Flows & Liquidity

Extreme bond demand swings

- **This year's swing in bond demand has reached extreme levels across retail investors, commercial banks and reserve managers.**
- **Historical experience suggests that this extreme swing is at risk of reversing.**
- **This week witnessed spectacular equity ETF inflows.**
- **China flow indicators point to much improved GDP growth.**
- **No signs of recovery in EM corporate debt issuance yet.**
- **European repo markets rebounded in H1 driven by core markets.**

Global Asset Allocation

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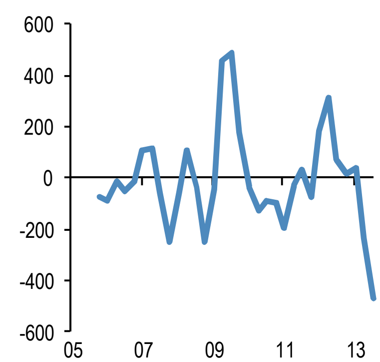
- The Fed's non-taper shocked bond investors this week. Expectations of tapering had previously created an **unexpectedly large swing in bond demand metrics,** which are now at risk of reversing. How big has that swing been?
- Bond fund buying by retail investors collapsed from $855bn in 2012 to $162bn YTD, representing a massive $700bn swing. There has been a big swing intra year as well. The difference the bond fund flows globally between the two middle quarters of the year, i.e. the sum of Q2 and Q3 vs. the previous two quarters (i.e. the sum of Q1 and Q4) was also large at $465bn, at least based on the bond funds that have reported so far. This swing, of rolling two quarters vs. the previous two quarters, is very extreme by historical standards as shown in Figure 1, raising the risk of a reversal in coming quarters. Figure 1 shows how unprecedented this swing is since our global bond fund data begin in 2005.
- We can go further back, to 1990, using US-domiciled bond funds only. Figure 2 also shows that when bond outflows reach extreme levels, as they did this past summer, a quick rebound followed afterwards. The only exception was the bond rout of 1994, when bond outflows were sustained for a year. But during that period, the Fed surprised markets by embarking on a sustained tightening cycle rather than the hesitant approach the Fed appears to be currently adopting.

Figure 1: Bond fund flow swings
Change in $bn of the sum of flows over rolling two quarters vs. previous two quarters

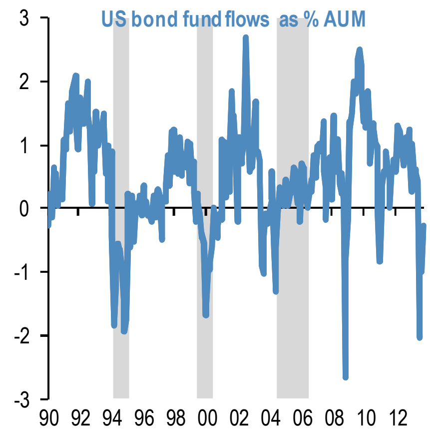


Source: ICI, EFAMA, Bloomberg

See page 16 for analyst certification and important disclosures.

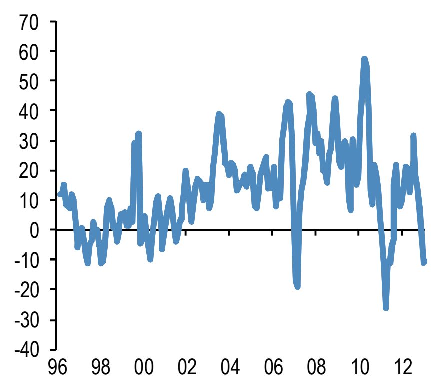
- One counterargument is that retail investors bought such a large amount of bond funds over the past five years that they will have to sell for years to come. As we argued before, it is not correct to assume that most of the $2.5tr that was invested into bond funds over the past five years will have to be unwound as tapering begins. First, of the $2.5tr that was invested into bond funds over the past five years, $1.6tr or 2/3rds is explained by money market fund outflows. And this savings motive is unlikely to go away as long as policy rates stay at zero. This means that a more material shift away from bond funds and into money funds is conditional on ending ZIRP and as such it is several years away. Second the $2.5tr that was invested into bond funds over the past five years have not made retail investors overweight bonds. If anything, the opposite is more likely to be true as we showed previously in *F&L,* Aug 9th.
- Is it not only bond demand by retail investors which experienced an extreme swing this year. **Institutional investors such as reserve managers also reduced their bond buying sharply this year vs. 2012**. This is revealed in high frequency data on Fed custody holdings. The face value of marketable U.S. government and federal agency bonds (ex. Tbills) held in custody by the Federal Reserve Banks for foreign official and international accounts is up by $47bn YTD vs. $187bn last year. In fact, reserve managers appear to have turned net sellers in the summer, partly due to the EM credit crunch that forced several central banks to sell reserves to defend their currencies. Figure 3 shows the 3-month average flow into UST and Agency bonds by official institutions. As with Figures 1 and 2, Figure 3 shows that this selling reached rather extreme levels in the summer, which in the past were quickly reversed.
- Japanese banks are important investors in core bond markets and their behavior this year exacerbated the bond selloff. Japanese banks were successful in riding the recent bear move by selling foreign bonds heavily in April, May and June. They started reversing this selling in July/early Aug, but turned sellers again after mid August. The YTD flow into foreign bonds remains in very negative territory. Figure 4 shows YTD selling of around $80bn of foreign bonds, which is rather exceptional. **There has never been a full year during which Japanese investors sold foreign bonds at least since 2005**. A mere normalization of this flow to the historical low levels of 2006/2007 would require buying of $120bn of foreign bonds by Japanese investors between now and year end.
- What about other commercial banks in the US, Euro area or the UK? The picture is similar. **The overall retrenchment of G4 commercial banks from bonds has also been acute**. This is shown in Figure 5. Again an extreme swing, at risk of reversing.
- In total, an update of bond demand by retail investors, G4 commercial banks and reserve managers shows a massive swing of $1.6tr this year vs. 2012, compared to an increase in bond purchases by G4 central banks of $900bn. So a shortfall of $700bn. Part of this shortfall was offset by reduced net bond supply (by around $200bn vs. last year). But the rest created acute selling pressure and a decline in prices to induce other bond investors, perhaps pension funds and insurance companies as well as SWFs to buy. Figure 6 shows that total bond demand declined to the lowest since 2008, at least based on the flows we can track.

Figure 2: US-domiciled bond fund flows
Monthly flow as % of AUM, includes both mutual funds and ETFs.



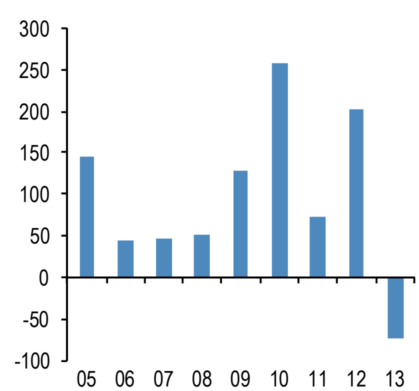
Source: ICI, Bloomberg

Figure 3: Foreign official sector flows into UST and Agency bonds
3-month moving average in $bn



