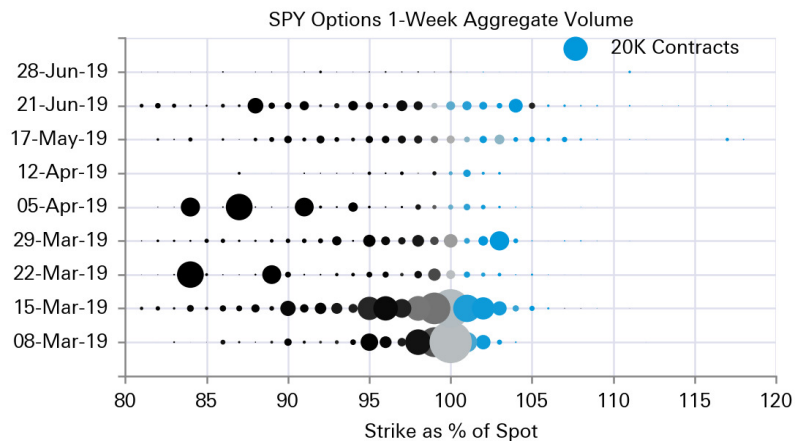


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Axioma, Factset, Bloomberg Finance LP, Data as of 7-Mar-19



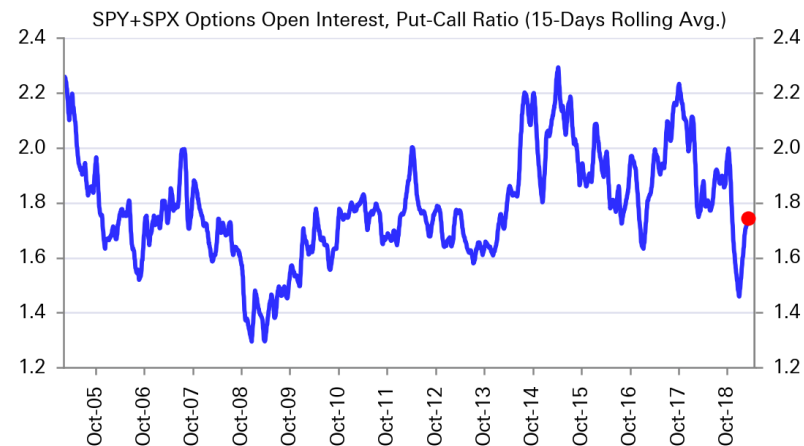
## S&P 500 Options: Open Interest, Vol, Skew, Correlation

Figure 37: SPY put options were more active than calls this week



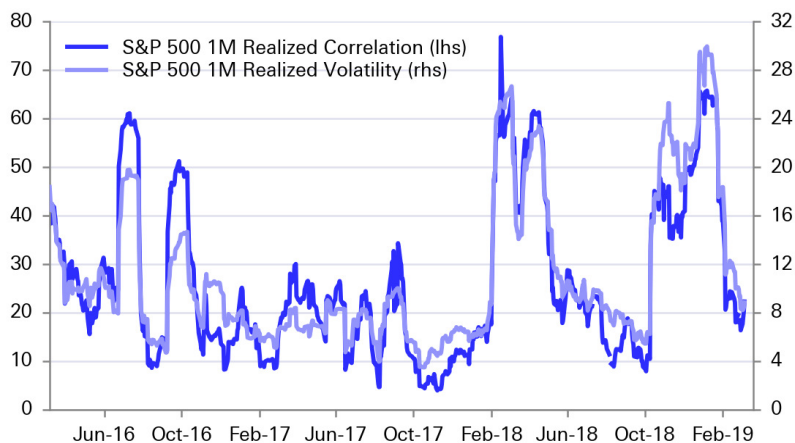
Source: Deutsche Bank Quant & Delta-1 Strategy, OptionMetrics, Bloomberg Finance LP. Data as of 7-Mar-19.

Figure 38: Put-call ratio for S&P 500 back in range from recent lows



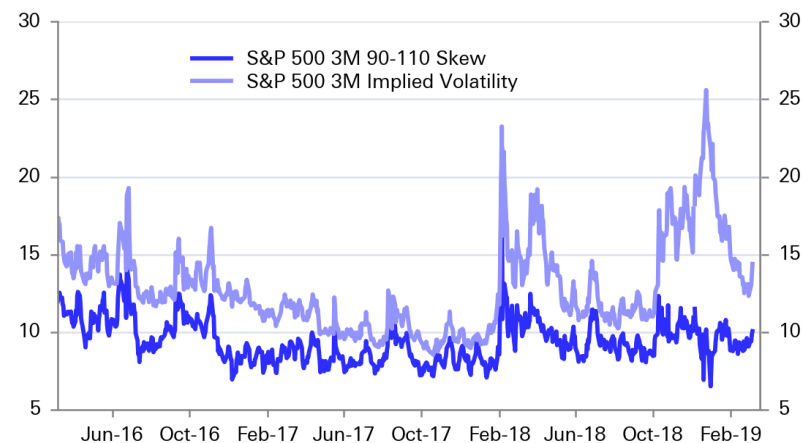
Source: Deutsche Bank Quant & Delta-1 Strategy, OptionMetrics, Bloomberg Finance LP. Data as of 7-Mar-19

Figure 39: 1M realized correlation and volatility are still relatively low



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Bloomberg Finance LP, Reuters. Data as of 7-Mar-19.

Figure 40: Implied volatility hand skew picked up slightly

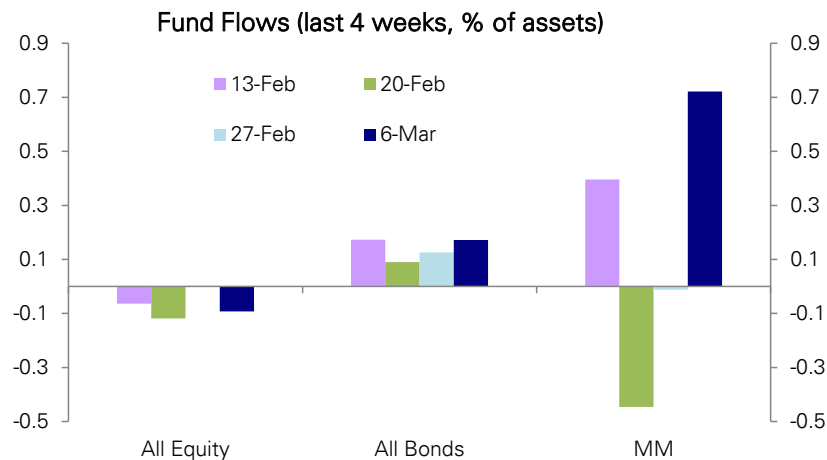


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, Bloomberg Finance LP, Reuters. Data as of 7-Mar-19.



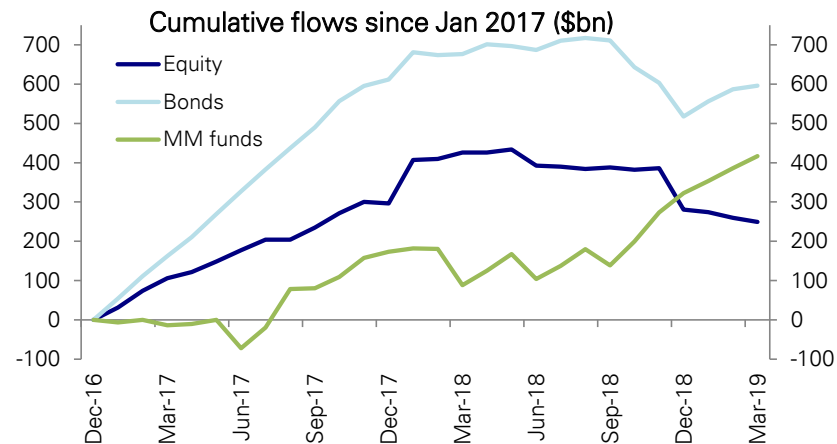
## Cross-asset flows

Figure 41: Flows across asset classes last 4 weeks



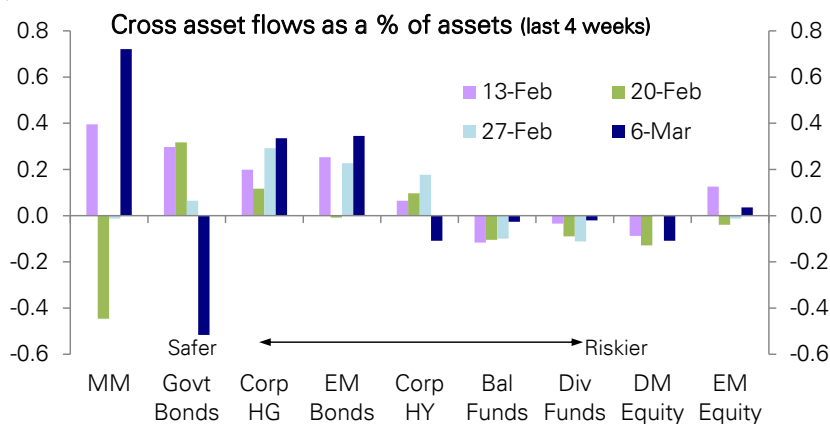
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 42: Flows across asset classes cumulative since 2017



