

## Flows & Liquidity

Still waiting for corporate action

- This year's equity market rally lacked corporate participation.
- In fact, corporates exhibited unusually contrarian behavior this year by reducing their M&A and share buyback volumes.
- This is surprising in a year when equities rallied strongly and uncertainty proxies appear to have declined sharply.
- On our models, one potential factor explaining this behavior is the decline in the relative cost between equities and debt, i.e. the Equity Risk Premium.
- Our S&P500 Equity Risk Premium proxy declined by more than 200bp since the summer of 2012, which by itself could make it less attractive for corporates to engage in debt-financed equity purchases.
- Callability in HY credit a secondary concern into 2014.
- Risk parity funds appear to be pretty long duration.
- THE NEXT ISSUE OF F&L WILL BE PUBLISHED ON THE 3rd OF JAN 2014. We wish our readers a happy holiday season.

- Despite its strength, this year's bull market in equities had a missing component: corporate participation.
- Global M&A activity is down 10% vs. the previous year in dollar terms and even more in volume terms, i.e. in terms of dollar value divided by the capitalization of the equity market. In fact, global M&A activity, which includes LBOs, has been declining in volume terms since 2007 as shown in Figure 1.
- Announced gross share buyback activity is up 10% in dollar terms this year, but it is also lagging the 16% increase in global equity prices. Gross share buyback activity declined in volume terms in both 2012 and 2013.
- In addition, corporates issued a lot more equity this year. Equity issuance, i.e. initial and secondary offerings, increased sharply this year, partly driven by the private equity industry taking advantage of bullish equity investor sentiment.
- The private equity industry had suffered from a bottleneck after the Lehman crisis as the unavailability of profitable exits created a self reinforcing cycle of an increasing amount of unrealized capital and pressure to return capital to investors, coupled with a difficult fund raising environment, as investors became less able or willing to fund new commitments.

### Global Asset Allocation

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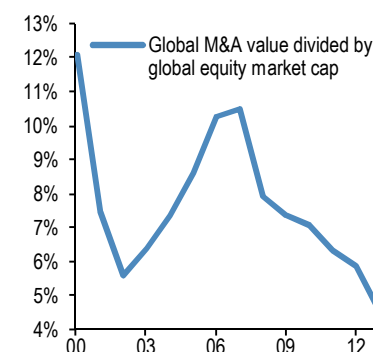
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**Figure 1: Global M&A volumes on a declining trend**

Global M&A dollar value divided by global equity market cap. M&A dollar value includes LBOs

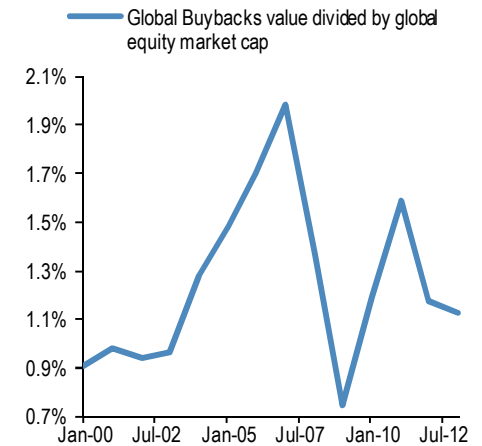


Source: Bloomberg, Datastream

- This bottleneck has started improving in recent years. According to Preqin and Bain Capital, distributions have exceeded contributions since 2011, allowing investors to increase their private equity investment activity. The jump in IPO activity this year has provided further relief. But with more than \$2tr of unsold assets, two times more than the private equity's dry powder, removing this bottleneck will likely take a long time. This could mean that, from a flow perspective, the private equity industry will continue to partly offset equity investors' demand by supplying more equity for years to come.
- How high is net equity issuance currently? Figure 3 proxies net equity issuance by subtracting announced share buybacks and LBOs, which cause equity withdrawal, from total equity offerings, i.e. IPOs and secondary offerings, which increase the share count. Figure 3 shows that equity issuance turned a lot less supportive for equity markets (i.e. red line increased) in Q4 relative to previous quarters and in 2013 as a whole vs. 2012. We note this is both because of a slowing in announced share buybacks but also an increase in IPO/secondary offering activity.
- This behavior is rather unusual, as typically net equity issuance tends to decline during bull equity markets and become very negative. This is because during bull equity markets corporates tend to chase momentum by boosting M&A, LBO and share buyback activity by more than equity offerings, thus amplifying the equity rally, even that eventually meant that they bought equities at the peak. This is shown clearly in Figure 3 where the red line was deeply negative in 2006/2007 at the peak of the previous equity cycle, but it is unusually positive in the current equity cycle. In fact, the Q4 level of our proxy for net equity issuance is close to the peak seen during 2009 after the Lehman crisis. In a way, corporates preferred to "sell" equities to equity investors this year, rather than joining them and amplifying the rally.
- What could explain this unusually contrarian behavior by corporates in a year when equities are up 25% in the US and 16% globally?
- One potential explanation could be the behavior of the private equity industry. As mentioned above the private equity industry faced a bottleneck after the Lehman crisis and is only at the beginning of working through an unprecedented €2tr backlog. However, in our view, this explains only a small part of this year's contrarian corporate behavior. IPOs have risen, but at \$290bn or 0.6% of the \$47tr capitalization of the global equity market, they are about average. In fact, they were higher at 0.9% of the global equity market capitalization in 2007.
- What is really unusual is the level of M&A and share buyback activity which at a percentage of global equity market capitalization is rather low. Figure 1 shows that not only the M&A share of equity market capitalization has been declining since 2007, but that it is also lower than it was in 2002 at the bottom of the previous equity cycle. Similarly, Figure 2 shows that the share of announced global share buybacks at 1.1% is below its historical average.
- Another potential explanation is uncertainty. This is often mentioned as a reason to explain corporates' cautious behavior but most proxies of uncertainty declined rather than rose this year. Both macro and market volatility declined this year. The policy-related economic uncertainty proxy constructed by Baker, Bloom and Davis is also giving a similar message. They measure policy-related economic uncertainty via three types of underlying components. One component quantifies newspaper coverage of policy-related economic uncertainty. A second component reflects the number of federal tax code provisions set to expire in future years. The third component uses disagreement among economic forecasters as a proxy for uncertainty. This

**Figure 2: Global share buyback volumes declined further this year**

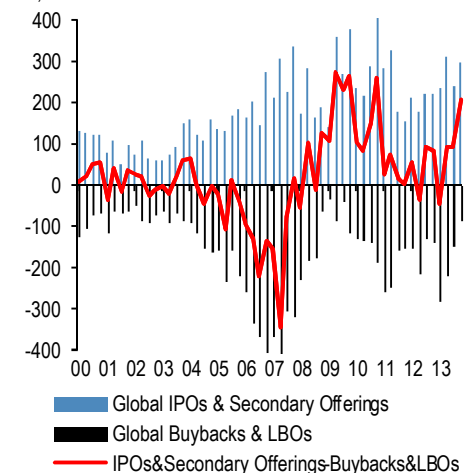
Global gross share buybacks dollar value divided by global equity market cap



Source: Flow of Funds, central banks

**Figure 3: IPOs & Secondary Offerings - Buybacks & LBOs.**

\$bn per quarter, last observation is for Q4 upto Dec 12, 2013.



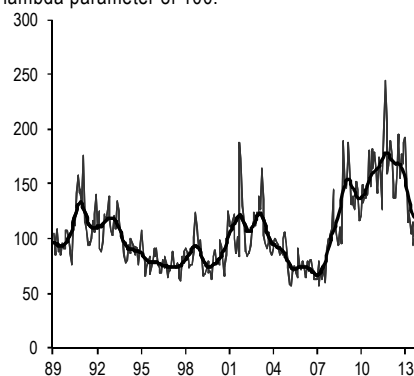
Source: Bloomberg, Reuters and J.P. Morgan calculations

uncertainty proxy is shown in Figure 4 along with its smoothed version. Uncertainty rose sharply after the Lehman crisis. It appears to have peaked at the end of 2011 with a declining trend since then. This uncertainty proxy declined sharply during the second and third quarters of the year and has retraced more than half of the rise seen between 2007 and 2011.