Source: Fed custody holdings data

Figure 4: Foreign bond buying by Japanese investors
$bn per annum

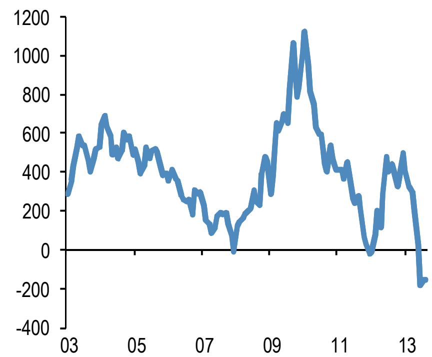


Source: MoF

China flow indicators point to much improved GDP growth

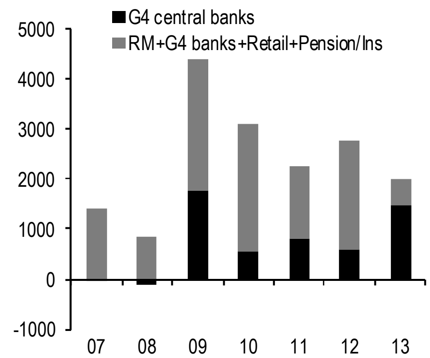
- We have often analyzed flow indicators in *Flows & Liquidity* in order to gauge the health of the Chinese economy. This week we combine six of the most important of these into a single aggregate indicator of the Chinese economy. We choose the flow indicators to include based on measures favored by our economics and commodity research teams. We include cement, steel and auto production as well as rail freight volumes because our commodity researchers use these indicators to help track the underlying physical demand for industrial commodities from China (see *Metals Weekly: China construction indicators signal improving tone for metals demand*, Kaneva et al., Aug 16). We also include new loan creation and housing starts as our China economics team follows these closely in their research (see Haibin Zhu's research).
- There is significant seasonality in Chinese data due in part to the lunar new year, which occurs at a different point in the first quarter of each year. This makes it difficult to apply typical seasonal adjustment methods to the data. For this reason we take year-over-year changes in calendar quarter averages for each variable. However, the magnitude of changes between the different variables is very large. For example the YoY change in the calendar quarter average for new loan creation ranges from -45% to 426% while for rail freight volumes, the range is only from -5% to 16%. This makes combining the different flow measures in this form difficult as the more volatile components would dominate the series. To solve this, we calculate a z-score for each component. We do this by taking each observation and subtracting the average over the preceding 12 quarters and then dividing by the standard deviation over the same preceding 12 quarters. To combine the variables into one aggregate indicator we then take an average of all the individual z-scores.
- The result of this exercise is shown in Figure 7. The indicator has a decent correlation with YoY Chinese real GDP growth but the flow data we use is timelier than GDP and so we can get an indication of where the next actual GDP number will print. Currently, the flow indicator points to a decent rise in Chinese GDP growth for Q3. This is driven by higher rail freight volumes, steel output and new loan creation, which offsets slightly weaker cement and auto production as well as a fall in housing starts.
- **How successful has this indicator been in predicting the direction of Chinese GDP?** To answer this we compare the direction the indicator moves in each quarter to the direction of Chinese GDP in the same quarter, i.e. when the indicator moves higher in a given quarter, does YoY Chinese real GDP also move higher in that quarter. We have data since Q1 2009, and over these 18 quarters, the indicator successfully predicted the direction of the change in Chinese GDP, in 12 out of these 18 quarters, or 67% of the time. The indicator also correctly predicts the direction of the change in GDP over the following quarter 58% of the time. Given the change in Q3 so far is positive**, this suggests that both Q3 and Q4 will see an increase in Chinese real GDP.** One caveat here is that we only have flow data up until August for Q3, so the prediction will change once we receive September data.
- **What about the magnitude of the change?** Here the indicator appears to be less accurate. A regression of quarterly changes in the indicator on quarterly changes in Chinese YoY real GDP is shown in Figure 8. It suggests an increase of 0.3% on the Q2 GDP number, so a modest rise to 7.8% in Q3. The indicator is significant, with a t-stat of 2.7, but, the R-squared is only 32%.
- **Overall, the flow indicator appears to be a decent indicator of the**

Figure 5: G4 commercial banks- buying of bonds
12-month sum in $bn



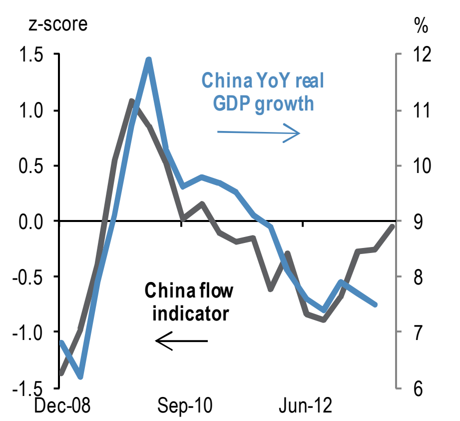
Source: Fed, ECB, BoE, BoJ

Figure 6: Bond demand
$bn per annum. RM stands for Reserve Managers.



Source: J.P. Morgan

Figure 7: China flow indicator
The flow indicator includes: Rail freight volumes, cement production, steel production, auto production, housing starts and CNY new loan creation. It is constructed by taking YoY changes in calendar quarter monthly averages for each variable. Z-scores are then calculated for each of these variables by taking the current observation, subtracting the average over the previous 12 months and dividing by the standard deviation over the previous 12 months. The aggregate indicator is constructed by taking an average of these z-scores.



Source: Bloomberg, J.P. Morgan

direction of Chinese GDP but is less useful in determining the magnitude of the move. It is encouraging however that the indicator is suggesting a sharply positive move for Q3.

No signs of recovery in EM corporate debt issuance yet

- In this section we focus on EM non-financial corporate debt net issuance and analyze broader credit growth in EM. This week's corporate debt issuance data from the BIS showed that non-financial corporate debt issuance in EM countries was very strong in Q1, ahead of Q2's credit crunch (see Figure 8). How has issuance been affected by the EM bond market rout of Q2?
- To answer this question we resort to higher frequency Dealogic data with the caveat that these data are not as comprehensive as those of the BIS. Figure 9 shows that **EM non financial corporate bond issuance collapsed in Q2 across regions with no signs of a recovery yet**. Combining Figures 9 and 10 we conclude that EM corporate issuance is now tracking a more normal pace similar to 2006/2007, well below the average pace during the boom years of 2009-2012.
- What about loan growth? This is shown in Figure 10. The picture is somewhat different in that loan growth has been on a declining trend since its 22% oya peak in 2007. While the strong corporate bond issuance of the 2009-2012 might be a cause, as debt capital markets crowded out traditional bank lending, we believe that the picture of Figure 10 also reflects a weakening trend for household credit as well.
- Loan growth over last ten years has been on average notably higher in large Current Account Deficit (CAD) economies such as India, Indonesia and Turkey (above 20%).This leaves them vulnerable to weakening credit growth.
- Loan growth has also declined in China over the past three years. However, the broad measure for credit in China, the so-called total social financing rose from 126% of GDP at year-end 2007 to 198.5% of GDP in 2Q13. This is a result of an increase in shadow financing. Corporate debt in China reached 124% of GDP in 2012.

Strong equity ETF inflows continued this week

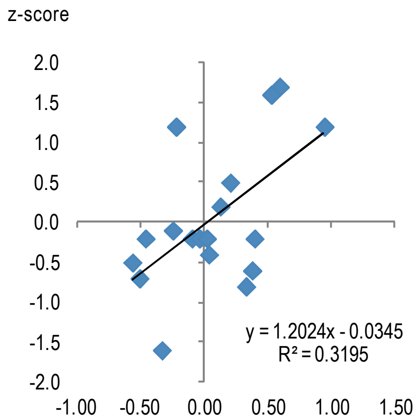
- Week-to-date, US equity ETFs saw a $19.4bn inflow, which is the largest weekly inflow since the Lehman crisis. On the day of Fed's decision (i.e. Wed), we saw the highest ever daily inflow of $8.1bn into US equity ETFs.
- Equities on a whole saw inflows of $23.1bn WTD and $34.5bn MTD. Western Europe equities also saw inflows week-to-date. As we pointed out last week in *F&L*, Western European equity ETFs are gaining in popularity, with another inflow of $1.3bn (1.1% of AUM) this week, which is highest weekly inflow since September last year.

European repo markets rebound in H1 driven by core markets

- The latest ICMA repo survey showed that the European repo market recovered in the first half of the year, rising to €3tr, the highest level since the end of 2011. The ECB's 3y LTROs had anecdotally played a big role in crowding out private repo market during 2012 and as a big chuck of these LTROS was repaid this year, private repo market recovered. In fact all of the decline that took place during 2012 appears to have been reversed in H1.
- The details of the ICMA repo survey reveal that most of the increase in European repo market activity in H1 was driven by repos with core (French

Figure 8: China flow indicator regression on Chinese GDP

Y-axis is the quarterly change in YoY Chinese real GDP. X-axis is the quarterly change in the flow indicator described in the text and shown in the chart above.