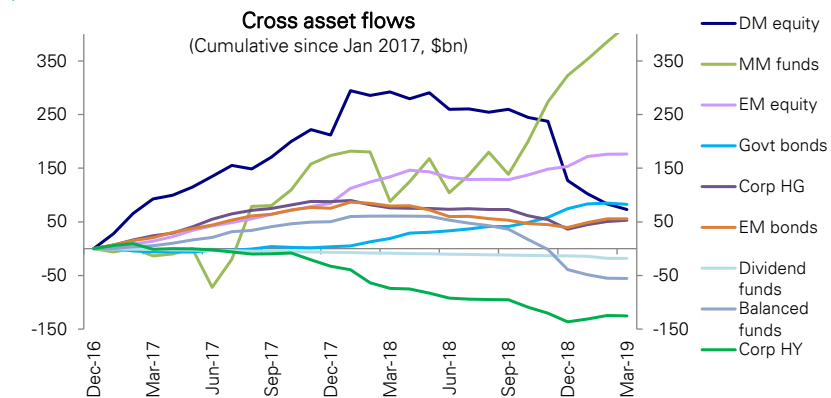
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 43: Cross asset flows last 4 weeks



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 44: Cross asset flows cumulative since 2017

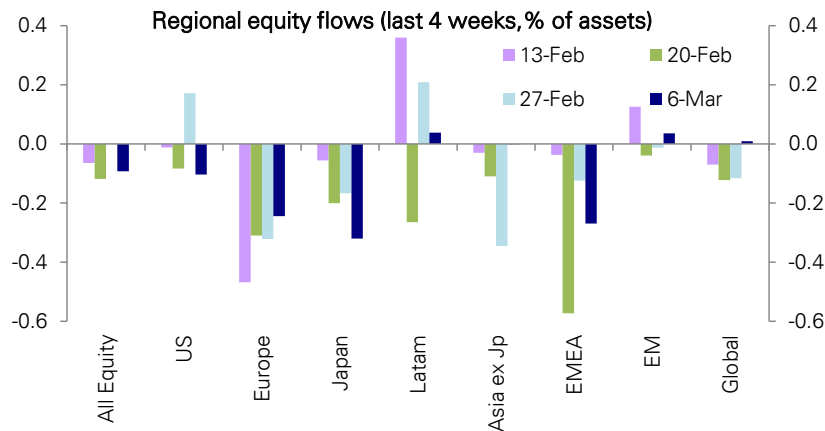


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19



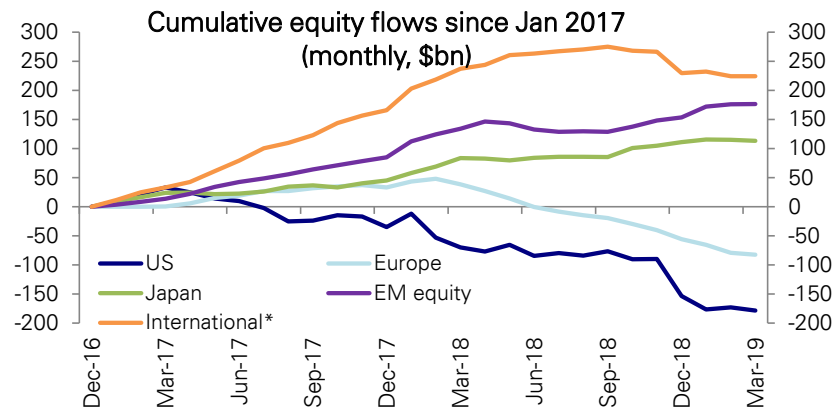
## Equity Flows

Figure 45: Regional equity fund flows last 4 weeks



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

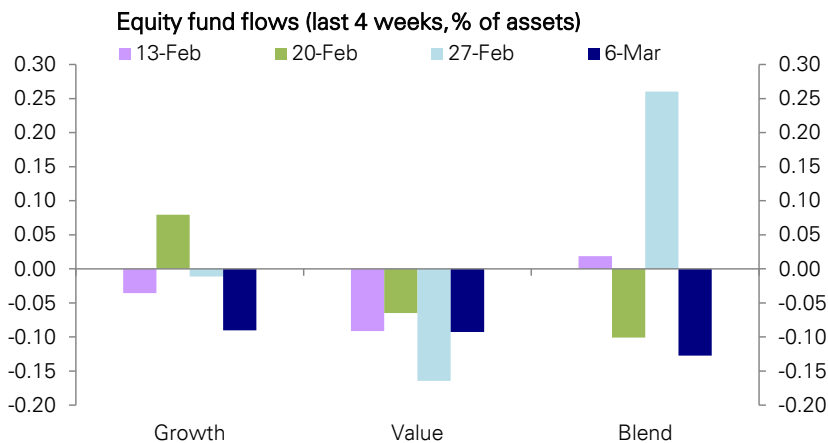
Figure 46: Equity flows across region



\* Funds with a global mandate, overwhelmingly tend to be focused on DM ex-US

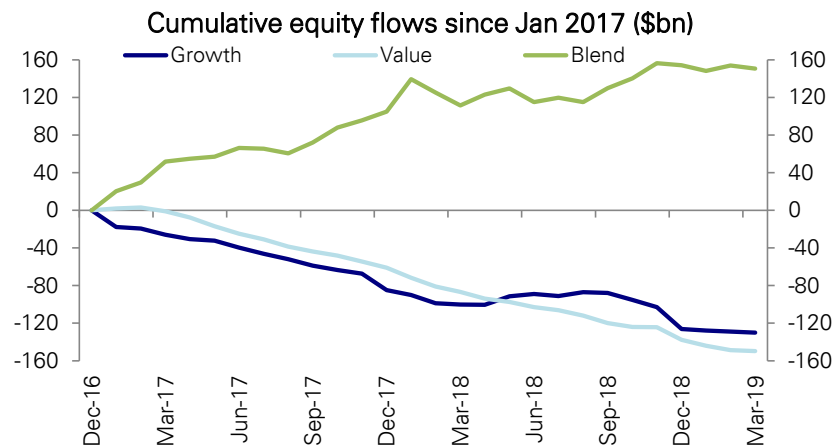
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 47: Equity flows by fund style last 4 weeks



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 48: Equity flows by fund style