- So, we note that uncertainty is also a unsatisfactory explanation as it declined this year at the same time as corporates decided to buy less of their own equity. It might reflect a lag in corporate behavior, i.e. it might take time until corporates respond to declining uncertainty.
- But we see another potential explanation. The decline in the equity risk premium relative to bonds is, by itself, making it less attractive for corporates to purchase their equity by issuing debt. Our proxy of the S&P500 equity risk premium (ERP) has declined from a peak of 6.9% in the summer of 2012 to 4.8% currently, as a result of the rally in equities and the rise in bond yields.
- To quantify the impact of declining ERP we use a forecasting model for net debt minus net equity issuance by US non-financial corporates as produced by US Flow of Funds. The Flow of Funds measure of net equity issuance is different from that in Figure 3 as it captures actual rather than announced share buybacks, the impact from employee stock programs, as well as the equity withdrawal impact of M&A activity. Figure 3 only captures the equity withdrawal impact of LBOs, as it is difficult with published aggregated M&A data to calculate exactly how much equity is actually withdrawn.
- Our model to forecast relative debt over equity issuance by US non-financial corporates is based on findings in the corporate finance literature on the optimal capital structure. This literature finds that, while there remains a lot of mystery about how companies make decisions on leverage, they generally first use retained earnings, then debt, and only rarely equities to finance capital investment. New equity issuance in the US reflects the combination of M&A/LBO/share buyback/IPO/secondary offering transactions, and on net, companies buy back, rather than issue, shares. CEOs do look at the relative cost of equities (for buybacks) and debt in deciding debt versus equity issuance. Financial distress, uncertainty, and the risk of downgrading are restraining forces on debt issuance.
- Using quarterly US Flow of Funds data on corporate debt and equity issuance (the latter is typically negative due to buybacks) since 1983, we find that corporate debt minus equity issuance as % of GDP is well explained by past default rates of high-yield companies, the equity risk premium, and cash flows (as % of GDP).
- Table 1 shows that the higher the equity risk premium relative to bonds, the lower the recent default experience, and the higher the cash flows i.e. profit margins, the more US corporates will issue debt and buy back shares. The latter two are cyclical variables that will also capture that fact that corporates can gain more from the corporate tax deduction on interest on debt during strong economic periods when profits are high. This similarly fits with the “pecking order” hypothesis on issuance which states that capital investment, which is high during a boom, will be funded by debt before it is funded by new share issuance.
- The model can be used for forecasting as we find that the three drivers affect leverage with a clear time lag. Using the recent experience of the three drivers — low default rates, high equity risk premium, and high profit margins — it should not be a surprise that it projects that US companies will issue a lot more debt than equities over the coming two years. The model projects that US debt versus equity issuance will rise from a current 7% of US GDP pace to around

**Figure 4: Economic policy uncertainty proxy**

US monthly index constructed by Baker, Bloom and Davis [www.policyuncertainty.com](http://www.policyuncertainty.com). We smooth the series by applying a Hodrick Prescott filter with a lambda parameter of 100.



Source: [www.policyuncertainty.com](http://www.policyuncertainty.com)

**Table 1: Forecasting debt-equity issuance for US non-financial corporates**

quarterly data between 1983 Q4 to 2013 Q3, the S&P500 Equity Risk Premium is based on our model for the S&P500 described in “A Fair Value Model for US Bonds, Credit and Equities”, standard errors in parenthesis

$$\begin{aligned}
 &\text{debt-equity issuance as \% US GDP} \\
 &= -12.8 \quad (4.1) \\
 &+ 0.76 \times \text{S\&P500 ERP}(-8) \quad (0.24) \\
 &- 0.11 \times \text{HY default rate}(-8) \quad (0.11) \\
 &+ 2.19 \times \text{cash flows as \% of GDP}(-8) \quad (0.48)
 \end{aligned}$$

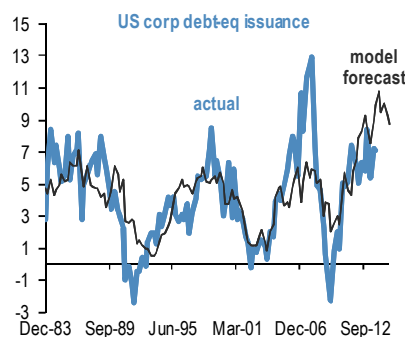
R<sup>2</sup>-adj 41%

Standard Error 2.3%

Source: J.P. Morgan

**Figure 5: Forecasting debt-equity issuance for US non-financial corporates**

debt-equity issuance as % US GDP, quarterly data between 1983 Q4 to 2013 Q3. Data after that are Table 1 model forecasts to the end of 2014.



Source: J.P. Morgan, Federal Reserve

9% by the end of next year. Although there is further upside in debt–equity issuance activity according to this model, this is less than a year ago when the model was projecting that US debt versus equity issuance will rise to more than 11% of US GDP.

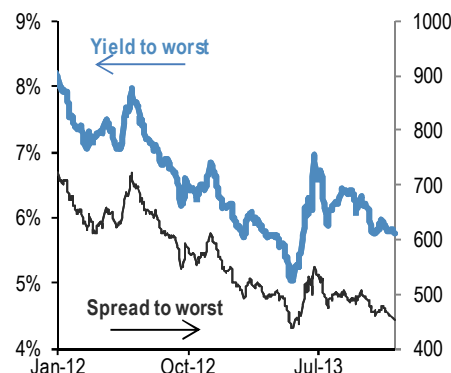
### Callability in HY credit a secondary concern into 2014

- The improvement in the global economic outlook and prospects for Fed tapering has seen 5-year US Treasury yields rise to their highest level since early September. Yields on US domestic HY bonds have declined, and combined with the higher Treasury yields spreads are now approaching their May 2013 lows (Figure 6). They are helped by default rates declining to their lowest levels since 2007 and the benign outlook for defaults over the next few years (we expect default rates to stay below 2% through 2015, *US Credit Strategy Weekly Update*, Dec 6).
- An important feature of the high yield asset class, particularly as yields grind lower, is embedded call provisions. These create explicit caps on the prices of bonds, as they allow issuers to buy back outstanding debt at a fixed premium to par. And they result in callable bonds exhibiting negative convexity (i.e. the price increases at a decreasing rate as the yield declines) as the incentive for an issuer to call the bond increases as yields decline. In other words, bondholders have sold the issuer an option that increases in value as yields decline, capping further gains in prices.
- Where are these bonds trading relative to their call prices? Figure 7 shows call prices relative to current prices for bonds in the iBoxx \$ and EUR liquid high yield indices. We estimate that around 68% of bonds in the iBoxx \$ index, contain call provisions. And of these, nearly 80% trade above par and nearly 60% trade above the call price. This suggests that further scope for price appreciation is increasingly influenced by the risk that issuers call these bonds early as the call date approaches. And the call dates for nearly half of the bonds in the iBoxx \$ liquid high yield index fall due in the next three years (Figure 7).
- That said, to think about the significance of the above figures, we translate the premia at which the bonds trade to call prices into a percentage of the index price across years. Figure 8 shows that investors in high yield credit could lose 20-70bps on the \$ index, around 20bps on the EUR index, per year from calls at current prices. Compared to the swings we have seen in yields and spreads this year, this may have been a secondary concern. But to the extent that the embedded options limit the potential upside for investors holding callable bonds, investors should be aware of bonds trading above call prices as call dates approach.
- For leveraged loans, negative convexity is a more immediate concern, because unlike bonds they carry no call protection. That is, they can be 'flexed down' such that coupons are reset in the event that the loans trade above par. According to our strategists, 86% of leveraged loans trade close to or slightly above par.

### Risk parity funds appear to be pretty long duration

- Risk parity funds and CTAs had been under intense focus in May/June and were partly blamed for intensifying the May/June bond selloff. Both Risk parity funds and CTAs apply leverage and are said to have been very long duration just before the selloff began at the beginning of May. It is posited that as rates started rising, they either started getting out of long duration positions or they sold Treasury futures as a hedge, either way accelerating the bond selloff. What evidence do we have?

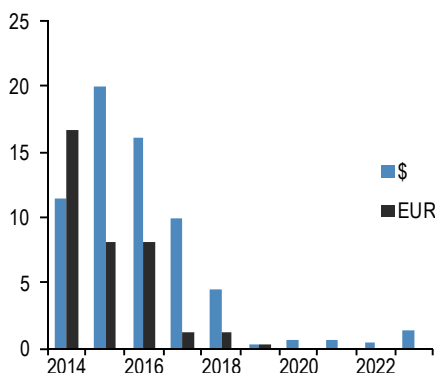
Figure 6: US Domestic HY bond yields and spreads



Source: J.P. Morgan

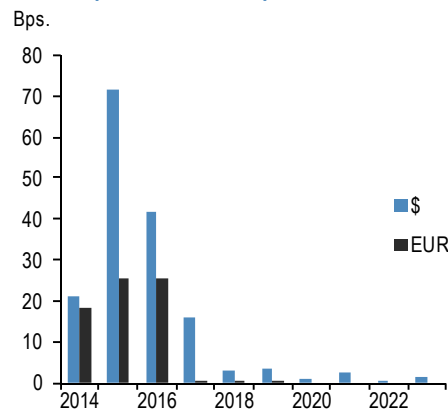
Figure 7: Call schedules for iBoxx \$ and EUR Liquid High Yield indices

Share of callable bonds with call dates in each year as % of index.



Source: J.P. Morgan, Bloomberg and Markit

Figure 8: Premium to call price as a percentage of index price for iBoxx Liquid HY indices



Source: J.P. Morgan, Bloomberg and Markit

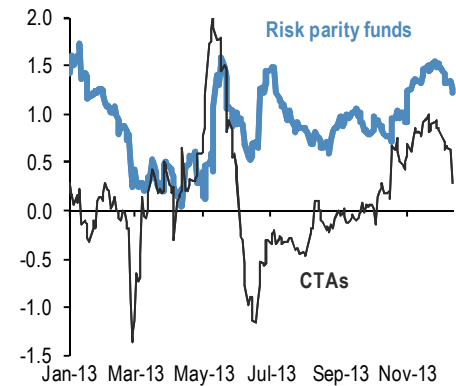
- Both these universes are decent in size and they apply leverage. CTAs are a \$200bn universe based on the data from HFR, accounting for 10% of HF assets globally. They apply leverage via positions on futures contracts. Risk parity funds are a \$100bn universe on our estimates and typically leverage their portfolio in order to reach some volatility target (see *The risks of risk parity*, Matthew Lehmann, July 3 for a more detailed look at risk parity).
- One way of assessing the position of risk parity funds and CTAs is to calculate their beta with respect to bonds and equities. We do this via a bivariate linear regression which regresses the daily returns of HFRX Macro Systematic Diversified or the average daily return of 3 risk parity funds (ABRYX, AQRIX, PDREX) vs. daily returns of the S&P500 and Barcap US Agg Bond index. See Figure 9 for bond betas based on 21-day rolling regression.
- Figure 9 shows that CTAs cut bond exposures much more rapidly than risk parity funds in recent weeks. The bond betas of risk parity funds are back to its peak levels and CTA's seen a sharp sell-off more recently. Admittedly, with only 3 funds behind our risk parity index, it is more difficult to draw conclusions about the behavior of risk parity funds from Figure 9.