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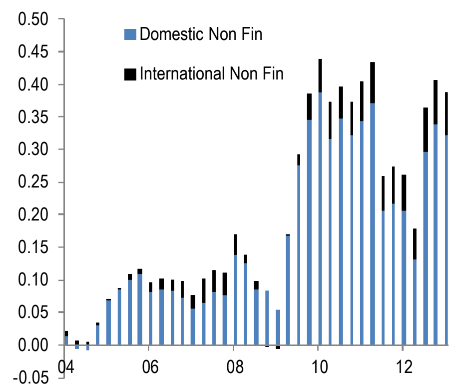
Source: Bloomberg, J.P. Morgan

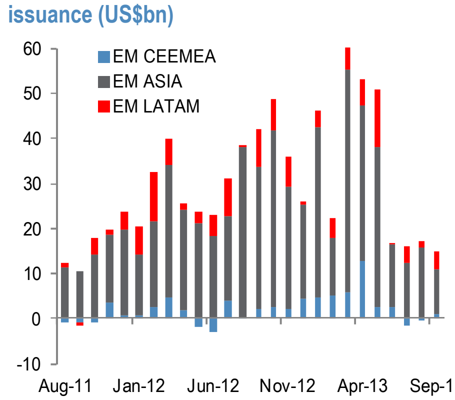
Figure 9: EM non- financial corporate debt net issuance

Left axis shows net corporate debt issuance in $tr, sum of 4 quarters.



Source: BIS, 1Q'13

Figure 10: EM non-financial corporate debt net issuance (US$bn)

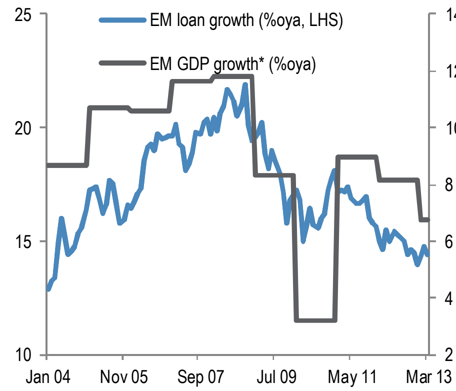


Source: Dealogic, Monthly data except for september (upto 19th September 2013) and German collateral) rather than peripheral collateral (Figure 11). This suggests that most of the collateral that was released as a result of 3y LTRO repayments was core rather than peripheral. This is consistent with core banks repaying most of the 3y LTRO borrowing in Q1.

- The repo market sizes with Spanish or Italian collateral were rather flattish in H1. While the flatness of the Italian repo markets is not surprise, this is not the case for the Spanish repo market. It is surprising that the Spanish repo market did not increase in H1 as we believe that a significant amount of Spanish paper was released in private repo markets as a result of the 3y LTRO repayments by Spanish banks.
- There has been recently some talk of a retrenchment of the Italian repo market as a result of the change in position limits for the Italian Repo Market. In order to reduce risks arising from Italian collateral; LCH in conjunction with Cassa di Compensazione e Garanzia, two central counterparties with very large share in the Italian repo market, lowered the thresholds above which larger haircuts are applied. The new thresholds, effective after May 31st, were applied to each firm, member or account.
- As a result of these changes, Central Counterparty (CCP) activity appears to have declined for the Italian repo market. Indeed, ECB data on central counterparties show that the size of the CCP market with Italian collateral fell by €10bn in June/July to €130bn. But we believe that this decline has been offset by an increase in bilateral repos. Unfortunately we need to wait for the next ICMA repo survey to see how the overall size of the Italian repo market including both CCP and bilateral repos has been affected.

Figure 11: EM loan growth and nominal GDP (%oya)

Left axis shows net corporate debt issuance in $tr, sum of 4 quarters. Last observation is Q1'13.



Source: IMF, J.P. Morgan economics, Bloomberg, 1Q13. EM countries include China, EM ASEAN, Korea, Taiwan, India, SA, Turkey, Brazil and Mexico. Loan growth at EM level is calculated as the weighted average loan growth of countries based on Nominal GDP. *EM nominal GDP is based on purchasing power parity (PPP) FX rates according to the IMF's methodology.

Figure 11: European repo market sizes

Left axis shows net corporate debt issuance in $tr, sum of 4 quarters. Last observation is Q1'13.

Repo markets size €bn	size as of end-Jun	change in H1 13	change since Dec 09
French	355	44	105
German (all collateral)	665	48	-98
German (govt collateral)	504	36	-97
UK	365	-34	8
Spanish	140	2	19
Italian	249	5	-65

Source: ICMA repo surveys

Table A1: Weekly flow monitor

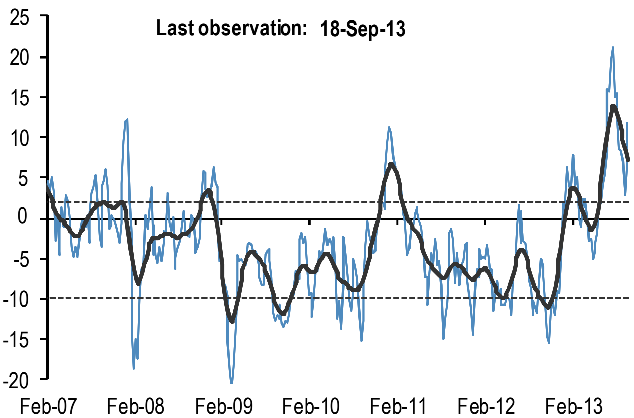
$bn, Includes US domiciled Mutual Fund flows from ICI with a one week lag and globally domiciled ETF flows from Bloomberg. Current week data only includes ETF flows.

MF & ETF Flows	18-Sep	4 wk avg	13 wk avg	2013 avg
All Equity	22.2	6.8	5.9	5.8
All Bond	0.5	-4.9	-7.0	-0.1
US Equity	17.0	3.8	2.6	2.7
Intl. Equity	5.2	3.3	3.4	3.3
Taxable Bonds	0.7	-2.9	-4.3	0.8
Municipal Bonds	-0.1	-2.0	-2.7	-0.9

Source: Bloomberg, ICI, J.P. Morgan

Chart A1: Fund flow indicator

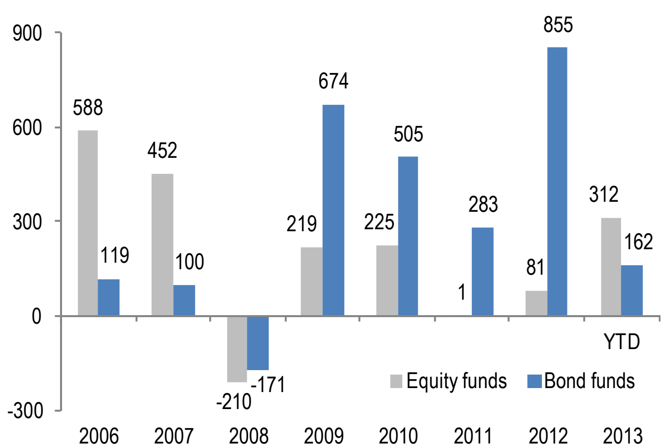
Difference between flows into Equity and Bond funds: $bn per week. Flow includes US domiciled Mutual Fund and globally domiciled ETF flows. Current week data only includes ETF flows. The thin blue line shows the 4-week average of this difference. The thick black line shows a smoothed version of the same 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 Q1'13 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	20-Sep	4 wk avg	13 wk avg	y/y chng
Global IPOs	2.4	2.9	3.1	46%
Secondary Offerings	5.7	9.9	9.0	41%
Gross corporate bond issuance				
United States	15.6	27.9	25.2	-14%
Western Europe (€bn)	14.7	18.2	12.9	-27%
Japan	1.4	6.1	3.5	-8%
EM	6.1	14.5	12.5	-38%
Corporate announcements				
M&A - Global	13.6	61.1	47.1	5%
- US Target	6.9	45.0	25.1	42%
- Non-US Target	6.7	16.1	21.9	-19%
US buybacks	0.0	0.2	3.7	-25%
Non-US buybacks	0.0	0.2	1.0	-19%

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 same3m average period last year.