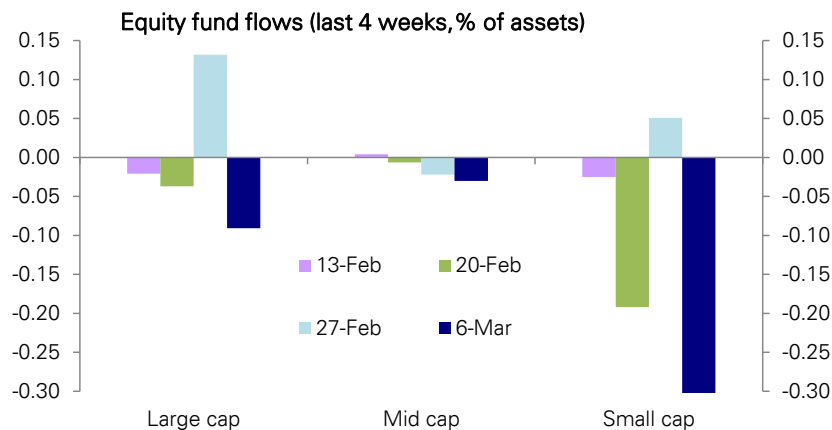


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19



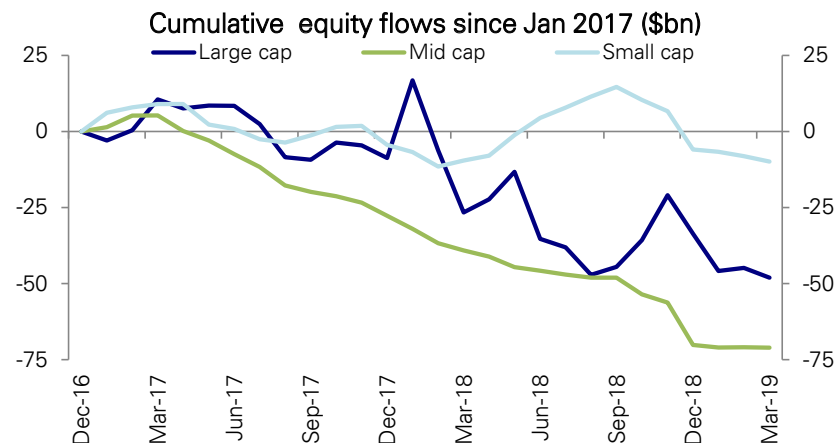


Figure 49: Equity fund flows by size last 4 weeks



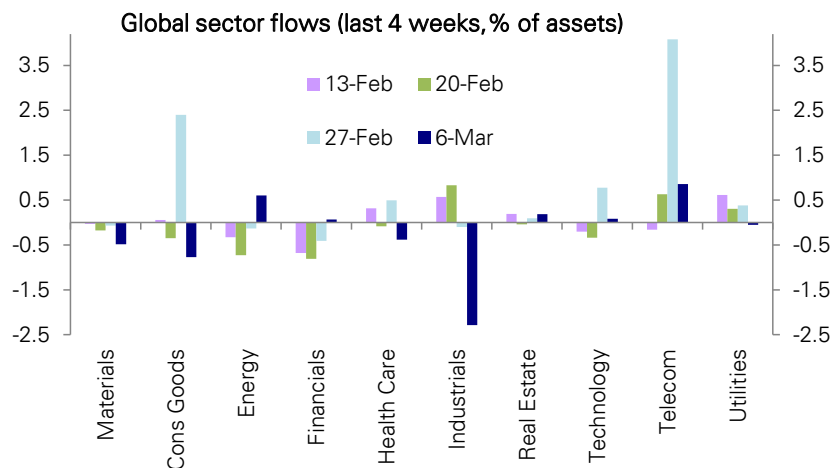
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 50: Equity fund flows by size



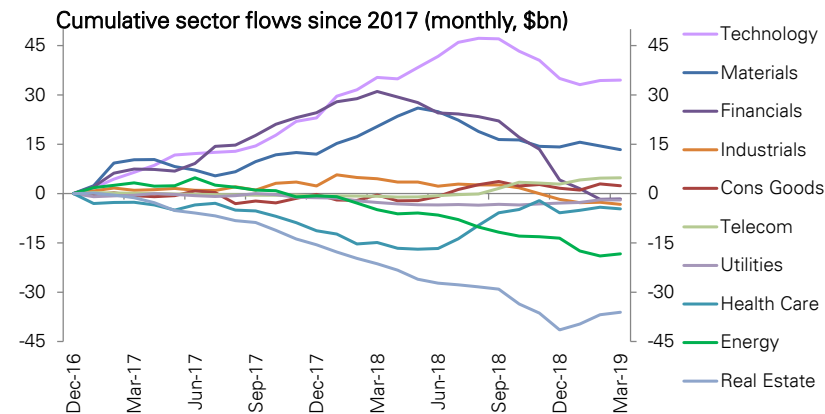
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 51: Sector fund flows last 4 weeks



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 52: Sector fund flows

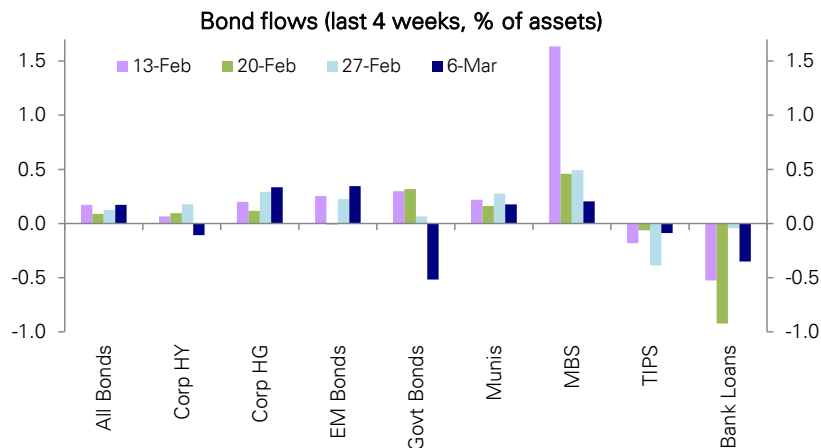


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19



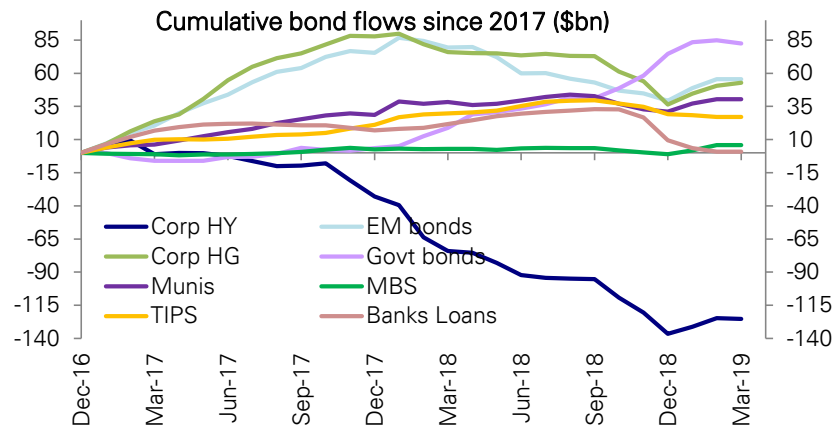
## Bond fund flows

Figure 53: Bond fund flows by category last 4 weeks



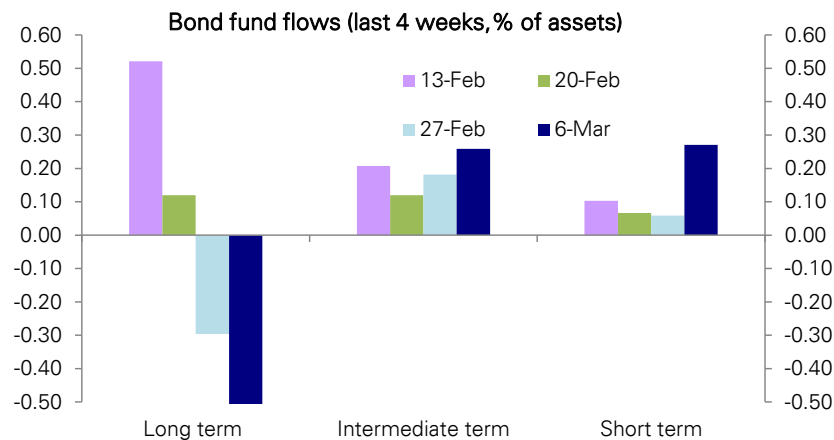
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 54: Bond flows by category



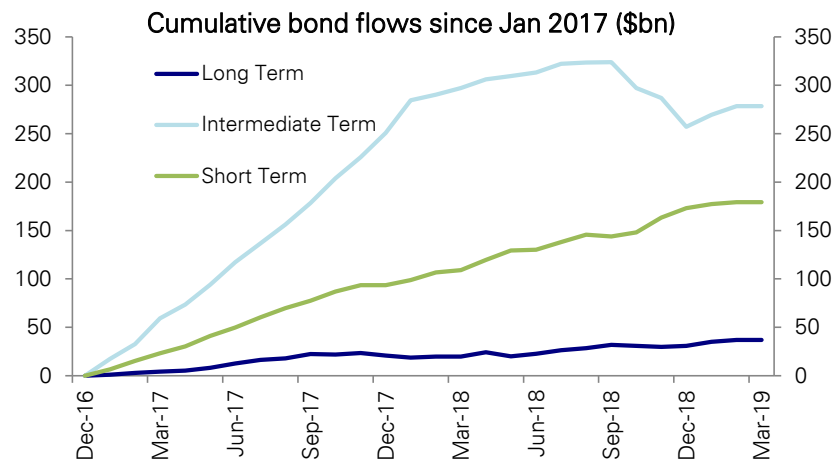
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 55: Bond fund flows by maturity last 4 weeks



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19

Figure 56: Bond fund flows by maturity

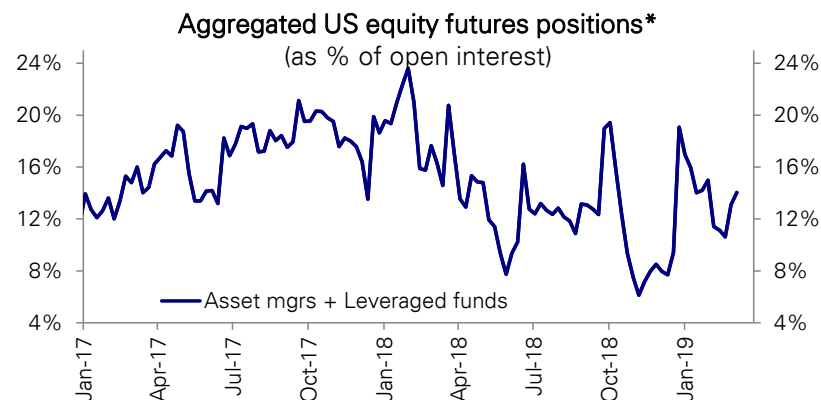


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, EPFR, Haver Analytics, Data as of 06-Mar-19