### ETF flows and spec position changes YTD

- In this section we provide a recap of the change in ETF flows and CFTC spec positions YTD.
- Figure 10 shows the percentage change in ETF AUM since beginning of the year. Equity ETFs gained the most in terms of AUM, mainly because of inflows in Japan and US equities, while commodities lost the most. Within bonds, HY bonds gained the most in terms of AUM. Both EM bond and EM equity ETFs saw large reductions in their AUM YTD.
- What about spec positions? Figure 11 shows the changes in CFTC net spec position (in z-score terms) for various asset classes. Spec investors appear to have added exposure to USD and VIX the most YTD. They also appear to have reduced their exposure to AUD and CAD the most.

**Figure 9: Beta to bond returns**

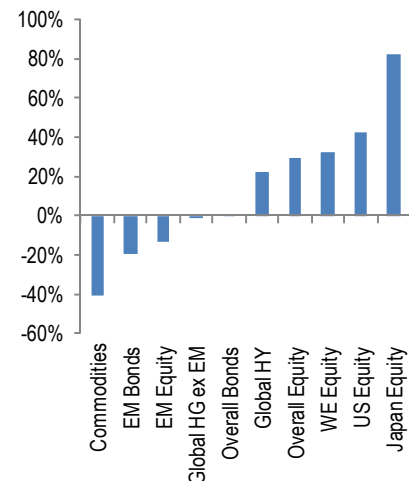
21-day rolling beta to bonds. Bond beta is based on a bivariate linear regression which regresses the daily returns of HFRX Macro Systematic Diversified or the average daily return of 3 risk parity funds (ABRYX, AQRIX, PDREX) vs. daily returns of the S&P500 and Barcap US Agg Bond index.



Source: ICI.org, Bloomberg

**Figure 10: ETF AUM change YTD**

% change in ETF AUM since the beginning of the year

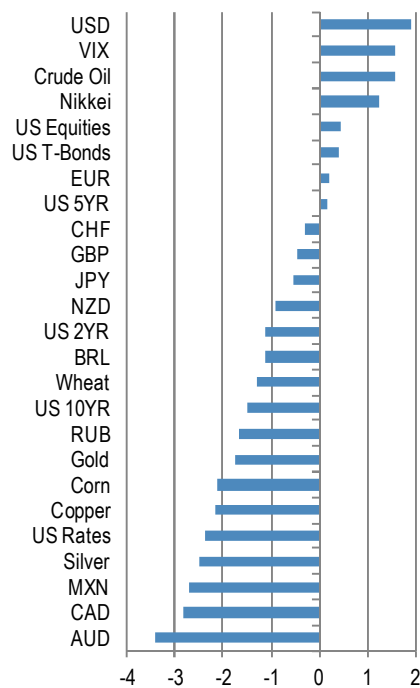


Source: Bloomberg, J.P. Morgan



**Figure 11: Spec position change YTD**

Change in net spec positions z-scores since beginning of the year. Look at chart A11 for detailed explanation on how this is calculated.



Source: CFTC, Bloomberg, J.P. Morgan

## Table A1: Weekly flow monitor

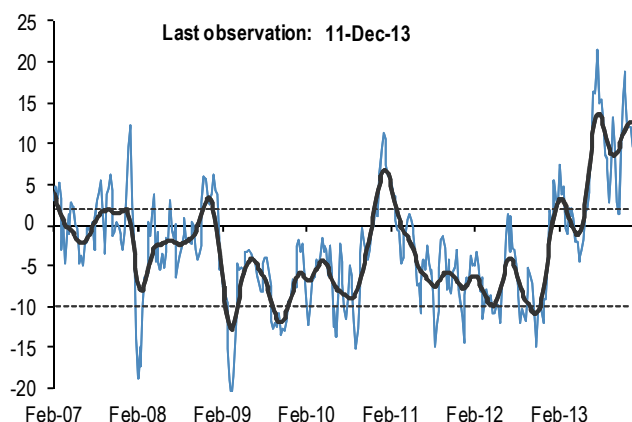
\$bn, Includes US domiciled Mutual Fund flows from ICI with a one week lag and globally domiciled ETF flows from Bloomberg. Current week data only includes ETF flows.

MF & ETF Flows	11-Dec	4 wk avg	13 wk avg	2013 avg
All Equity	4.04	6.9	7.6	5.9
All Bond	0.85	-2.8	-2.9	-0.9
US Equity	3.58	2.4	3.3	2.6
Intl. Equity	0.46	4.2	4.4	3.5
Taxable Bonds	0.86	-1.9	-1.9	0.1
Municipal Bonds	-0.01	-0.9	-1.0	-1.0

Source: Bloomberg, ICI, J.P. Morgan

## Chart A1: Fund flow indicator

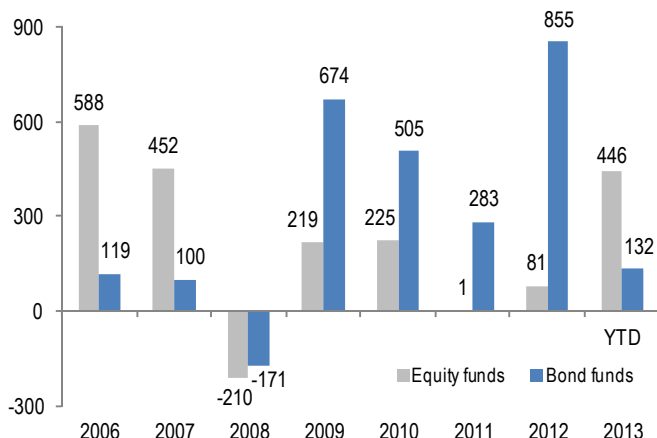
**Difference between flows into Equity and Bond funds:** \$bn per week. Flow includes US domiciled Mutual Fund and globally domiciled ETF flows. Current week data only includes ETF flows. The thin blue line shows the 4-week average of this difference. The thick black line shows a smoothed version of the same series. The smoothing is done using a Hodrick-Prescott filter with a Lambda parameter of 100.



Source: Bloomberg, ICI, J.P. Morgan

## Chart A2: Global equity & bond fund flows

\$bn per year. Flows include global MF and ETF flows. MF flows are from ICI (global flows up to Q2'13 is from ICI and data since then up to now is combination of EFAMA and ICI). ETF flows are from Bloomberg.



Source: Bloomberg, ICI, EFAMA, J.P. Morgan

## Table A2: Weekly corporate flows

\$bn, Gross bond issuance includes all corporates incl. financials. United States issuance is all issuance globally by US companies and W. European issuance is all issuance globally by W. European companies. M&A is announced deal value and Buybacks are announced transactions. Y/Y change is change in 13 week average over the same period last year. Equity supply is based on announced deals, not completed.

Equity Supply	13-Dec	4 wk avg	13 wk avg	y/y chng
Global IPOs	0.73	1.8	3.8	163%
Secondary Offerings	4.81	5.5	5.7	89%
<b>Gross corporate bond issuance</b>				
United States	16.1	28.8	29.3	-14%
Western Europe (€bn)	6.5	17.3	19.1	-6%
Japan	4.2	3.2	2.7	-20%
EM	4.8	13.4	16.5	-31%
<b>Corporate announcements</b>				
M&A - Global	37.0	40.9	41.8	-16%
- US Target	22.9	14.6	14.1	-19%
- Non-US Target	14.1	26.3	27.7	-13%
US buybacks	4.05	6.0	7.2	14%
Non-US buybacks	0.25	1.0	1.1	-30%

Source: Bloomberg, Dealogic, Thomson Reuters, J.P. Morgan

## Table A3: Monthly trading volume monitor

3 month avg. USTs are primary dealer transactions in all US government securities. JGBs are OTC volumes in all Japanese government securities. Bunds, Gold, Oil and Copper are futures. Gold includes Gold ETF's. Min-Max chart is based on Y/Y changes. The diamond is the current observation. The thin blue line marks the distance between the min and max for the complete time series. Y/Y change is change over the same 3m average period last year.