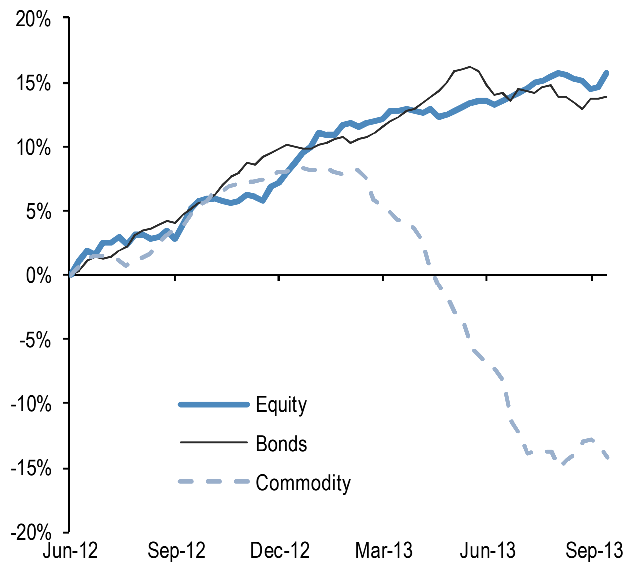
Equities	MIN	MAX	Aug-2013 (tr)	y/y chng
EM Equity			$1.29	40%
DM Equity			$2.91	12%
Govt Bonds				
USTs			$2.37	-1%
JGBs			¥805	7%
Bunds			€1.81	-9%
Credit				
US HG			$0.21	-8%
US HY			$0.08	-12%
US Convertibles			$0.02	-21%
Commodities				
Gold			$0.48	1%
Oil			$2.28	-26%
Copper			$0.56	18%

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

ETF Flow Monitor (data as of Sep 18)

Chart A3: Global Cross Asset ETF Flows

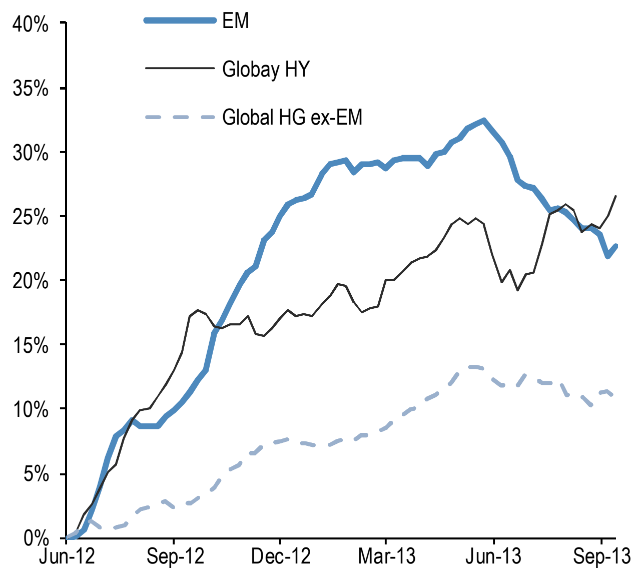
Cumulative flow into ETFs as a % of AUM.



Source: J.P. Morgan. Bloomberg

Chart A4: Bond ETF Flows

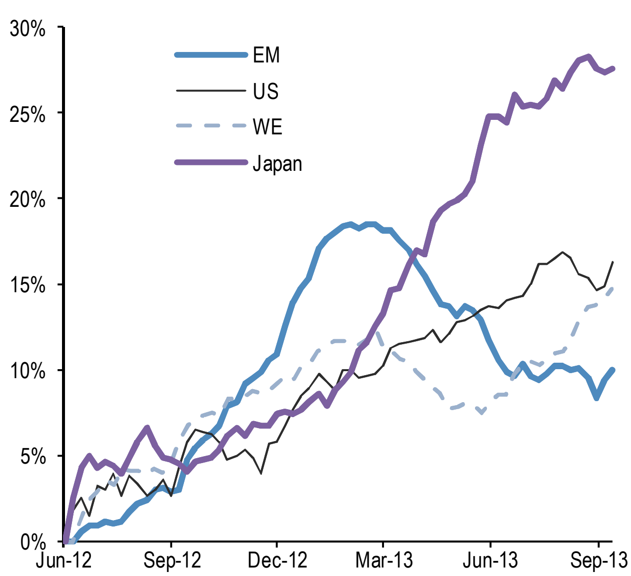
Cumulative flow into bond ETFs as a % of AUM.



Source: J.P. Morgan. Bloomberg

Chart A5: Global Equity ETF Flows

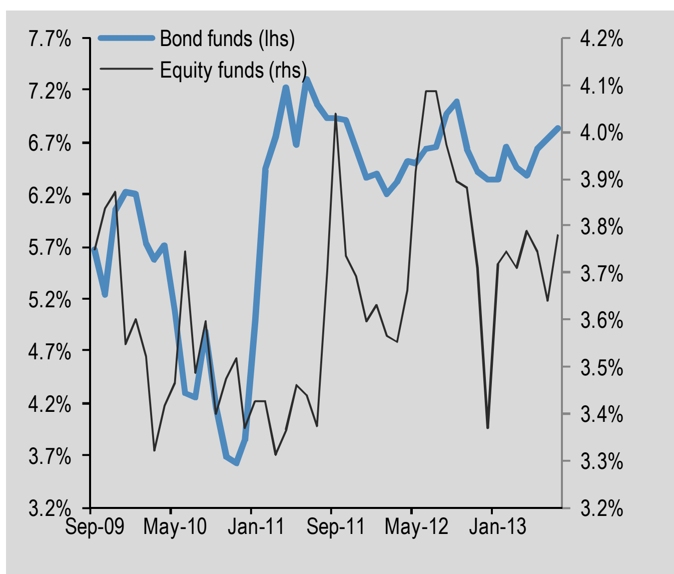
Cumulative flow into global equity ETFs as a % of AUM.



Source: J.P. Morgan. Bloomberg

Chart A6: Mutual Fund Cash Positions

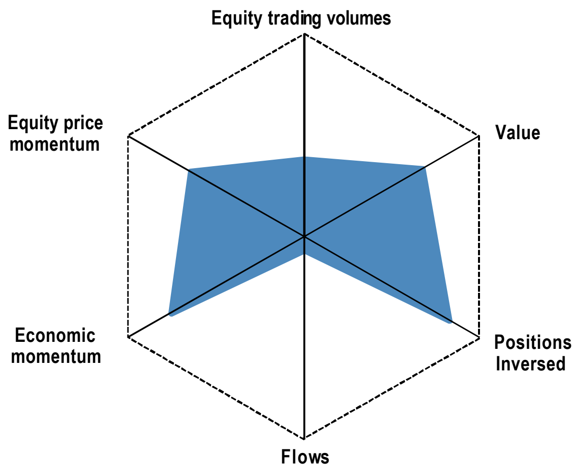
Sum of US and Euro area domiciled mutual funds. Aggregate cash balances in USD at constant exchange rates as a proportion of total assets. As of Jul 2013.



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).

Positions: Difference between net spec positions on risky & safe haven assets. See Chart A11.

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

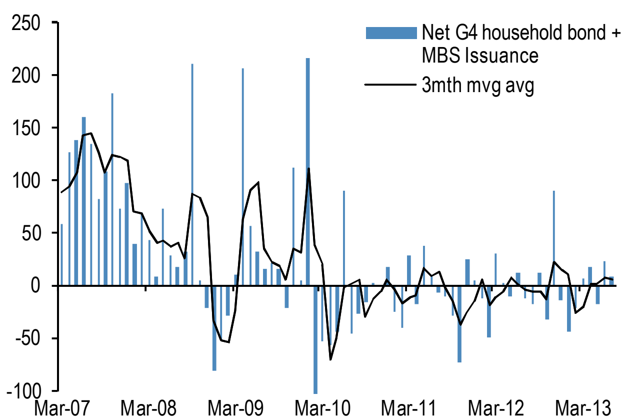
Economic momentum: The 2-month change in the global manufacturing PMI. (See REVISITING: Using the Global PMI as trading signal, Nikolaos Panigirtzoglou, Jan 2012).