## Equity futures positioning

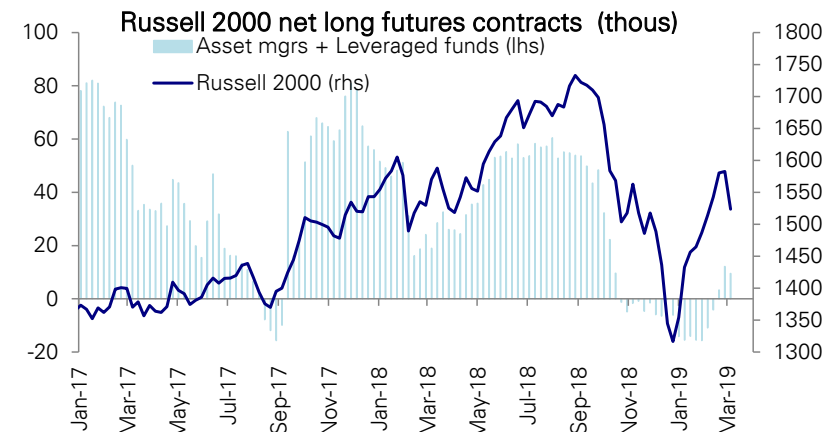
Figure 57: Aggregate US equity futures positioning



\*Based on futures positions in S&P 500, Russell 2000, NASDAQ 100, S&P 400 and DJIA;  
Positioning data as of Mar 05 2019

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

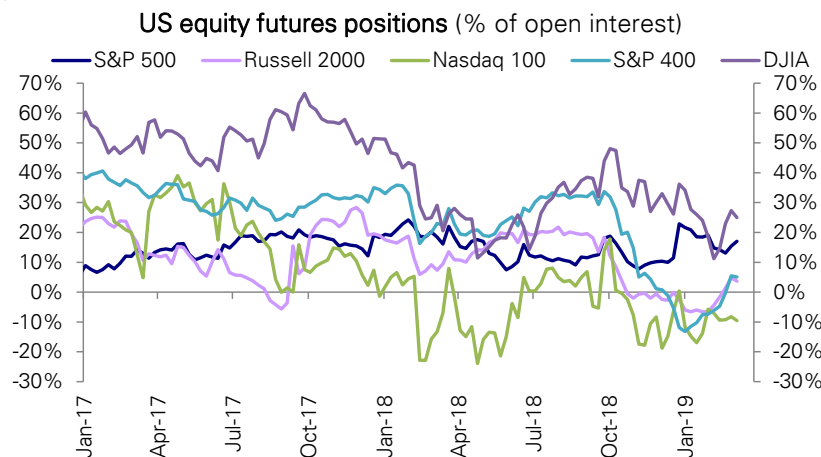
Figure 58: Russell 2000 futures positioning



Positioning data as of 05 Mar 2019

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

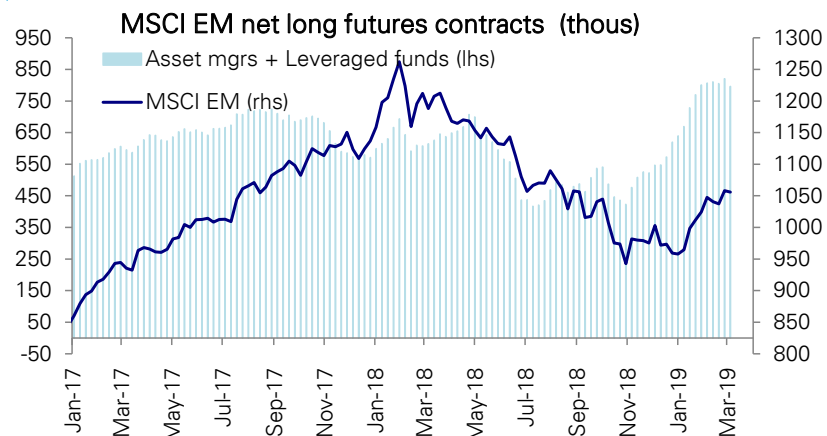
Figure 59: US equity futures positioning



Positioning data as of 05 Mar 2019

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 60: EM equity futures positioning



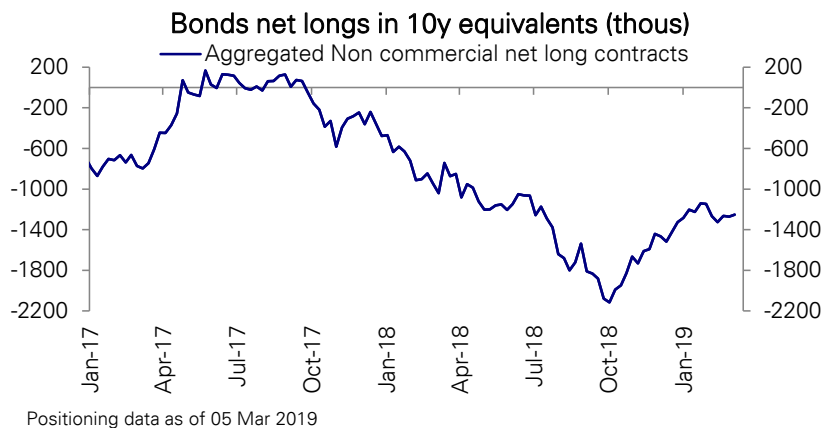
Positioning data as of 05 Mar 2019

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19



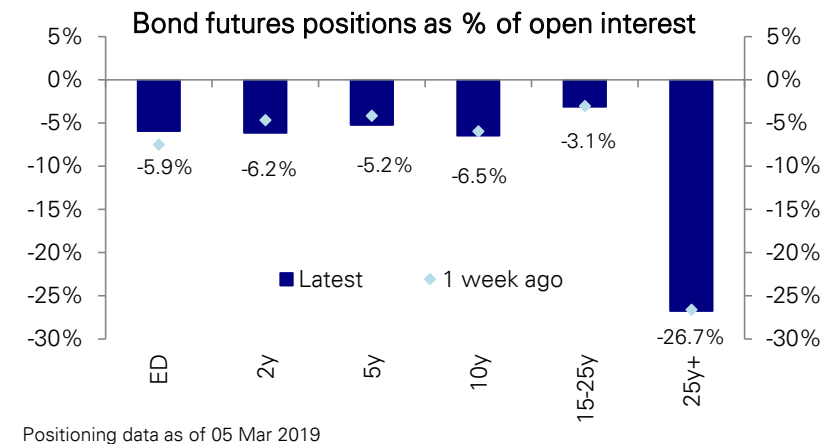
## Bond futures positioning

Figure 61: Aggregate bond futures positioning



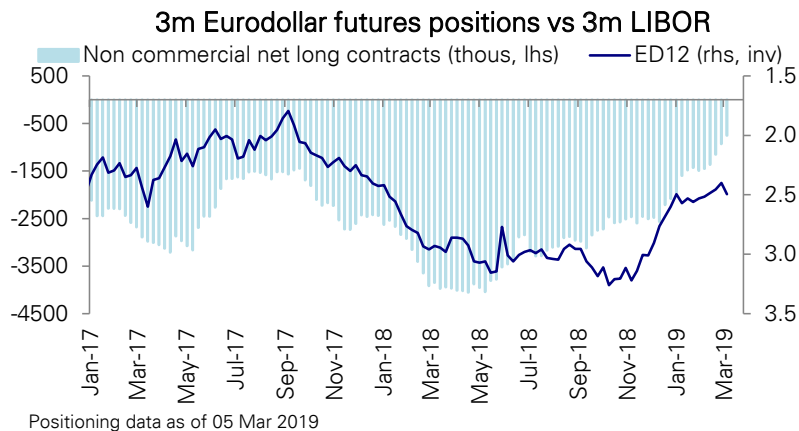
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 62: Bond futures positioning by maturity