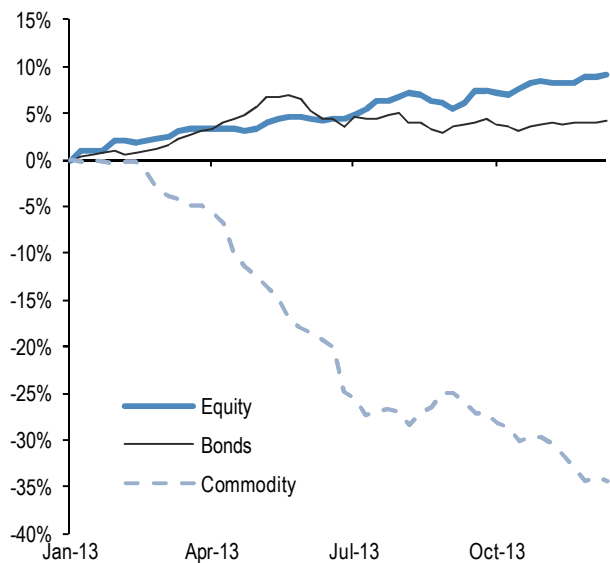
Equities	MIN	MAX	Nov-2013 (tr)	y/y chng
EM Equity*			\$1.29	50%
DM Equity*			\$3.65	27%
<b>Govt Bonds</b>				
USTs			\$2.08	-15%
JGBs*			¥822	13%
Bunds			€1.73	-11%
<b>Credit</b>				
US HG			\$0.24	7%
US HY			\$0.12	1%
US Convertibles			\$0.02	-12%
<b>Commodities</b>				
Gold			\$0.46	-40%
Oil			\$1.78	-38%
Copper			\$0.50	9%

Source: Bloomberg, Federal Reserve, TRACE, Japan Securities Dealer Association, WFE, J.P. Morgan. \* Data with one month lag

## ETF Flow Monitor (data as of Dec 11)

**Chart A3: Global Cross Asset ETF Flows**

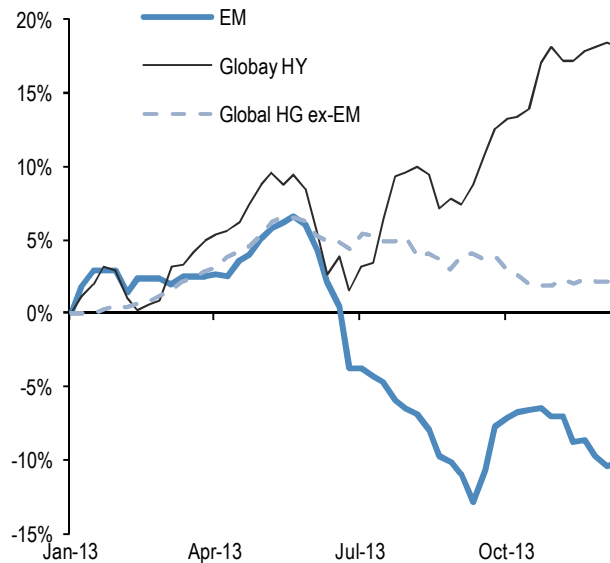
Cumulative flow into ETFs as a % of AUM.



Source: J.P. Morgan. Bloomberg

**Chart A4: Bond ETF Flows**

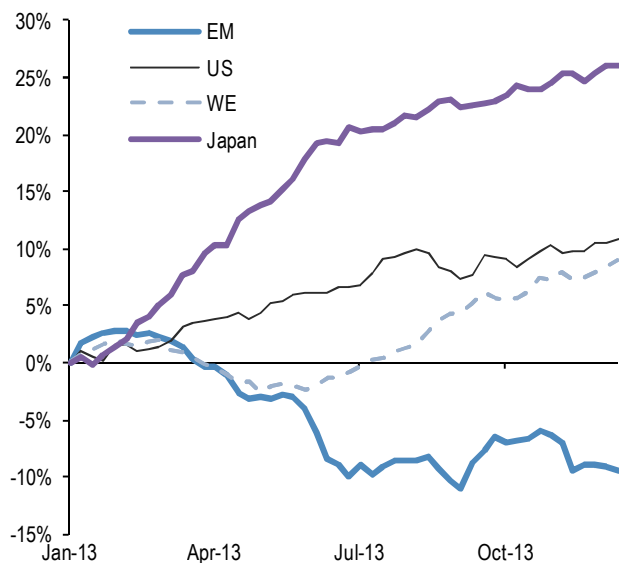
Cumulative flow into bond ETFs as a % of AUM.



Source: J.P. Morgan. Bloomberg

**Chart A5: Global Equity ETF Flows**

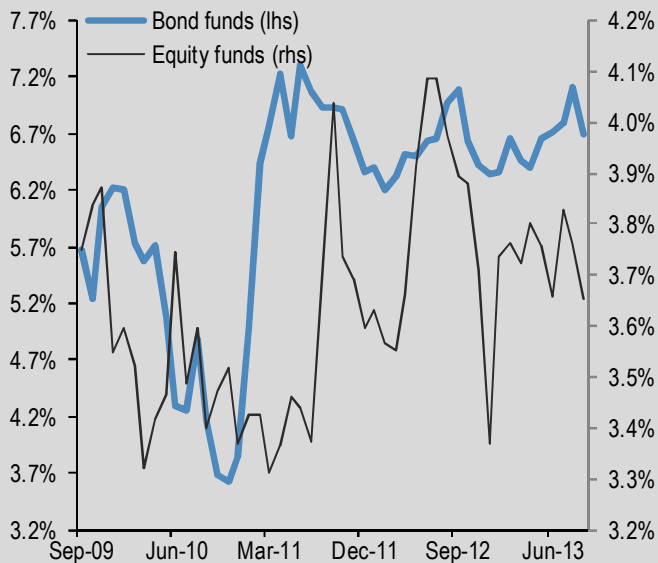
Cumulative flow into global equity ETFs as a % of AUM.



Source: J.P. Morgan. Bloomberg

**Chart A6: Mutual Fund Cash Positions**

Sum of US and Euro area domiciled mutual funds. Aggregate cash balances in USD at constant exchange rates as a proportion of total assets. As of Sep 2013.

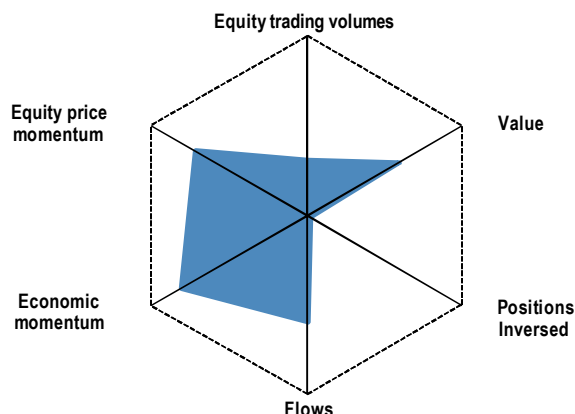


Source: J.P. Morgan, ECB, ICI



## Chart A7: Market health map

Each of the six axes corresponds to a key indicator for markets. The position of the blue line on each axis shows how far the current observation is from the extremes at either end of the scale. The dotted line shows the same but at the beginning of 2012 for comparison. For example, a reading at the centre for value would mean that risky assets are the most expensive they have ever been while a reading at the other end of the axis would mean they are the cheapest they have ever been. See explanation on the right for each indicator. Overall, the larger the blue area within the hexagon, the better for risky markets.



### Explanation of indicators:

All variables are expressed as the percentile of the distribution that the observation falls into. I.e. a reading in the middle of the axis means that the observation falls exactly at the median of all historical observations.

**Equity trading volumes:** The Y/Y change in the average daily trading volume of stocks on the NYSE.

**Value:** The slope of the risk-return tradeoff line calculated across USTs, US HG and HY corporate bonds and US equities (see GMOS p. 6, Loeys et al, Jul 6 2011 for more details).

### Conti... Explanation of indicators:

**Positions:** Difference between net spec positions on US equities and rates. See Chart A14.

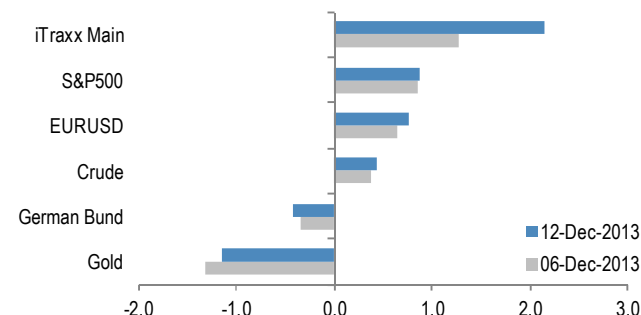
**Flow momentum:** The difference between flows into equity funds (incl. ETFs) and flows into bond funds. Chart A1. We then smooth this using a Hodrick-Prescott filter with a lambda parameter of 100. We then take the weekly change in this smoothed series as shown in Chart A1

**Economic momentum:** The 2-month change in the global manufacturing PMI. (See REVISITING: Using the Global PMI as trading signal, Nikolaos Panigirtzoglou, Jan 2012).

**Equity price momentum:** The 6-month change in the S&P500 equity index.

## Chart A8: Option skew monitor

Skew is the difference between the implied volatility of out-of-the-money (OTM) call options and put options. A positive skew implies more demand for calls than puts and a negative skew, higher demand for puts than calls. It can therefore be seen as an indicator of risk perception in that a highly negative skew in equities is indicative of a bearish view. The chart shows z-score of the skew, i.e. the skew minus a rolling 2-year avg skew divided by a rolling two-year standard deviation of the skew. A positive skew on iTraxx Main means investors favor buying protection, i.e. a short risk position. A positive skew for the Bund reflects a long duration view, also a short risk position.