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

Credit growth

Chart A8: G4 bank lending to households

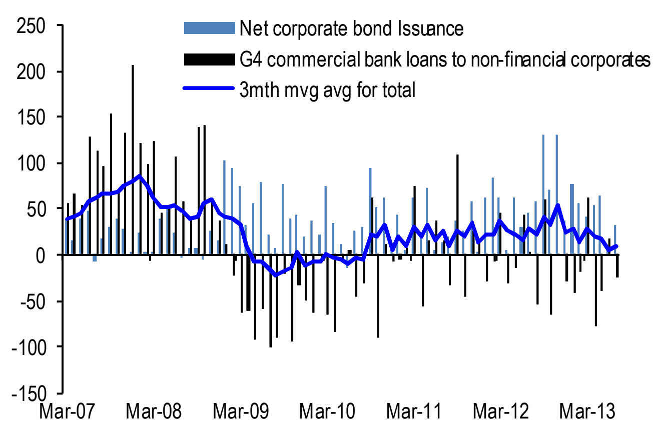
Quarterly changes in outstanding commercial bank loans to households, adjusted for changes in exchange rates and MBS net issuance. As of Jul 2013.



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

Chart A9: G4 non-financial corporate debt issuance

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 Jul 2013.

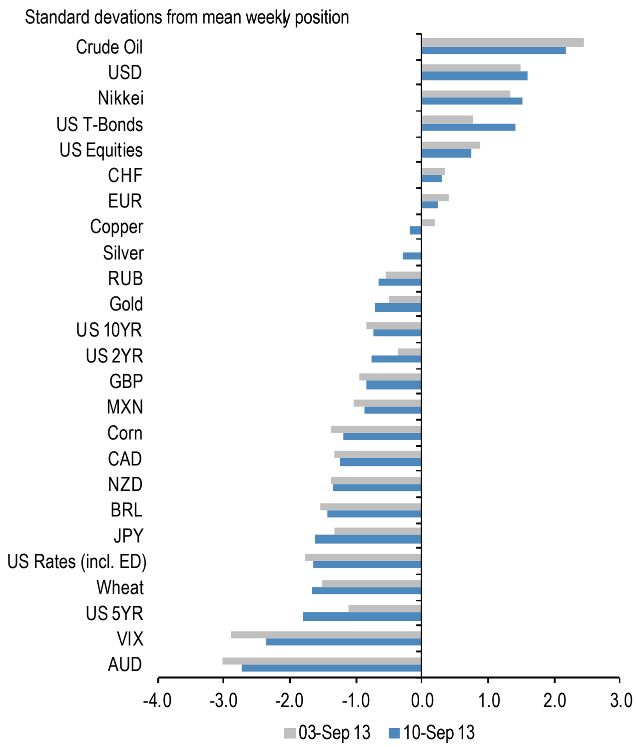


Source: ECB, BoJ, BoE, Federal Reserve, Bloomberg, Dealogic, J.P. Morgan

Spec position monitors

Chart A10: Weekly Spec Position Monitor

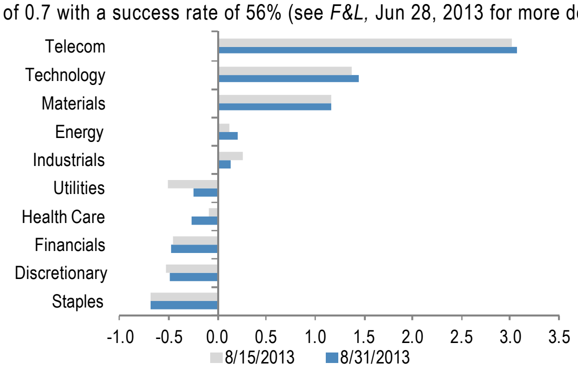
Net spec positions are the number of long contracts minus the number of short using CFTC futures only data. This net position is then converted to a USD amount by multiplying by the contract size and then the corresponding futures price. To proxy for speculative investors, commodity positions use the 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 A12: 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)

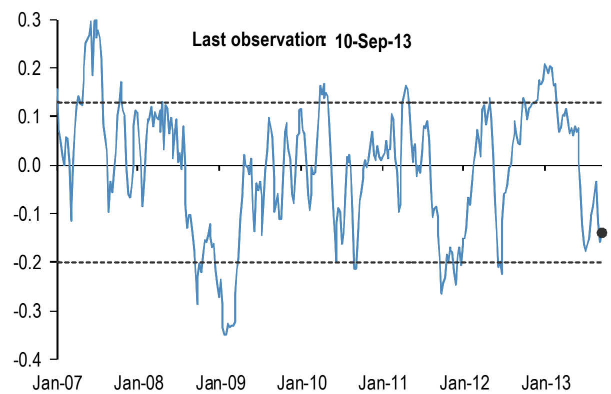


Source: NYSE, J.P. Morgan

Chart A11: Spec position indicator

Difference between net spec positions on risky & safe haven assets

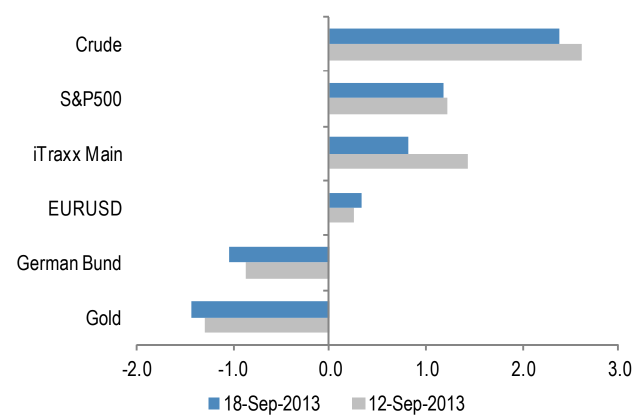
Net spec position is calculated in USD across 7 "risky" and 7 "safe" assets. These positions are then scaled by open interest and we take an average of "risky" and "safe" assets to create two series. The chart is then simply the difference between the "risky" and "safe" series. The final series shown 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 A13: 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 below shows a z-score of the skew, i.e. the skew minus a rolling two-year average 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.

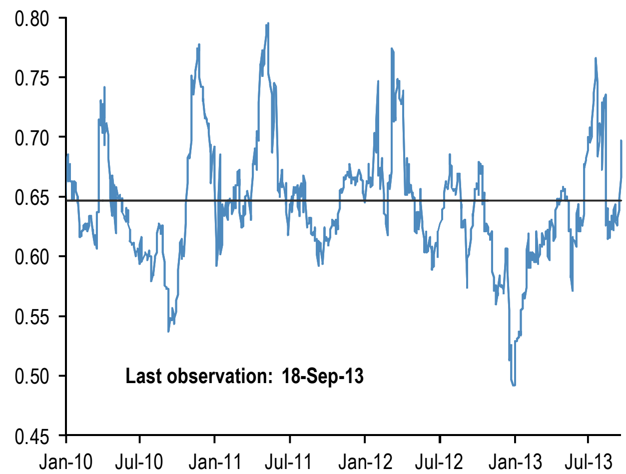


Source: Bloomberg, J.P. Morgan

Mutual fund and hedge fund betas

Chart A14: Balanced fund equity exposure

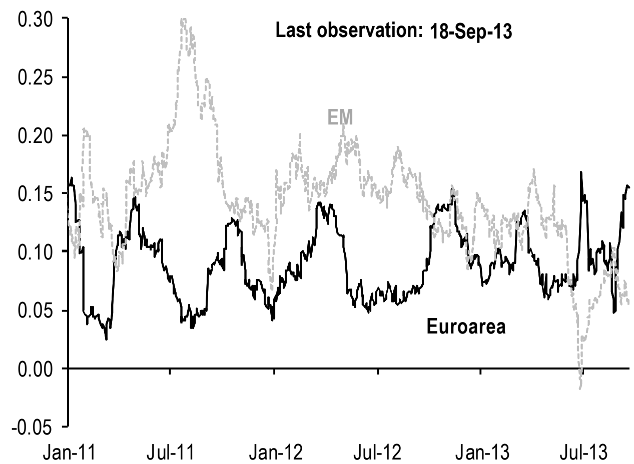
Rolling 21-day beta of balanced MF returns to returns on the S&P500. Balanced funds are top 20 US based funds by assets that have existed since 2006. It excludes tracker funds and funds with a low tracking error. The thin black line is the average during expansion since 2006.



Source: Bloomberg J.P. Morgan

Chart A15: 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.