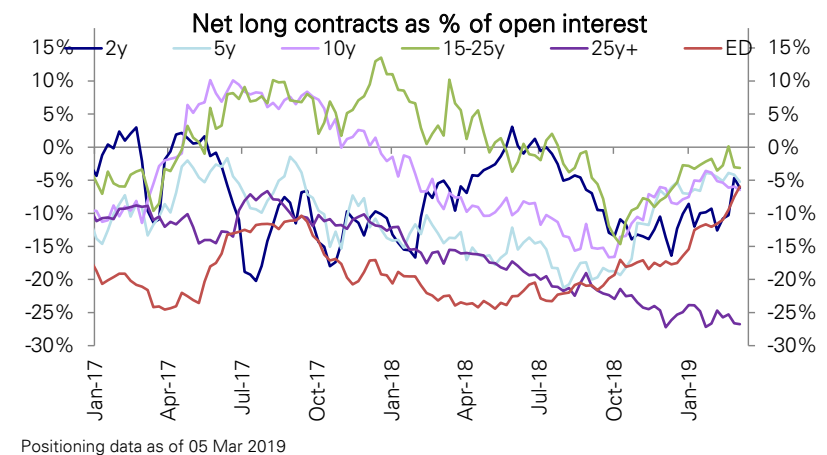
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 63: Eurodollar futures positioning



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 64: Bond futures positioning by maturity

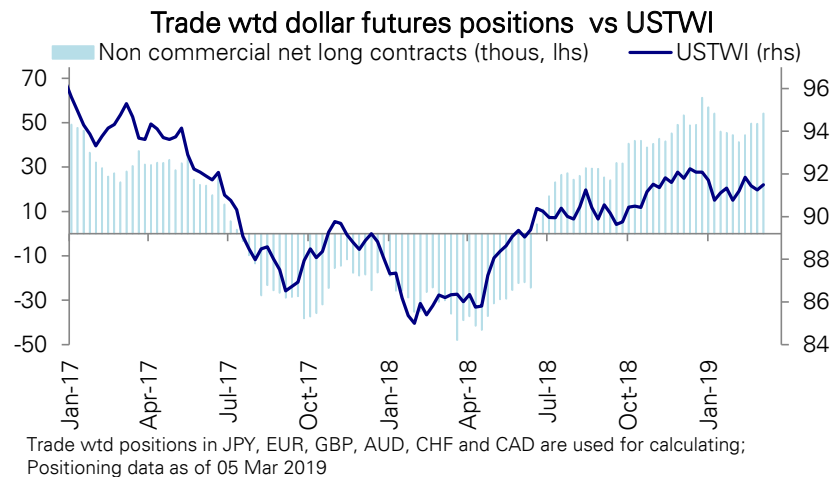


Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19



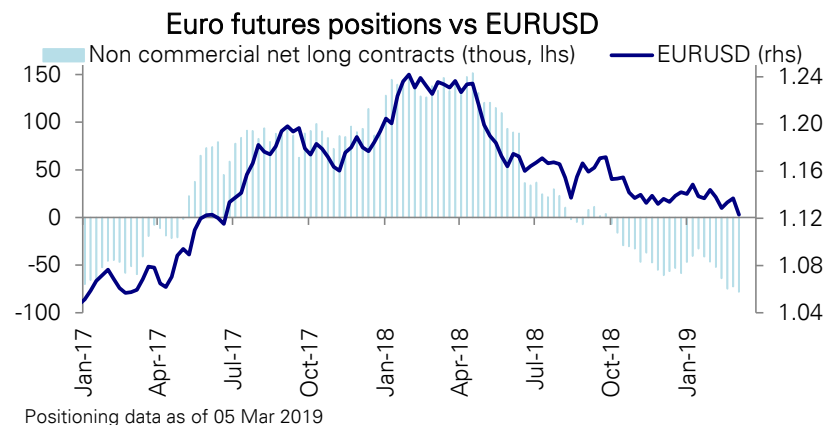
## FX futures positioning

Figure 65: Trade weighted dollar positioning



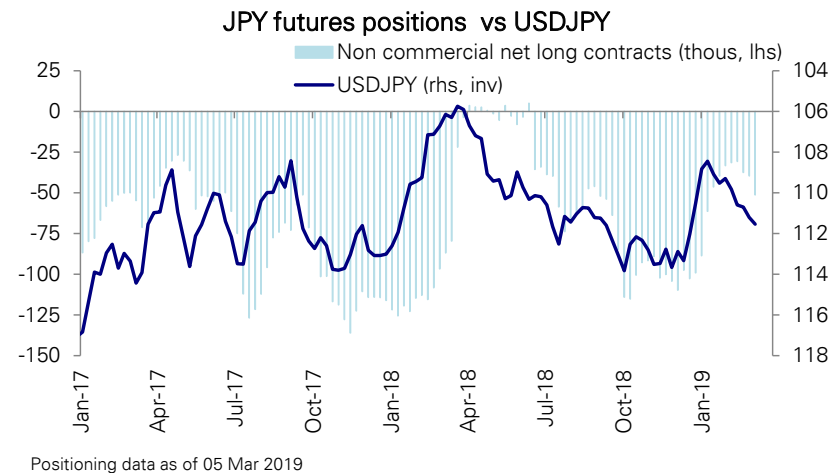
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 66: Euro futures positioning



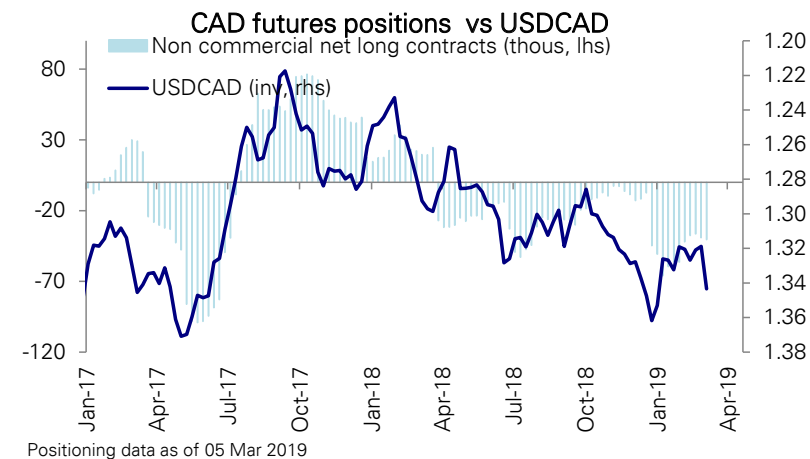
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 67: Yen futures positioning



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

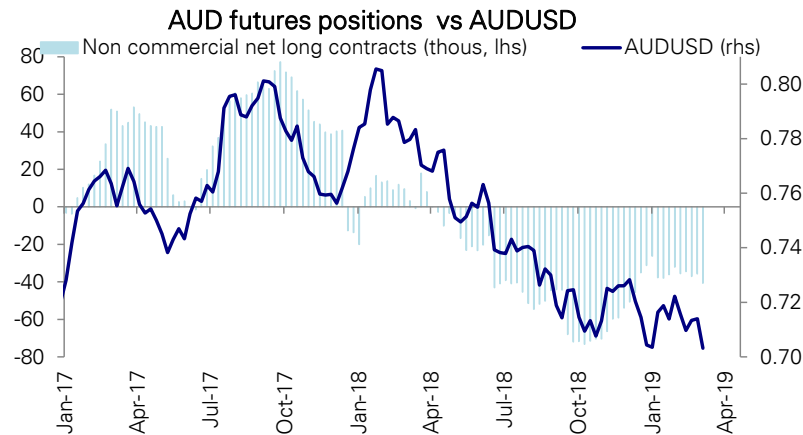
Figure 68: Canadian dollar futures positioning



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19



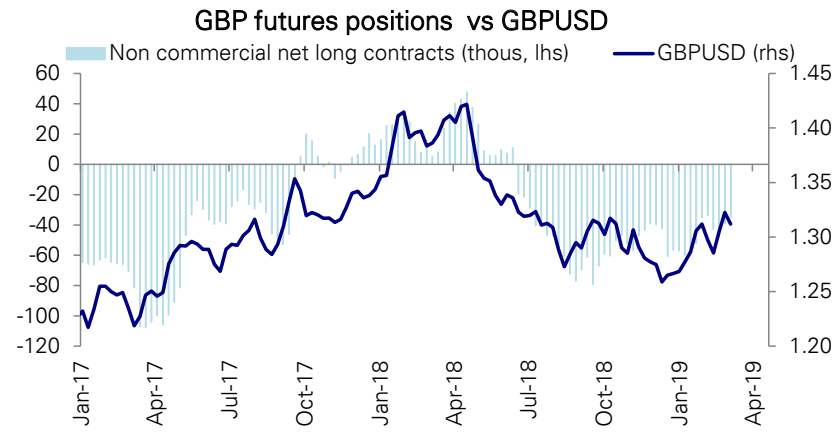
Figure 69: Australian dollar futures positioning