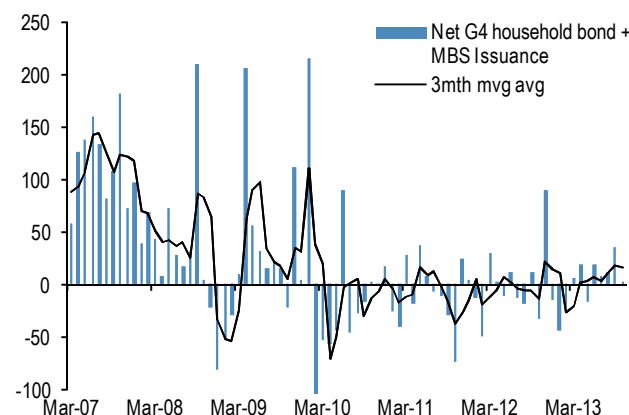


Source: Bloomberg, J.P. Morgan

## Credit growth

### Chart A9: G4 bank lending to households

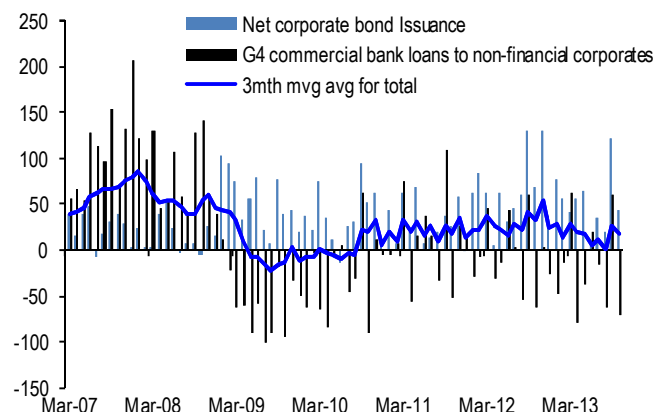
In \$bn, Quarterly changes in outstanding commercial bank loans to households, adjusted for changes in exchange rates and MBS net issuance. As of Oct. 2013.



Source: ECB, BoJ, BoE, Federal Reserve, Bloomberg and J.P. Morgan

### Chart A10: G4 non-financial corporate debt issuance

In \$bn, Bank lending to and net issuance of secured, unsecured and securitized bonds by US, Japanese and European non-financial corporates. Bank lending is adjusted for changes in exchange rates, net bond issuance is currency unadjusted. As of Oct. 2013.

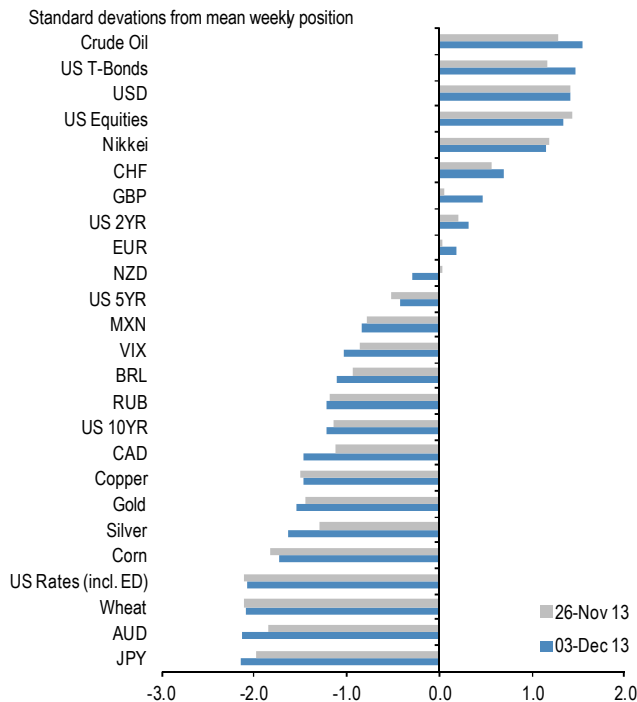


Source: ECB, BoJ, BoE, Federal Reserve, Bloomberg, Dealogic, J.P. Morgan

## Spec position monitors

### Chart A11: Weekly Spec Position Monitor

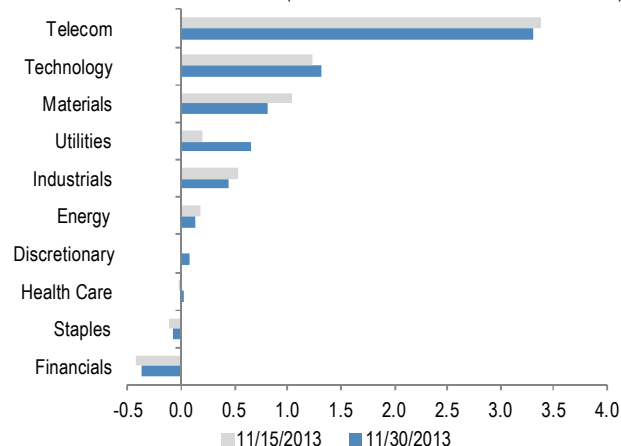
Net spec positions are the number of long contracts minus the number of short using CFTC futures only data. This net position is then converted to a USD amount by multiplying by the contract size and then the corresponding futures price. To proxy for speculative investors, commodity positions use the managed money category, while the other assets use the non-commercial category. The chart shows the z-score of these net positions, i.e. the current net position minus the average over the whole sample divided by the standard deviation of the weekly positions over the whole sample. US rates is a duration-weighted composite of the individual UST series plus the Eurodollar contract. The sample starts on the 13th of June 2006.



Source: Bloomberg, CFTC, J.P. Morgan

### Chart A13: S&P500 sector short interest

Short interest as a % of shares outstanding based on z-scores. A strategy which overweights the S&P500 sectors with the highest short interest z-score (as % of shares o/s) vs. those with the lowest, produced an information ratio of 0.7 with a success rate of 56% (see *F&L*, Jun 28, 2013 for more details)

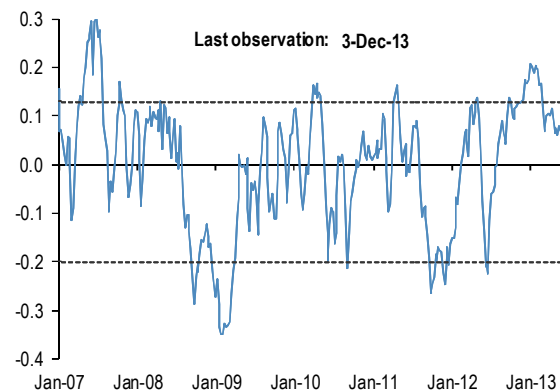


Source: NYSE, J.P. Morgan

### Chart A12: Spec position indicator on Risky vs. Safe assets

#### Difference between net spec positions on risky & safe haven assets

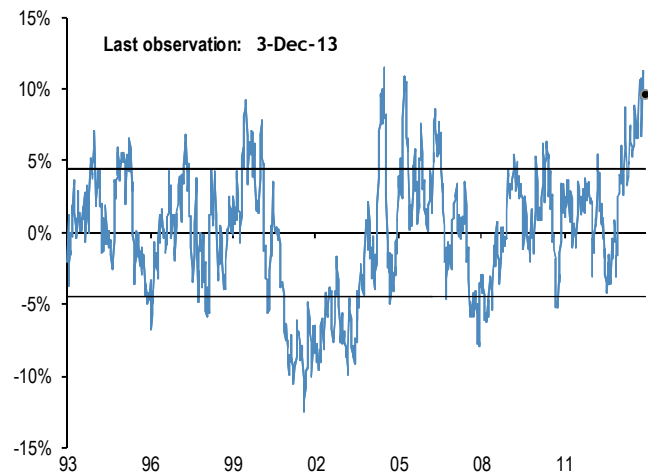
Net spec position is calculated in USD across 7 "risky" and 7 "safe" assets. These positions are then scaled by open interest and we take an average of "risky" and "safe" assets to create two series. The chart is then simply the difference between the "risky" and "safe" series. The final series shown in the chart below is demeaned using data since 2006. The risky assets are: Copper, AUD, NZD, CAD, RUB, MXN and equities (an aggregate of the S&P500, Dow Jones, NASDAQ & Nikkei). The safe assets are: Gold, VIX, JPY, CHF, Silver, an aggregate of the UST and Eurodollar futures & an aggregate USD index. The USD series is the inverse of the sum of positions in EUR, JPY, GBP, CHF, AUD, NZD, CAD, RUB and MXN futures. The UST series is a duration weighted aggregate of the Eurodollar, UST2YR, UST5YR, UST10YR, UST long bond & the UST Ultra long bond futures.



Source: CFTC, J.P. Morgan

### Chart A14: Spec position indicator on US equities vs. rates

Similar to Chart A12, this indicator is derived by the difference between total CFTC spec positions in US equity futures also (in \$bn) scaled by open interest (also in \$bn) minus a duration weighted composite of UST futures and scaled by open interest.

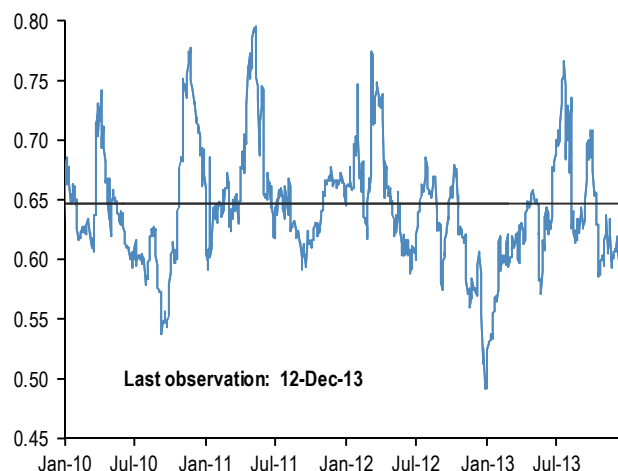


Source: CFTC, Bloomberg and J.P. Morgan

## Mutual fund and hedge fund betas

### Chart A15: Balanced fund equity exposure

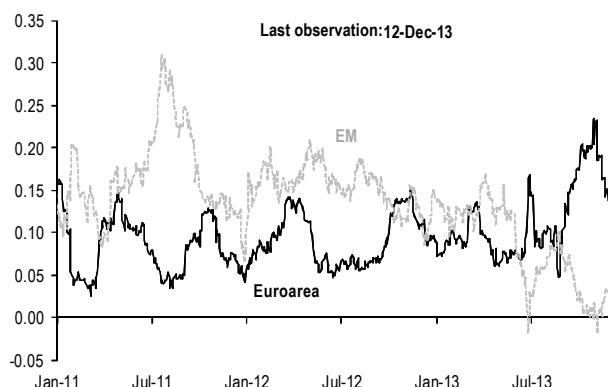
Rolling 21-day beta of balanced MF returns to returns on the S&P500. Balanced funds are top 20 US based funds by assets that have existed since 2006. It excludes tracker funds and funds with a low tracking error. The thin black line is the average during expansion since 2006.