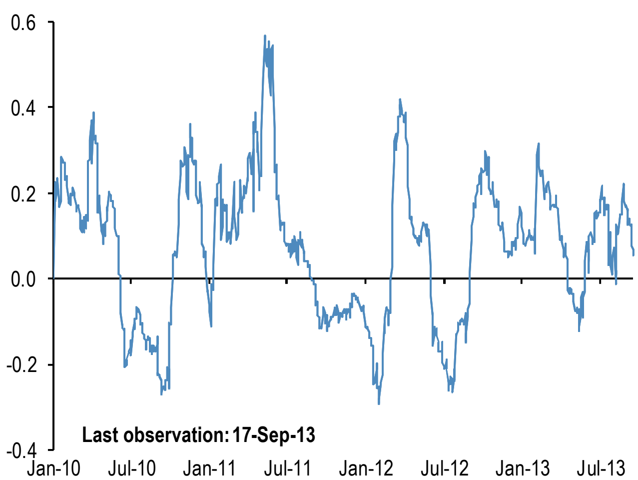


Source: Bloomberg J.P. Morgan

Chart A16: Macro hedge fund monitor

Macro hedge fund equity exposure

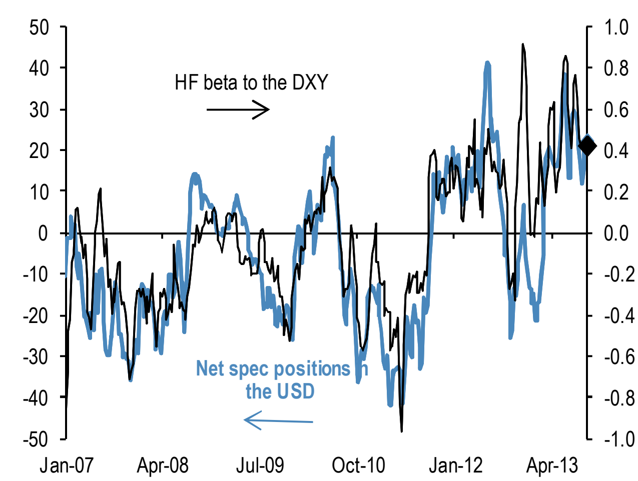
Rolling 21-day beta of macro fund returns to returns on the S&P500. The beta represents the average exposure of macro hedge funds to equities over the previous 21-days.



Source: Datastream, Bloomberg, J.P. Morgan

Chart A17: 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 Sep 10, 2013.



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

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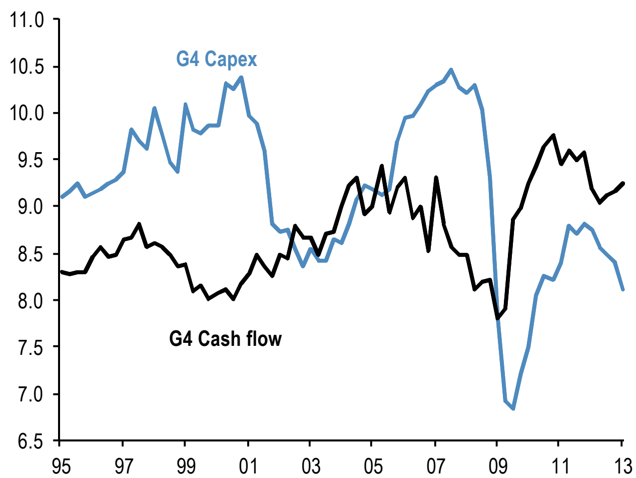
Corporate activity

Chart A18: G4 non-financial corporate capex and cash flow as % of GDP

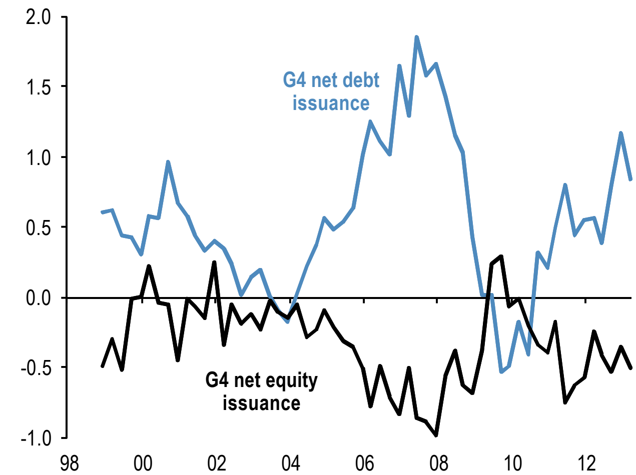
% of GDP, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q1 2013.



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

Chart A19: G4 non-financial corporate sector net debt and equity issuance

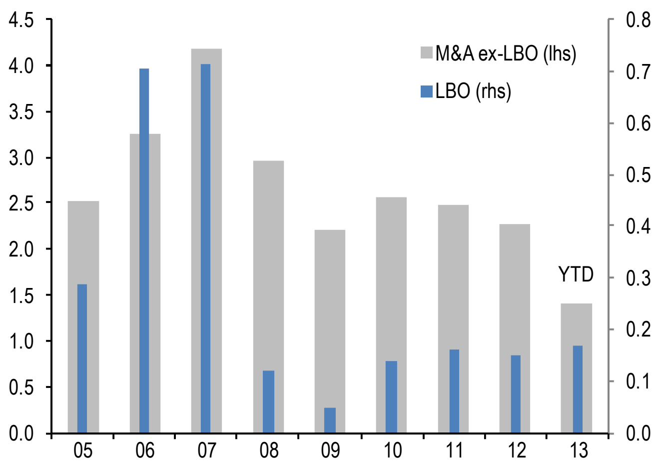
$tr per quarter, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q1 2013.



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

Chart A20: Global M&A and LBO

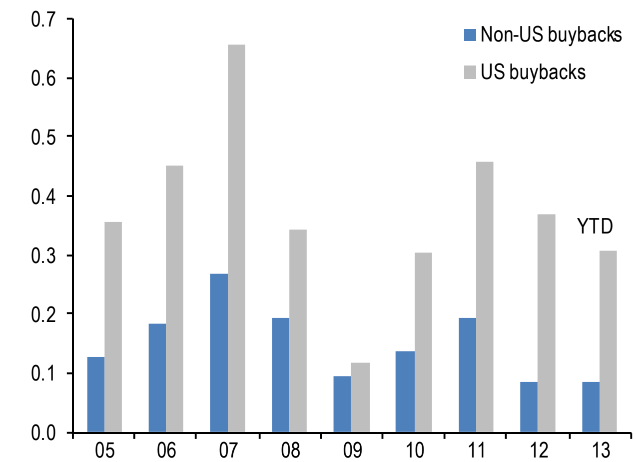
$tr. YTD 2013 as of Sep 19, 2013. M&A and LBO's are announced.



Source: Reuters Thomson One, J.P. Morgan

Chart A21: US and non-US share buybacks

$tr, YTD 2013 as of Sep 19, 2013. Buybacks are announced.

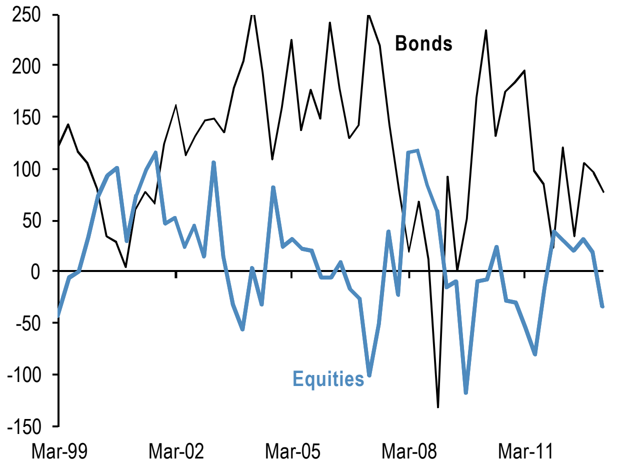


Source: Reuters Thompson One, J.P. Morgan

Pension fund and insurance company flows

Chart A22: G4 pension funds and insurance companies equity and bond flows

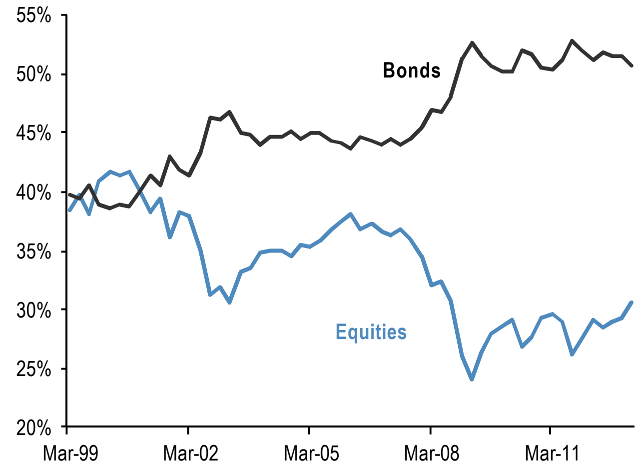
Equity and bond buying in $bn per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q1 2013