Positioning data as of 05 Mar 2019

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

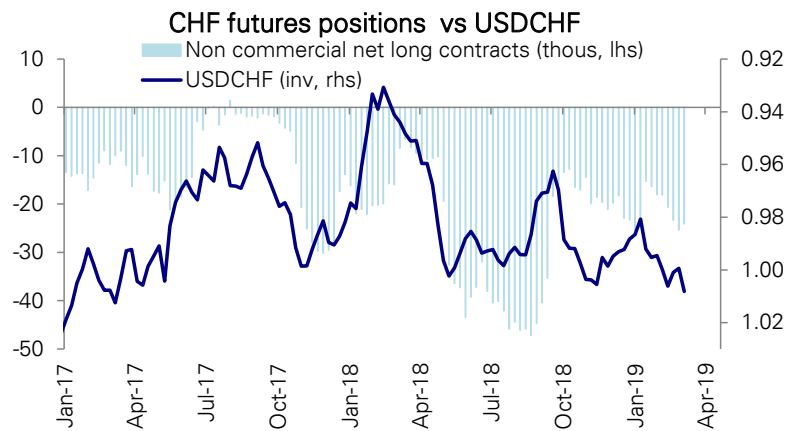
Figure 70: Sterling futures positioning



Positioning data as of 05 Mar 2019

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

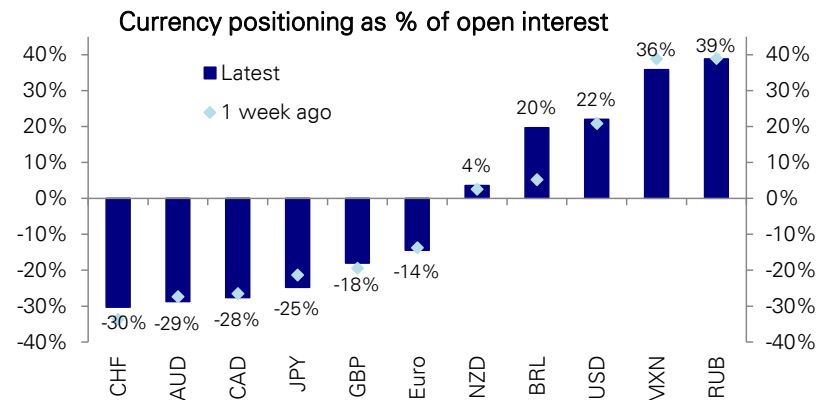
Figure 71: Swiss franc futures positioning



Positioning data as of 05 Mar 2019

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 72: Futures positioning across currencies



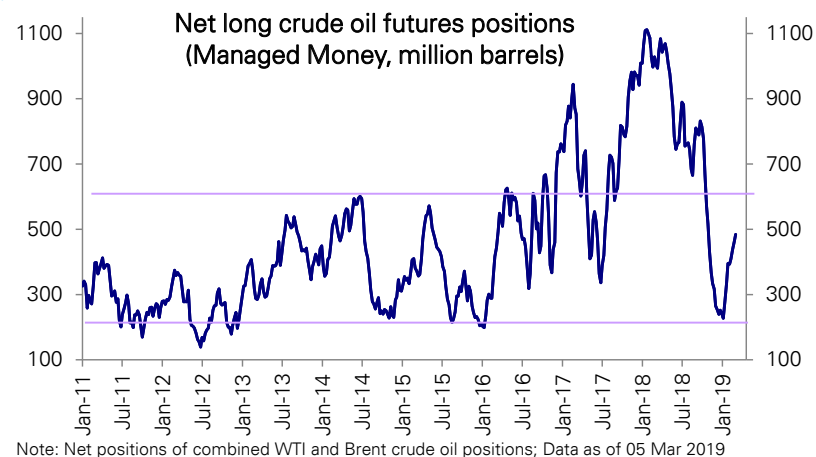
Positioning data as of 05 Mar 2019

Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19



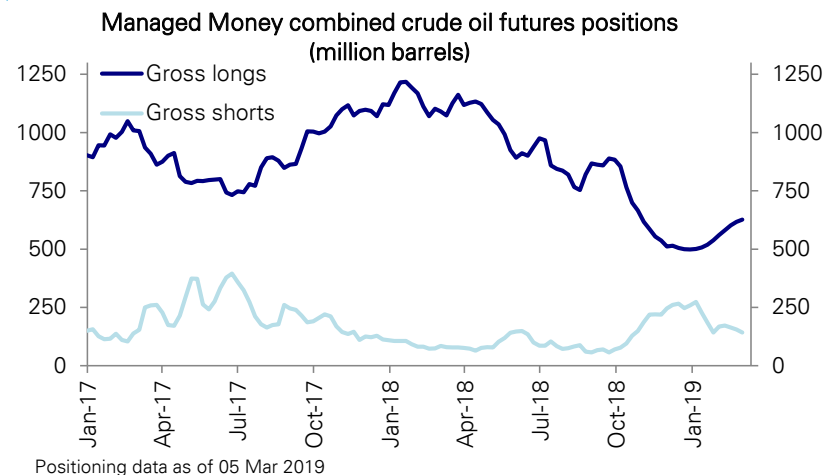
## Commodity futures positioning

Figure 73: Oil futures positioning



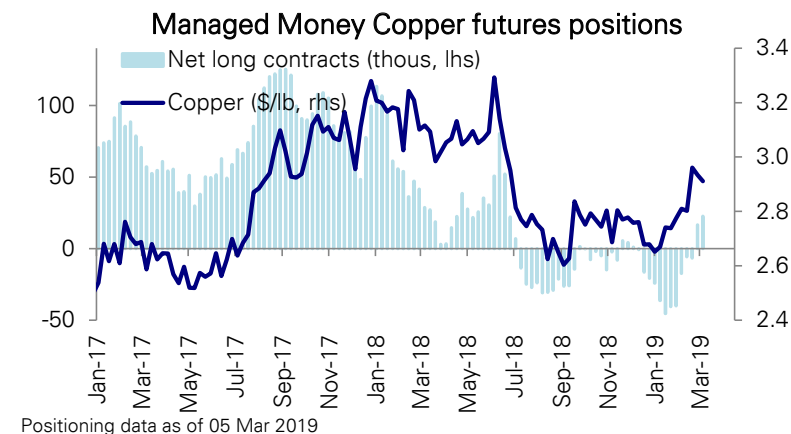
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 74: Oil futures gross longs vs shorts



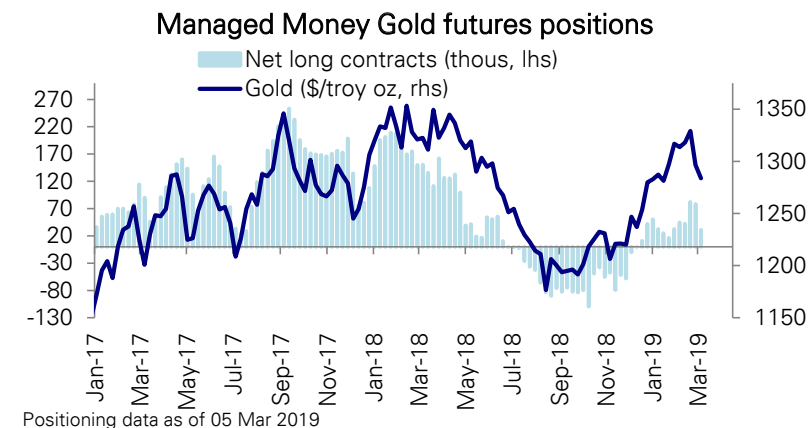
Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 75: Copper futures positioning



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19

Figure 76: Gold futures positioning



Source: Deutsche Bank Asset Allocation & Delta-1 Strategy, CFTC, Haver Analytics, Data as of 05-Mar-19



8 March 2019

Investor Positioning and Flows



# Appendix 1

## Important Disclosures

### \*Other information available upon request

\*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <https://research.db.com/Research/Disclosures/CompanySearch>. Aside from within this report, important risk and conflict disclosures can also be found at <https://research.db.com/Research/Topics/Equities?topicId=RB0002>. Investors are strongly encouraged to review this information before investing.

## Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s). In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report. Parag Thatte, Hallie Martin, Srineel Jalagani, Binky Chadha

### Equity Rating Key

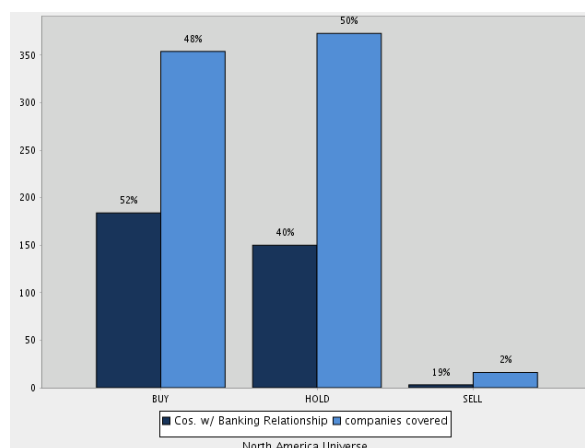
**Buy:** Based on a current 12-month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus projected dividend yield), we recommend that investors buy the stock.