Source: Bloomberg J.P. Morgan

### Chart A16: Equity mutual fund beta to Euro vs. US and EM vs. US equities relative performance

41-business-day rolling beta of the average daily returns of 20 biggest US-domiciled active equity funds against the daily relative return of Euro area vs. US equities and emerging markets vs. US equities. The betas are based on multiple regressions of the relative performance of the Eurostoxx50 vs. the S&P500, MSCI EM vs. the S&P500 and the S&P500 outright performance.

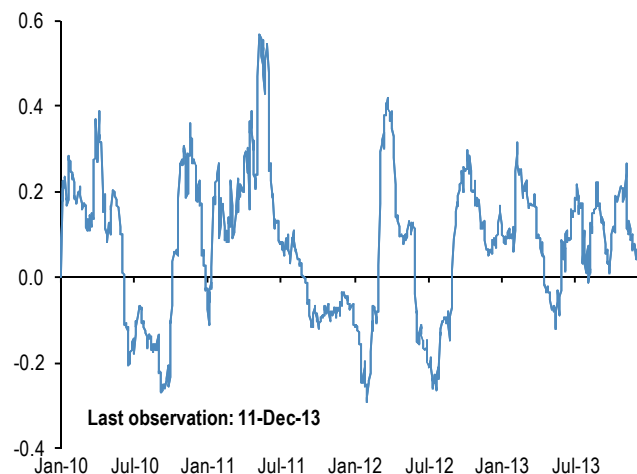


Source: Bloomberg J.P. Morgan

### Chart A17: Macro hedge fund monitor

#### Macro hedge fund equity exposure

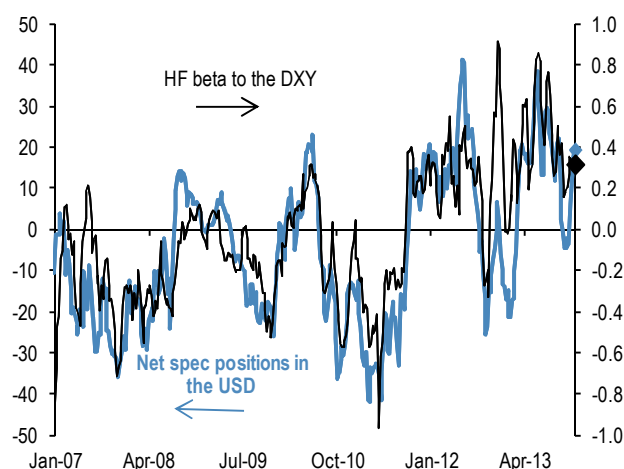
Rolling 21-day beta of macro fund returns to returns on the S&P500. The beta represents the average exposure of macro hedge funds to equities over the previous 21-days.



Source: Datastream, Bloomberg, J.P. Morgan

### Chart A18: Currency hedge fund USD exposure

The rolling 21-day beta of the Barclay Hedge FX index with the DXY vs. the net spec position in the USD as reported by the CFTC. Spec is the non-commercial category from the CFTC. Last observation is Dec 03, 2013.

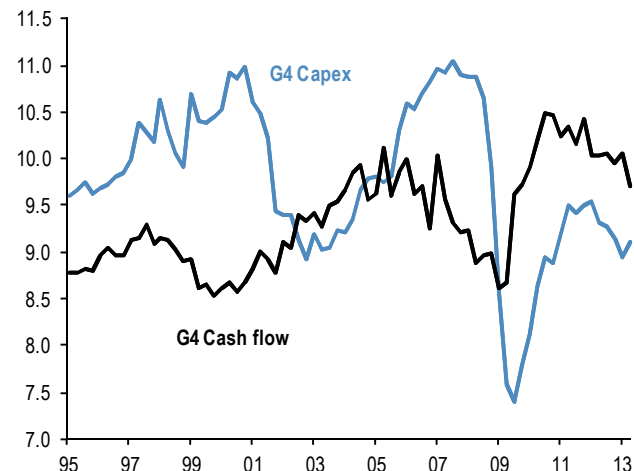


Source: CFTC, Datastream, Barclay Group, Bloomberg, J.P. Morgan

## Corporate activity

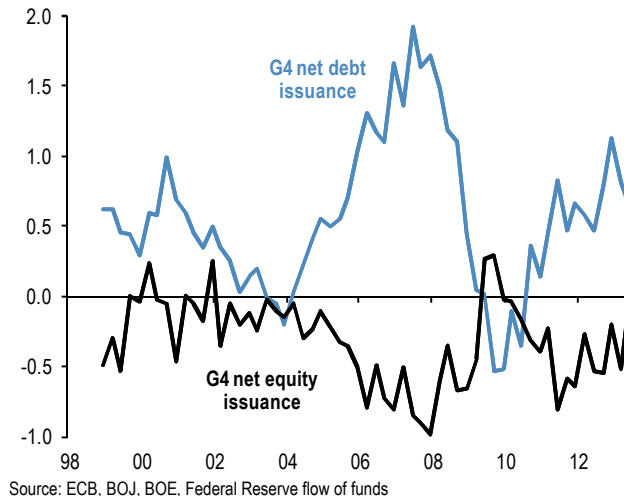
**Chart A19: G4 non-financial corporate capex and cash flow as % of GDP**

% of GDP, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q2 2013.



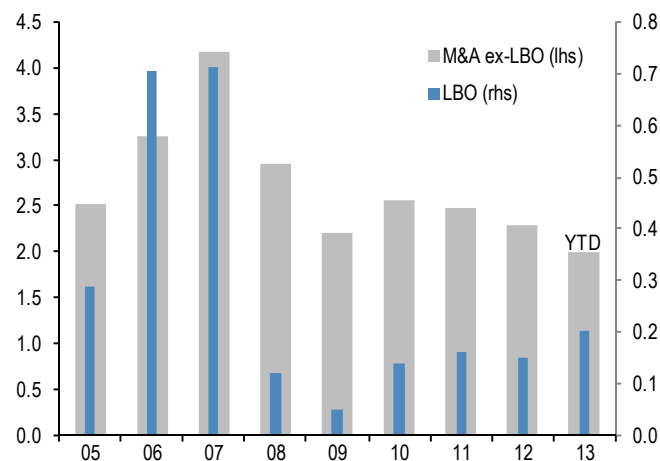
**Chart A20: G4 non-financial corporate sector net debt and equity issuance**

\$tr per quarter, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q2 2013.



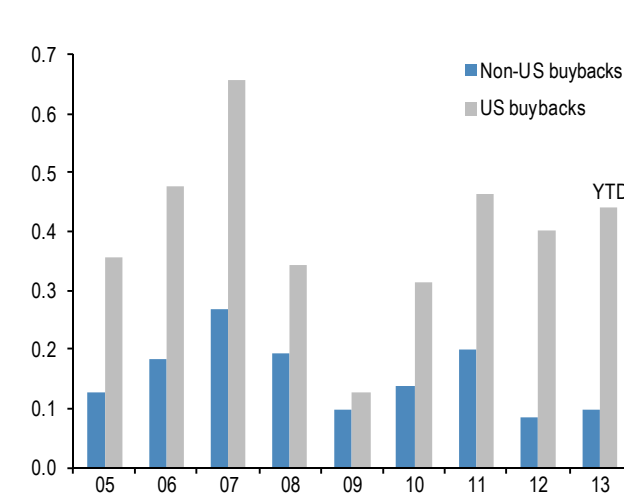
**Chart A21: Global M&A and LBO**

\$tr. YTD 2013 as of Dec 13, 2013. M&A and LBO's are announced.



**Chart A22: US and non-US share buybacks**

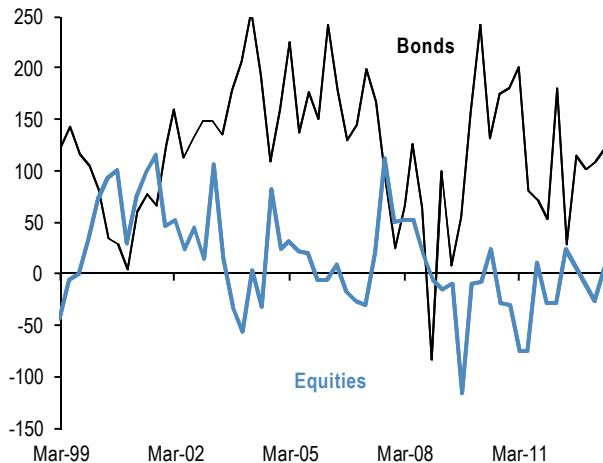
\$tr, YTD 2013 as of Dec 13, 2013. Buybacks are announced.