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

Chart A23: G4 pension funds and insurance companies equity and bond levels

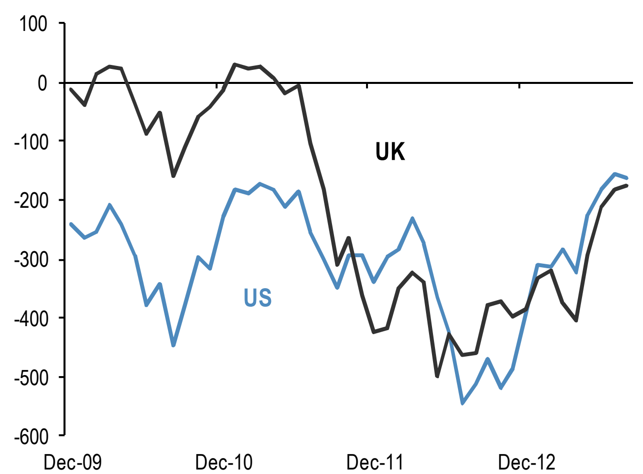
Equity and bond as % of total assets per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q1 2013.



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

Chart A24: Pension fund deficits

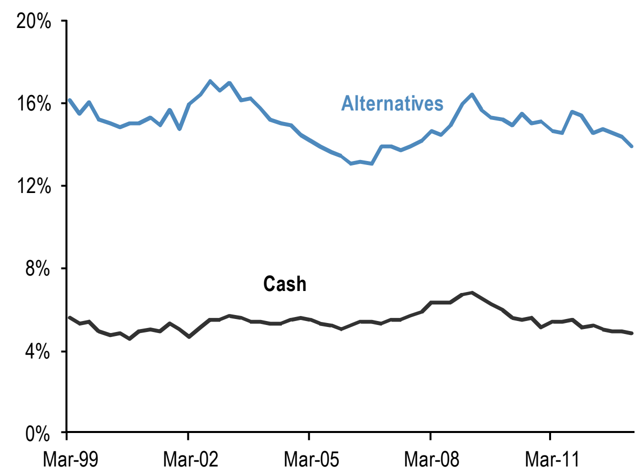
US$bn. For US, funded status of the 100 largest corporate defined benefit pension plans, from Milliman. For UK, funded status of the defined benefit schemes eligible for entry to the Pension Protection Fund, converted to US$ at current exchange rates. Last observation is Aug 2013.



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

Chart A25: 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 Q1 2013.



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

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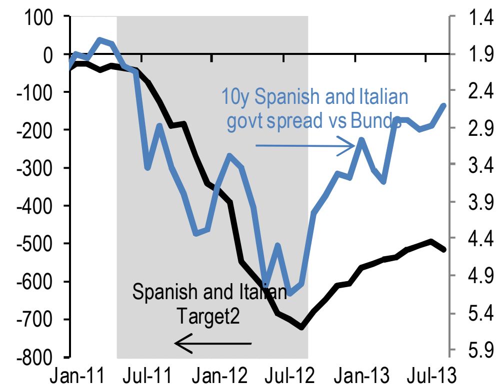
European Funding market monitor

Table A4: Bank deposits and ECB reliance

Deposits are non-seasonally adjusted Euro area non-bank, non-government deposits as of Jul 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	-40	0	6	-0.3%	1.2%
Belgium	-15	2	14	1.3%	6.3%
Cyprus	-7	0	0	-9.8%	-24.4%
Finland	27	-17	3	1.2%	0.1%
France	-56	30	89	0.8%	4.3%
Germany	574	-39	12	0.3%	0.7%
Greece	-54	24	62	-0.1%	6.4%
Ireland	-75	13	43	-2.5%	2.6%
Italy	-234	23	242	-0.7%	6.7%
Luxembourg	101	1	3	2.4%	4.3%
Netherlands	62	-63	15	-0.2%	1.1%
Portugal	-64	-1	52	1.6%	-1.6%
Spain	-282	16	249	1.4%	7.1%

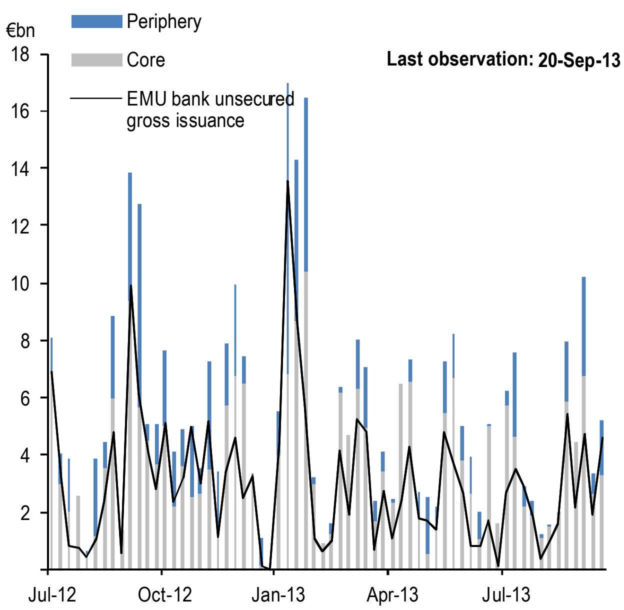
Source: Bloomberg, ECB, National Central Banks, J.P. Morgan



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

Chart A26: Euro area gross bank debt issuance

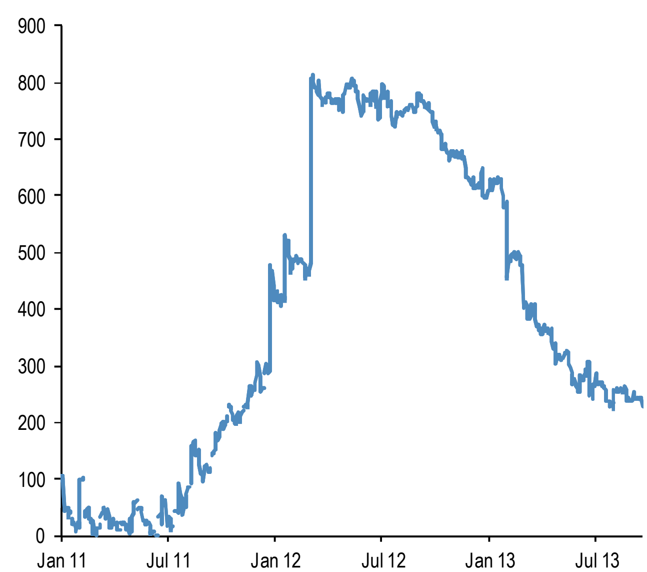
Includes secured, unsecured and securitized issuance in any currency. Excludes short-term debt (maturity less than 1-year) and self funded issuance (where the issuing bank is the only book runner).



Source: Dealogic, J.P. Morgan

Chart A27: 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 Sep 12, 2013.