**Sell:** Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock.

**Hold:** We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

Newly issued research recommendations and target prices supersede previously published research.

### Equity rating dispersion and banking relationships



## Additional ETF Information

Information on ETFs is provided strictly for illustrative purposes and should not be deemed an offer to sell or a solicitation of an offer to buy shares of any fund that is described in this document. Consider carefully any fund's investment objectives, risk factors, and charges and expenses before investing. This and other information can be found in the fund's prospectus. Prospectuses about db X-trackers funds and Powershares DB funds can be obtained by calling 1-877-369-4617 or by visiting [www.DBXUS.com](http://www.DBXUS.com). Read prospectuses carefully before investing. Past performance is not necessarily indicative of future results. Investing involves risk, including possible loss of principal. To better understand the similarities and differences between investments, including investment objectives, risks, fees and expenses, it is important to read the products' prospectuses. Shares of ETFs may be sold throughout the day on an exchange through any brokerage account. However, shares may only be redeemed directly from an ETF by authorized participants, in very large creation/redemption units. Transactions in shares of ETFs will result in brokerage commissions and will generate tax consequences. ETFs are obliged to distribute portfolio gains to shareholders. Deutsche Bank may be an issuer, advisor, manager, distributor or administrator of, or provide other services to, an ETF included in this report, for which it receives compensation. db X-trackers and Powershares DB funds are distributed by ALPS Distributors, Inc. The opinions expressed are those of the authors and do not necessarily reflect the views of DB, ALPS or their affiliates.



8 March 2019

Investor Positioning and Flows



Aside from within this report, important conflict disclosures can also be found at <https://gm.db.com/equities> under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

8 March 2019

Investor Positioning and Flows



## Additional Information

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively "Deutsche Bank"). Though the information herein is believed to be reliable and has been obtained from public sources believed to be reliable, Deutsche Bank makes no representation as to its accuracy or completeness. Hyperlinks to third-party websites in this report are provided for reader convenience only. Deutsche Bank neither endorses the content nor is responsible for the accuracy or security controls of those websites.

If you use the services of Deutsche Bank in connection with a purchase or sale of a security that is discussed in this report, or is included or discussed in another communication (oral or written) from a Deutsche Bank analyst, Deutsche Bank may act as principal for its own account or as agent for another person.

Deutsche Bank may consider this report in deciding to trade as principal. It may also engage in transactions, for its own account or with customers, in a manner inconsistent with the views taken in this research report. Others within Deutsche Bank, including strategists, sales staff and other analysts, may take views that are inconsistent with those taken in this research report. Deutsche Bank issues a variety of research products, including fundamental analysis, equity-linked analysis, quantitative analysis and trade ideas. Recommendations contained in one type of communication may differ from recommendations contained in others, whether as a result of differing time horizons, methodologies, perspectives or otherwise. Deutsche Bank and/or its affiliates may also be holding debt or equity securities of the issuers it writes on. Analysts are paid in part based on the profitability of Deutsche Bank AG and its affiliates, which includes investment banking, trading and principal trading revenues.

Opinions, estimates and projections constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank provides liquidity for buyers and sellers of securities issued by the companies it covers. Deutsche Bank research analysts sometimes have shorter-term trade ideas that may be inconsistent with Deutsche Bank's existing longer-term ratings. Some trade ideas for equities are listed as Catalyst Calls on the Research Website ( <https://research.db.com/Research/> ), and can be found on the general coverage list and also on the covered company ' s page. A Catalyst Call represents a high-conviction belief by an analyst that a stock will outperform or underperform the market and/or a specified sector over a time frame of no less than two weeks and no more than three months. In addition to Catalyst Calls, analysts may occasionally discuss with our clients, and with Deutsche Bank salespersons and traders, trading strategies or ideas that reference catalysts or events that may have a near-term or medium-term impact on the market price of the securities discussed in this report, which impact may be directionally counter to the analysts' current 12-month view of total return or investment return as described herein. Deutsche Bank has no obligation to update, modify or amend this report or to otherwise notify a recipient thereof if an opinion, forecast or estimate changes or becomes inaccurate. Coverage and the frequency of changes in market conditions and in both general and company-specific economic prospects make it difficult to update research at defined intervals. Updates are at the sole discretion of the coverage analyst or of the Research Department Management, and the majority of reports are published at irregular intervals. This report is provided for informational purposes only and does not take into account the particular investment objectives, financial situations, or needs of individual clients. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst ' s judgment. The financial instruments discussed in this report may not be suitable for all investors, and investors must make their own informed investment decisions. Prices and availability of financial instruments are subject to change without notice, and investment transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Performance calculations exclude transaction costs, unless otherwise indicated. Unless otherwise indicated, prices are current as of the end of the previous trading session and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is also sourced from Deutsche Bank, subject companies, and other parties.

The Deutsche Bank Research Department is independent of other business divisions of the Bank. Details regarding our organizational arrangements and information barriers we have to prevent and avoid conflicts of interest with respect to our research are available on our website ( <https://research.db.com/Research/> ) under Disclaimer.

8 March 2019

Investor Positioning and Flows



Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor who is long fixed-rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or liquidation of positions), and settlement issues related to local clearing houses are also important risk factors. The sensitivity of fixed-income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates – these are common in emerging markets. The index fixings may – by construction – lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. Funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Options on swaps (swaptions) the risks typical to options in addition to the risks related to rates movements.

Derivative transactions involve numerous risks including market, counterparty default and illiquidity risk. The appropriateness of these products for use by investors depends on the investors' own circumstances, including their tax position, their regulatory environment and the nature of their other assets and liabilities; as such, investors should take expert legal and financial advice before entering into any transaction similar to or inspired by the contents of this publication. The risk of loss in futures trading and options, foreign or domestic, can be substantial. As a result of the high degree of leverage obtainable in futures and options trading, losses may be incurred that are greater than the amount of funds initially deposited – up to theoretically unlimited losses. Trading in options involves risk and is not suitable for all investors. Prior to buying or selling an option, investors must review the "Characteristics and Risks of Standardized Options", at <http://www.optionsclearing.com/about/publications/character-risks.jsp>. If you are unable to access the website, please contact your Deutsche Bank representative for a copy of this important document.

Participants in foreign exchange transactions may incur risks arising from several factors, including the following: (i) exchange rates can be volatile and are subject to large fluctuations; (ii) the value of currencies may be affected by numerous market factors, including world and national economic, political and regulatory events, events in equity and debt markets and changes in interest rates; and (iii) currencies may be subject to devaluation or government-imposed exchange controls, which could affect the value of the currency. Investors in securities such as ADRs, whose values are affected by the currency of an underlying security, effectively assume currency risk.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. Aside from within this report, important conflict disclosures can also be found at <https://research.db.com/Research/> on each company 's research page. Investors are strongly encouraged to review this information before investing.

Deutsche Bank (which includes Deutsche Bank AG, its branches and affiliated companies) is not acting as a financial adviser, consultant or fiduciary to you or any of your agents (collectively, "You" or "Your") with respect to any information provided in this report. Deutsche Bank does not provide investment, legal, tax or accounting advice, Deutsche Bank is not acting as your impartial adviser, and does not express any opinion or recommendation whatsoever as to any strategies, products or any other information presented in the materials. Information contained herein is being provided solely on the basis that the recipient will make an independent assessment of the merits of any investment decision, and it does not constitute a recommendation of, or express an opinion on, any product or service or any trading strategy.

The information presented is general in nature and is not directed to retirement accounts or any specific person or account type, and is therefore provided to You on the express basis that it is not advice, and You may not rely upon it in making Your decision. The information we provide is being directed only to persons we believe to be financially sophisticated, who are capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies, and who understand that Deutsche Bank has financial interests in the offering of its products

8 March 2019

Investor Positioning and Flows



and services. If this is not the case, or if You are an IRA or other retail investor receiving this directly from us, we ask that you inform us immediately.

In July 2018, Deutsche Bank revised its rating system for short term ideas whereby the branding has been changed to Catalyst Calls ("CC") from SOLAR ideas; the rating categories for Catalyst Calls originated in the Americas region have been made consistent with the categories used by Analysts globally; and the effective time period for CCs has been reduced from a maximum of 180 days to 90 days.