## Pension fund and insurance company flows

**Chart A23: G4 pension funds and insurance companies equity and bond flows**

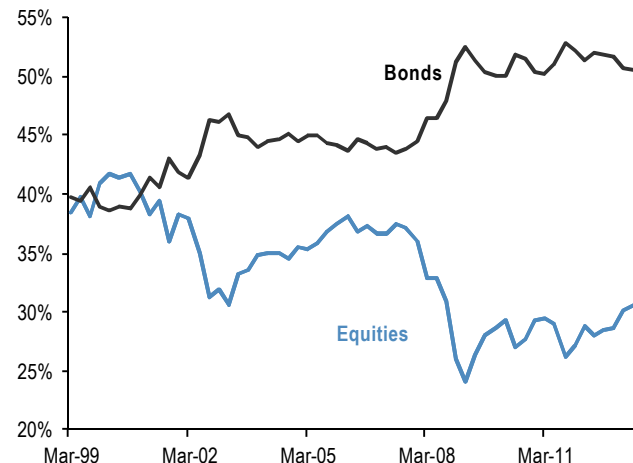
Equity and bond buying in \$bn per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q2 2013



Source: ECB, BOJ, BOE, Federal Reserve flow of funds

**Chart A24: G4 pension funds and insurance companies equity and bond levels**

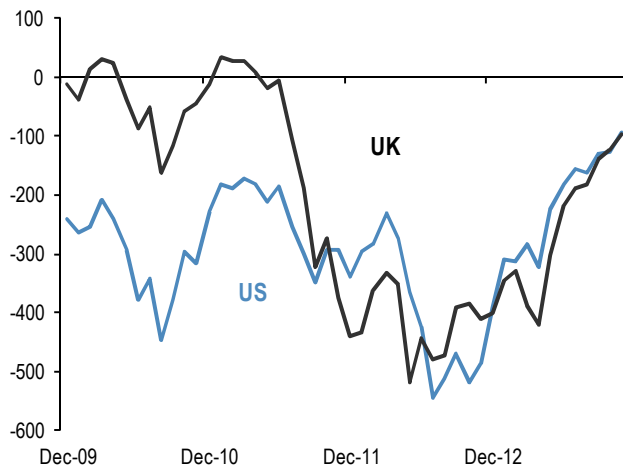
Equity and bond as % of total assets per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q2 2013.



Source: ECB, BOJ, BOE, Federal Reserve flow of funds

**Chart A25: Pension fund deficits**

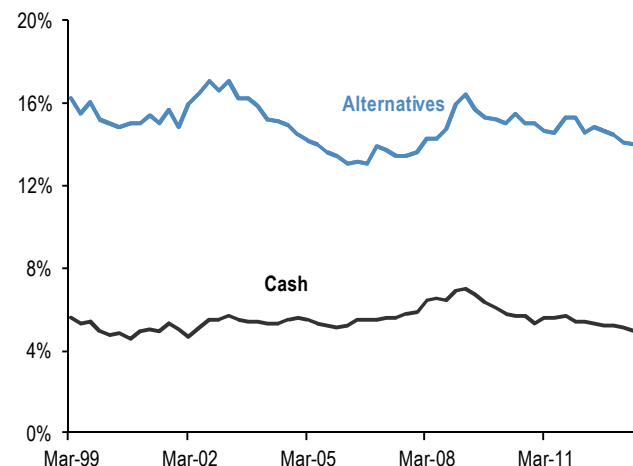
US\$bn. For US, funded status of the 100 largest corporate defined benefit pension plans, from Milliman. For UK, funded status of the defined benefit schemes eligible for entry to the Pension Protection Fund, converted to US\$ at current exchange rates. Last observation is Nov 2013.



Source: Milliman, UK Pension Protection Fund, J.P. Morgan

**Chart A26: G4 pension funds and insurance companies cash and alternatives levels**

Equity and bond as % of total assets per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q2 2013.



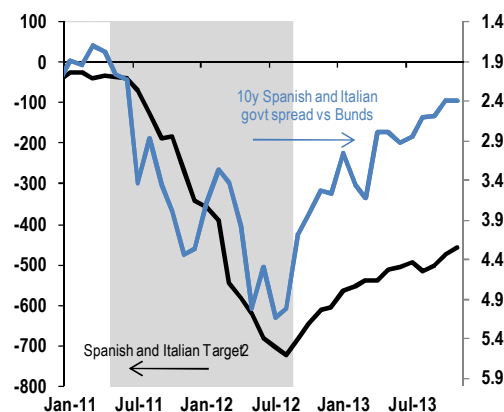
Source: ECB, BOJ, BOE, Federal Reserve flow of funds

## European Funding market monitor

**Table A4: Bank deposits and ECB reliance**

Deposits are non-seasonally adjusted Euro area non-bank, non-government deposits as of Oct 2013. We take total deposits (item 2.2.3. in MFI balance sheets minus "deposits from other financial institutions", which includes deposits from securitized vehicles and financial holding corporations among others. We also subtract repos (item 2.2.3.4) from the total figures to give a cleaner picture of deposits outside interbank borrowing. ECB borrowing and Target 2 balances are latest available. ECB borrowing is gross borrowing from regular MROs and LTROs. The Chart shows the evolution of Target 2 balance for Spain and Italy along with government bond spreads. The shaded area denotes the period between May 2011 and Aug 2012 when convertibility risk premia were elevated due to Greece exit fears.

€bn	Target 2 bal.	Target 6m chng	ECB borrowing	Depo 3m chng	Depo 12m chng
Austria	-42	-3	6	0.4%	1.8%
Belgium	-10	2	16	0.5%	5.2%
Cyprus	-8	2	2	-5.5%	-27.8%
Finland	18	-11	2	0.5%	0.1%
France	-60	13	75	-0.3%	4.2%
Germany	544	-45	9	0.6%	0.6%
Greece	-48	17	62	-1.1%	4.3%
Ireland	-75	11	41	1.1%	-0.2%
Italy	-215	13	228	0.9%	4.2%
Luxembourg	104	1	2	-2.0%	-5.8%
Netherlands	63	-23	11	-0.6%	0.5%
Portugal	-70	-3	49	-0.3%	0.1%
Spain	-241	44	232	0.6%	7.4%

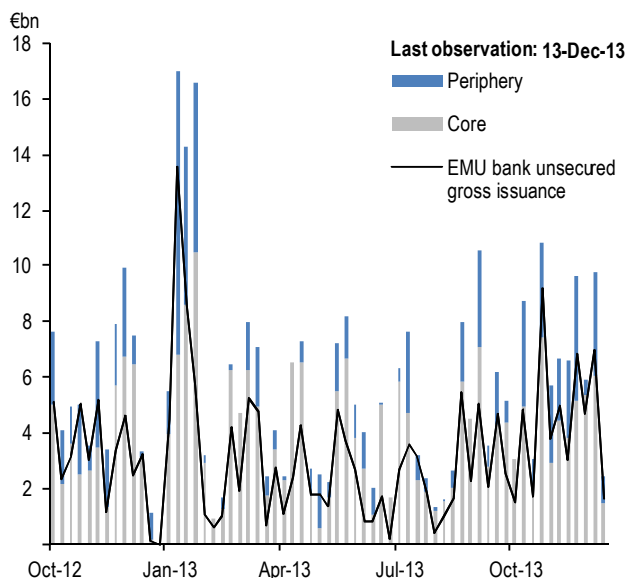


Source: Bloomberg, ECB, National Central Banks, J.P. Morgan

Source: Bloomberg, National Central Banks, J.P. Morgan

**Chart A27: Euro area gross bank debt issuance**

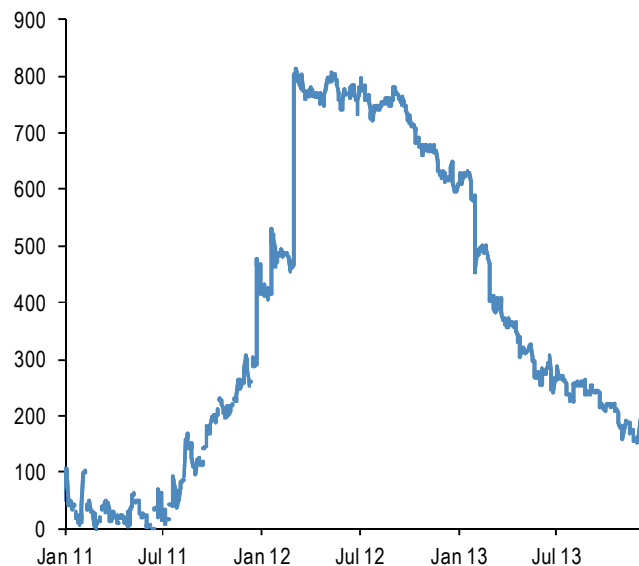
Includes secured, unsecured and securitized issuance in any currency. Excludes short-term debt (maturity less than 1-year) and self funded issuance (where the issuing bank is the only book runner).



Source: Dealogic, J.P. Morgan

**Chart A28: Excess cash in the Euro area banking system**

€bn, Measured as the difference between the amount in the ECB deposit facility minus that in the lending facility, plus the difference between the current account reserves that banks hold with the ECB minus required reserves. Last observation is Dec 11, 2013.