Source: ECB, J.P. Morgan

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Japanese flows and positions

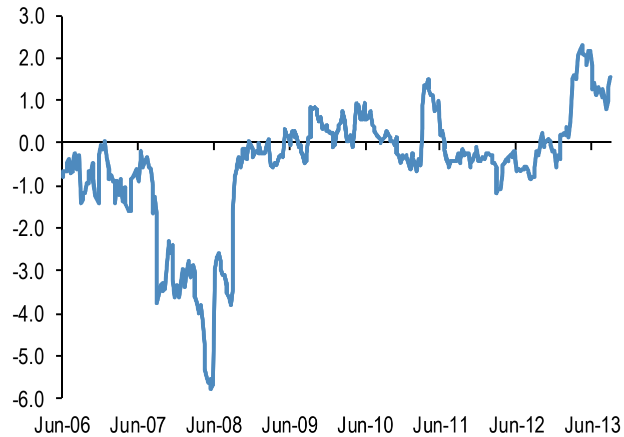
Chart A28: Tokyo Stock Exchange Margin trading: total buys minus total sells

in mn of shares. Last observation is Sep 13, 2013

Source: Tokyo Stock Exchange, J.P. Morgan

Chart A29: Spec positions on Nikkei

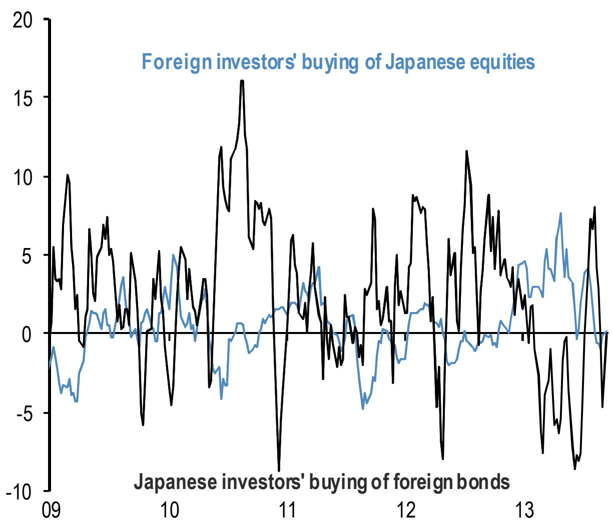
$bn. Last observation is Sep 10, 2013



Source: CFTC, J.P. Morgan

Chart A30: Japanese equity buying by foreign investors. Japanese investors' buying of foreign bonds

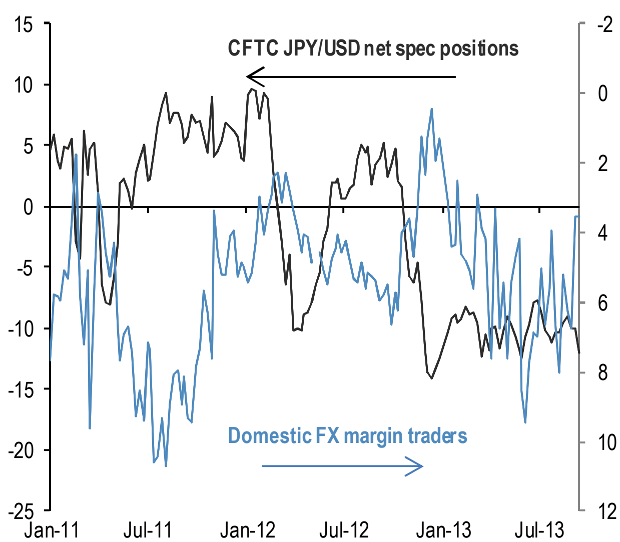
$bn, 4 week moving average. Last observation is Sep 13, 2013



Source: Japan MoF, J.P. Morgan

Chart A31: JPY positions

CFTC positions are in $bn, FX margin trader positions are in JPY tr. FX margin trader positions are in reverse order and the net short position. A higher number means a larger short and vice versa. Last observation is Sep 11, 2013



Source: Bloomberg, MoF, CFTC, Nikkei Veritas, J.P. Morgan.

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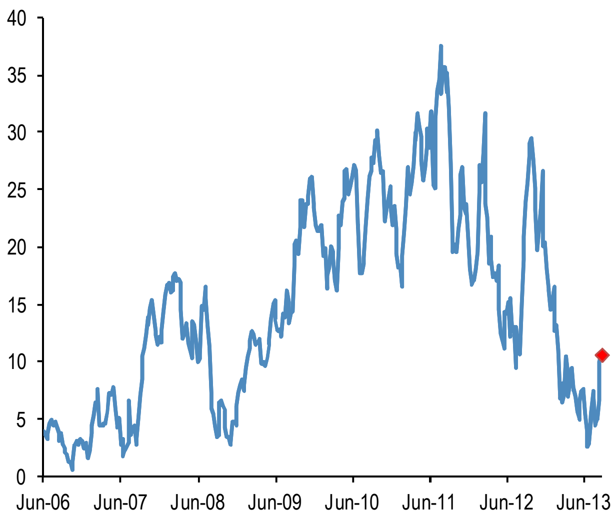
Gold flows and positions

Chart A32: Spec positions

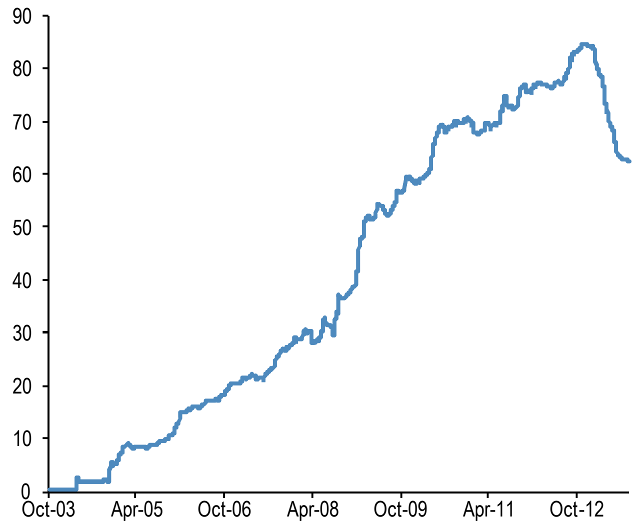
$bn. CFTC net long minus short position in futures for the Managed Money Category. Last observation is Sep 10, 2013



Source: CFTC, Bloomberg, J.P. Morgan

Chart A33: Gold ETFs

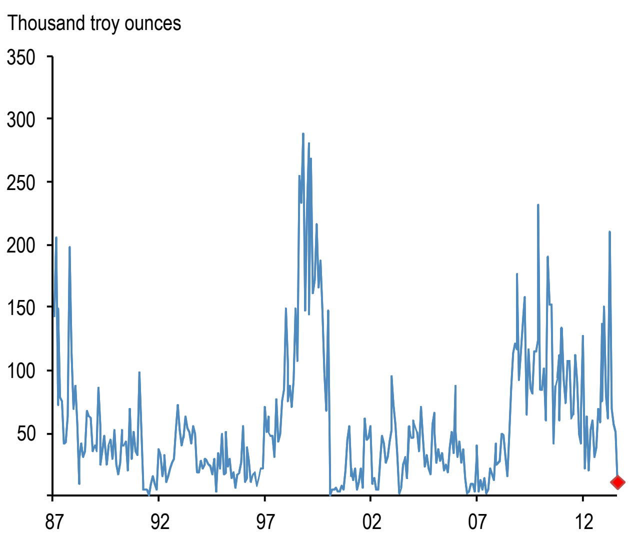
Mn troy oz. Physical gold held by all gold ETFs globally. Last observation is Sep 19, 2013.



Source: Bloomberg, J.P. Morgan

Chart A34: Gold coin sales

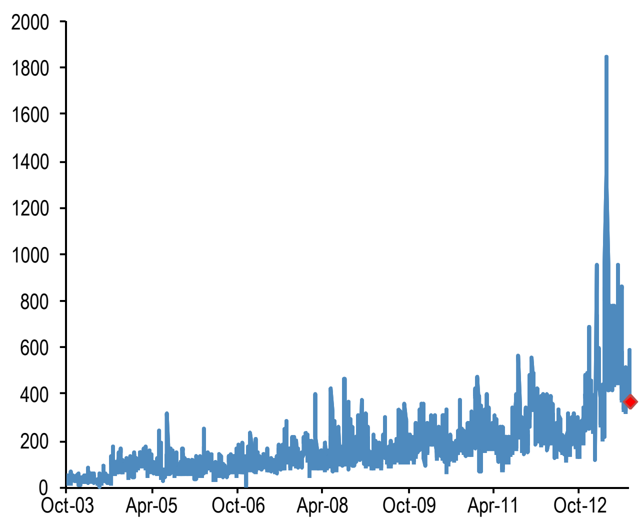
Last observation is Aug 2013



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

Chart A35: Shanghai exchange gold volumes

Thousand troy ounces. Last observation is Sep 19, 2013



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

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