**United States:** Approved and/or distributed by Deutsche Bank Securities Incorporated, a member of FINRA, NFA and SIPC. Analysts located outside of the United States are employed by non-US affiliates that are not subject to FINRA regulations.

**Germany:** Approved and/or distributed by Deutsche Bank AG, a joint stock corporation with limited liability incorporated in the Federal Republic of Germany with its principal office in Frankfurt am Main. Deutsche Bank AG is authorized under German Banking Law and is subject to supervision by the European Central Bank and by BaFin, Germany's Federal Financial Supervisory Authority.

**United Kingdom:** Approved and/or distributed by Deutsche Bank AG acting through its London Branch at Winchester House, 1 Great Winchester Street, London EC2N 2DB. Deutsche Bank AG in the United Kingdom is authorised by the Prudential Regulation Authority and is subject to limited regulation by the Prudential Regulation Authority and Financial Conduct Authority. Details about the extent of our authorisation and regulation are available on request.

**Hong Kong:** Distributed by Deutsche Bank AG, Hong Kong Branch or Deutsche Securities Asia Limited (save that any research relating to futures contracts within the meaning of the Hong Kong Securities and Futures Ordinance Cap. 571 shall be distributed solely by Deutsche Securities Asia Limited). The provisions set out above in the "Additional Information" section shall apply to the fullest extent permissible by local laws and regulations, including without limitation the Code of Conduct for Persons Licensed or Registered with the Securities and Futures Commission. .

**India:** Prepared by Deutsche Equities India Private Limited (DEIPL) having CIN: U65990MH2002PTC137431 and registered office at 14th Floor, The Capital, C-70, G Block, Bandra Kurla Complex Mumbai (India) 400051. Tel: + 91 22 7180 4444. It is registered by the Securities and Exchange Board of India (SEBI) as a Stock broker bearing registration nos.: NSE (Capital Market Segment) - INB231196834, NSE (F&O Segment) INF231196834, NSE (Currency Derivatives Segment) INE231196834, BSE (Capital Market Segment) INB011196830; Merchant Banker bearing SEBI Registration no.: INM000010833 and Research Analyst bearing SEBI Registration no.: INH000001741. DEIPL may have received administrative warnings from the SEBI for breaches of Indian regulations. The transmission of research through DEIPL is Deutsche Bank's determination and will not make a recipient a client of DEIPL. Deutsche Bank and/or its affiliate(s) may have debt holdings or positions in the subject company. With regard to information on associates, please refer to the "Shareholdings" section in the Annual Report at: <https://www.db.com/ir/en/annual-reports.htm> .

**Japan:** Approved and/or distributed by Deutsche Securities Inc.(DSI). Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association and The Financial Futures Association of Japan. Commissions and risks involved in stock transactions - for stock transactions, we charge stock commissions and consumption tax by multiplying the transaction amount by the commission rate agreed with each customer. Stock transactions can lead to losses as a result of share price fluctuations and other factors. Transactions in foreign stocks can lead to additional losses stemming from foreign exchange fluctuations. We may also charge commissions and fees for certain categories of investment advice, products and services. Recommended investment strategies, products and services carry the risk of losses to principal and other losses as a result of changes in market and/or economic trends, and/or fluctuations in market value. Before deciding on the purchase of financial products and/or services, customers should carefully read the relevant disclosures, prospectuses and other documentation. "Moody's", "Standard & Poor's", and "Fitch" mentioned in this report are not registered credit rating agencies in Japan unless Japan or "Nippon" is specifically designated in the name of the entity. Reports on Japanese listed companies not written by analysts of DSI are written by Deutsche Bank Group's analysts with the coverage companies specified by DSI. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan. Target prices set by Deutsche Bank's equity analysts are based on a 12-month forecast period..



**Korea:** Distributed by Deutsche Securities Korea Co.

**South Africa:** Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10).

**Singapore:** This report is issued by Deutsche Bank AG, Singapore Branch or Deutsche Securities Asia Limited, Singapore Branch (One Raffles Quay #18-00 South Tower Singapore 048583, +65 6423 8001), which may be contacted in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated by Deutsche Bank in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), they accept legal responsibility to such person for its contents.

**Taiwan:** Information on securities/investments that trade in Taiwan is for your reference only. Readers should independently evaluate investment risks and are solely responsible for their investment decisions. Deutsche Bank research may not be distributed to the Taiwan public media or quoted or used by the Taiwan public media without written consent. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation to trade in such securities/instruments. Deutsche Securities Asia Limited, Taipei Branch may not execute transactions for clients in these securities/instruments.

**Qatar:** Deutsche Bank AG in the Qatar Financial Centre (registered no. 00032) is regulated by the Qatar Financial Centre Regulatory Authority. Deutsche Bank AG - QFC Branch may undertake only the financial services activities that fall within the scope of its existing QFCRA license. Its principal place of business in the QFC: Qatar Financial Centre, Tower, West Bay, Level 5, PO Box 14928, Doha, Qatar. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available only to Business Customers, as defined by the Qatar Financial Centre Regulatory Authority.

**Russia:** The information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.

**Kingdom of Saudi Arabia:** Deutsche Securities Saudi Arabia LLC Company (registered no. 07073-37) is regulated by the Capital Market Authority. Deutsche Securities Saudi Arabia may undertake only the financial services activities that fall within the scope of its existing CMA license. Its principal place of business in Saudi Arabia: King Fahad Road, Al Olaya District, P.O. Box 301809, Faisaliah Tower - 17th Floor, 11372 Riyadh, Saudi Arabia.

**United Arab Emirates:** Deutsche Bank AG in the Dubai International Financial Centre (registered no. 00045) is regulated by the Dubai Financial Services Authority. Deutsche Bank AG - DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA license. Principal place of business in the DIFC: Dubai International Financial Centre, The Gate Village, Building 5, PO Box 504902, Dubai, U.A.E. This information has been distributed by Deutsche Bank AG. Related financial products or services are available only to Professional Clients, as defined by the Dubai Financial Services Authority.

**Australia and New Zealand:** This research is intended only for "wholesale clients" within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act, respectively. Please refer to Australia-specific research disclosures and related information at <https://australia.db.com/australia/content/research-information.html> Where research refers to any particular financial product recipients of the research should consider any product disclosure statement, prospectus or other applicable disclosure document before making any decision about whether to acquire the product. In preparing this report, the primary analyst or an individual who assisted in the preparation of this report has likely been in contact with the company that is the subject of this research for confirmation/clarification of data, facts, statements, permission to use company-sourced material in the report, and/or site-visit attendance. Without prior approval from Research Management, analysts may not accept from current or potential Banking clients the costs of travel, accommodations, or other expenses incurred by analysts attending site visits, conferences, social events, and the like. Similarly, without prior approval from Research Management and Anti-Bribery and Corruption ("ABC") team, analysts may not accept perks or other items of value for their personal use from issuers they cover.

8 March 2019

Investor Positioning and Flows



Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be reproduced, distributed or published without Deutsche Bank's prior written consent. Copyright © 2019 Deutsche Bank AG



## David Folkerts-Landau

Group Chief Economist and Global Head of Research

Pam Finelli  
Global Chief Operating Officer  
Research

Michael Spencer  
Head of APAC Research

Steve Pollard  
Head of Americas Research  
Global Head of Equity Research

Anthony Klarman  
Global Head of  
Debt Research

Kinner Lakhani  
Head of EMEA  
Equity Research

Joe Liew  
Head of APAC  
Equity Research

Jim Reid  
Global Head of  
Thematic Research

Francis Yared  
Global Head of  
Rates Research

George Saravelos  
Head of FX Research

Peter Hooper  
Global Head of  
Economic Research

Andreas Neubauer  
Head of Germany Research

Spyros Mesomeris  
Global Head of Quantitative  
and QIS Research

## International Production Locations

### Deutsche Bank AG

Deutsche Bank Place  
Level 16  
Corner of Hunter & Phillip Streets  
Sydney, NSW 2000  
Australia  
Tel: (61) 2 8258 1234

### Deutsche Bank AG

Mainzer Landstrasse 11-17  
60329 Frankfurt am Main  
Germany  
Tel: (49) 69 910 00

### Deutsche Bank AG

Filiale Hongkong  
International Commerce Centre,  
1 Austin Road West, Kowloon,  
Hong Kong  
Tel: (852) 2203 8888

### Deutsche Securities Inc.

2-11-1 Nagatacho  
Sanno Park Tower  
Chiyoda-ku, Tokyo 100-6171  
Japan  
Tel: (81) 3 5156 6770

### Deutsche Bank AG London

1 Great Winchester Street  
London EC2N 2EQ  
United Kingdom  
Tel: (44) 20 7545 8000

### Deutsche Bank Securities Inc.

60 Wall Street  
New York, NY 10005  
United States of America  
Tel: (1) 212 250 2500