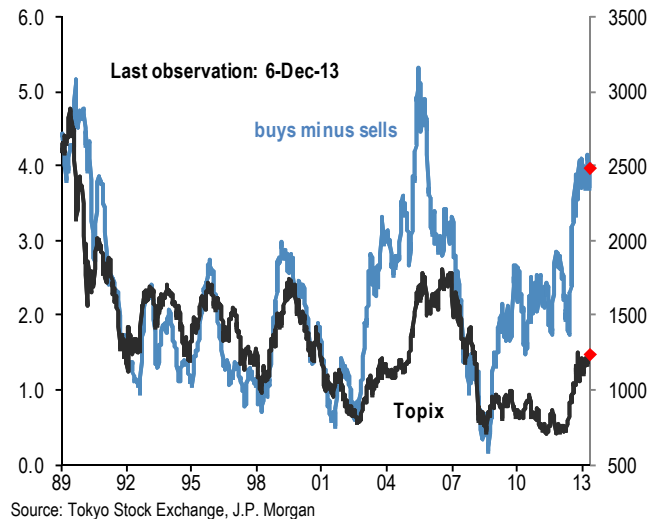
Source: ECB, J.P. Morgan



## Japanese flows and positions

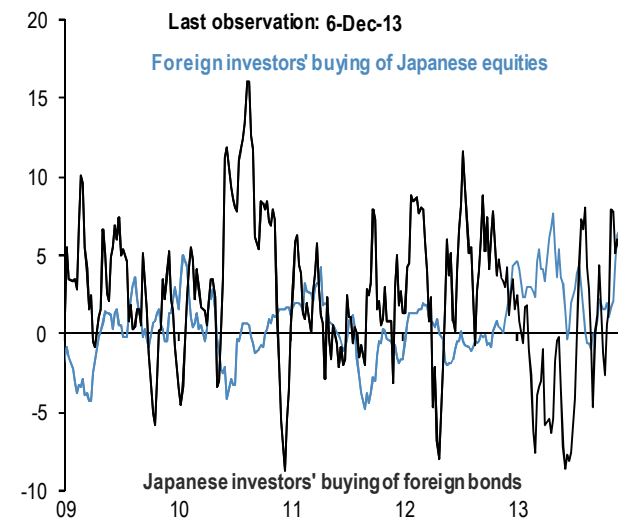
### Chart A29: Tokyo Stock Exchange Margin trading: total buys minus total sells

in bn of shares. Topix on right axis.



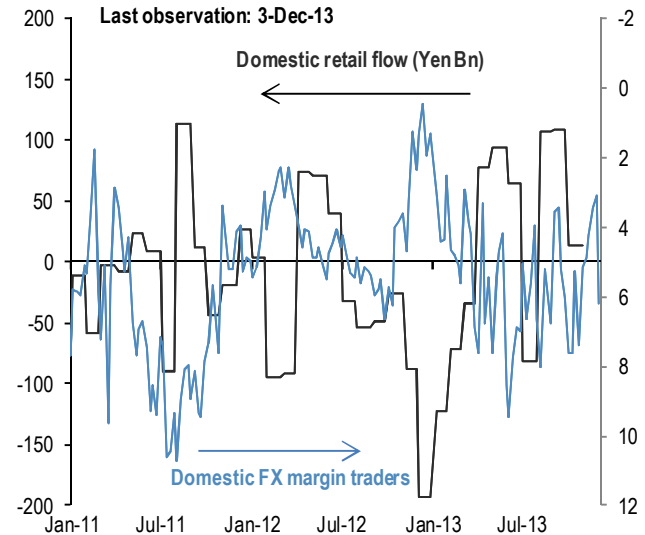
### Chart A31: Japanese equity buying by foreign investors. Japanese investors' buying of foreign bonds

\$bn, 4 week moving average.



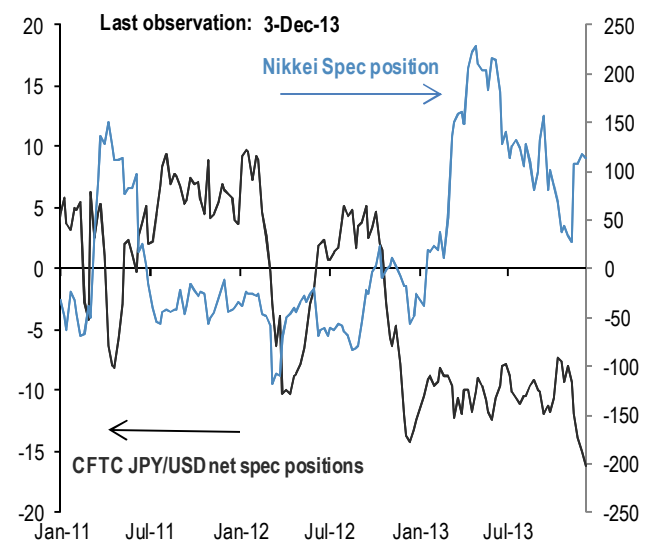
### Chart A30: Domestic retail flows

Retail domestic flows in JPY bn. FX margin trader positions are in JPY tr. FX margin trader positions are in reverse order. A higher number means a larger short and vice versa. Domestic retail flow data till Oct'13.



### Chart A32: Overseas CFTC spec positions

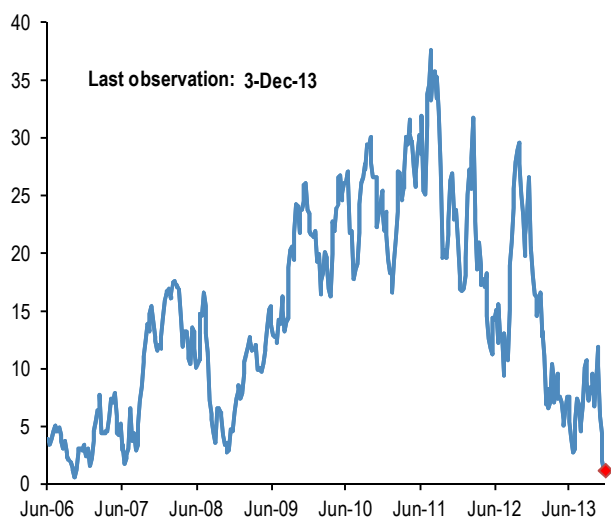
CFTC positions are in \$bn.



## Gold flows and positions

### Chart A33: Spec positions

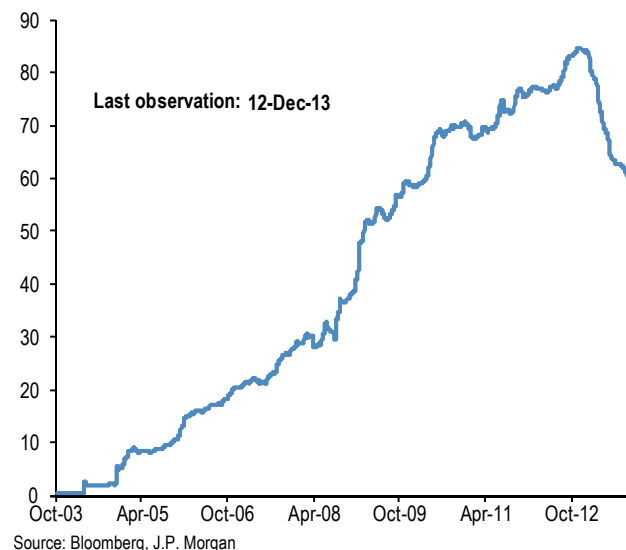
\$bn. CFTC net long minus short position in futures for the Managed Money Category.



Source: CFTC, Bloomberg, J.P. Morgan

### Chart A34: Gold ETFs

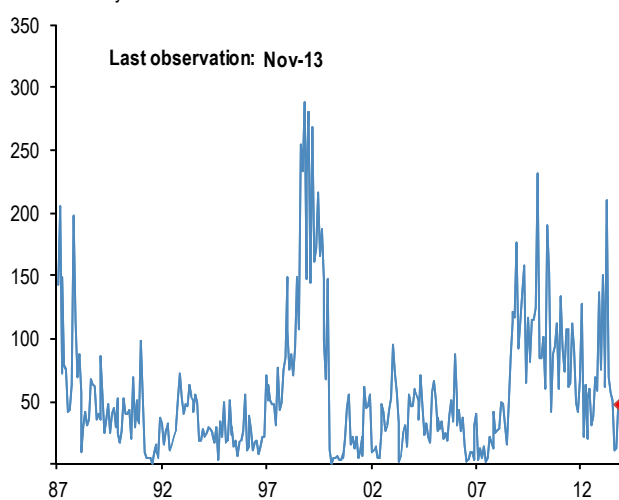
Mn troy oz. Physical gold held by all gold ETFs globally.



Source: Bloomberg, J.P. Morgan

### Chart A35: Gold coin sales

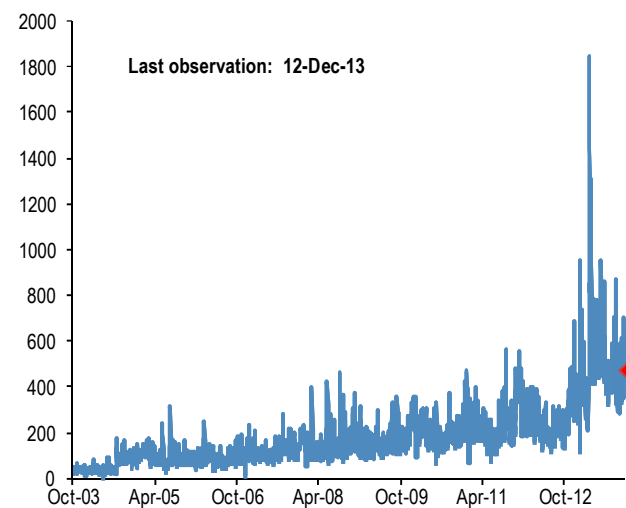
Thousand troy ounces



Source: US Mint, Bloomberg, J.P. Morgan

### Chart A36: Shanghai exchange gold volumes

Thousand troy ounces.



Source: Shanghai Gold Exchange, Bloomberg, J.P. Morgan.

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Global Asset Allocation  
Flows & Liquidity  
13 December 2013

J.P.Morgan

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