

MONTHLY

Hedge Fund Watch

Risk of a significant short squeeze in US Treasury positions



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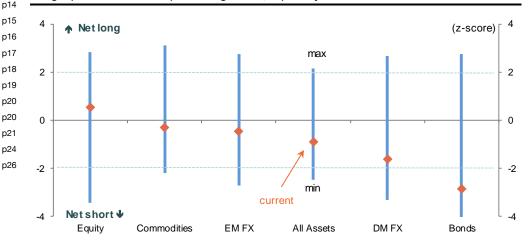
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Hedge fund positions, either long or short, tend to reveal valuable insights into financial market trends. We track their behaviour in terms of asset classes, performance and favourite strategies.

- New: aggregate positioning charts Comparing net positions across asset classes has never been easier. In the chart below, the aggregate position on each asset class is shown within its historical range. The "All Assets" category combines these aggregates into a single data point. Currently, this equally weighted average indicates a clear short position.
- Long equities but cautious positioning overall This is the result of a moderate long position in equities (supporting an extension of what is now the longest bull run in the S&P in history) but net short positions in all other asset classes, especially within rates. In this report, we include similar charts for each of the five asset classes, providing positioning details on each of the constituents, as well as charts that show the 4w momentum and long-term historical trend.
- Historical short positions on several US Treasuries Once more, the bond aggregate is pushed down by new record short positions on 5y, 10y and ultra (more than 25y) US Treasury notes. Even if asset managers are natural holders of US Treasuries, current positioning suggests strong anticipation of higher US bond yields. However, as yields have not increased much (on the contrary, the yield curve has flattened further), we highlight that the main short-term risk is probably an equally significant short squeeze in US Treasury positions.

Long equities but cautious positioning overall, especially on US Treasuries



Marker: current net positions long (+) or short (-). Bar: historical range (min-max). Standard deviations around historical average (z-score).

Hedge fund positions by asset class - "hedge funds positions" refer to all non-commercial positions reported to the CFTC. Data as of 14 August 2018, released 17 August 2018.

Hedge fund strategies - based on funds reporting to EUREKAHEDGE. Latest data for end June-2018, collected up to 12 July, representing 42.36% of its universe.

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Hedge fund convictions - All asset classes (1)

Composition of our net position aggregates by asset class:

(See Addendum for full disclosures)

Equity

S&P, Nasdaq, Russell, Nikkei (not MSCI EM or VIX)

Bonds (US Treasuries) 2y, 5y, 10y, 15-25y, Ultra T-bonds (>25y)

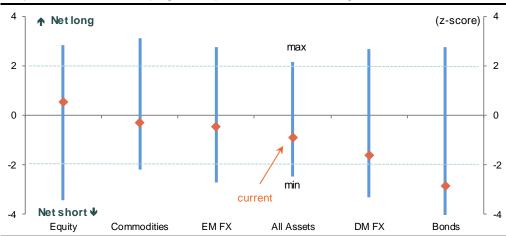
Developed Market FX (vs USD) EUR, GBP, CHF, JPY, CAD, AUD, NZD

Emerging Market FX (vs USD) BRL, MXN, RUB

Commodities

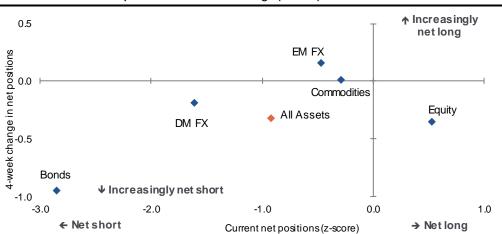
Oil (WTI), natural gas, Gold, silver, platinum, copper, Corn, soybean, wheat, sugar

Net positions: current levels (long or short) within their historical range



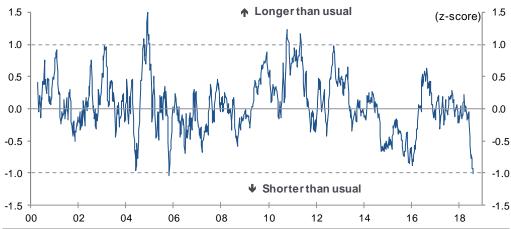
Marker: current net positions long (+) or short (-). Bar: historical range (min-max). Standard deviations around historical average (z-score)

Momentum: current net positions versus 4 weeks ago (vertical)



Horizontal: current net positions long (+) or short (-). Vertical: momentum = change in net positions versus 4 weeks ago. Both in z-score

History of net positions - All asset classes combined

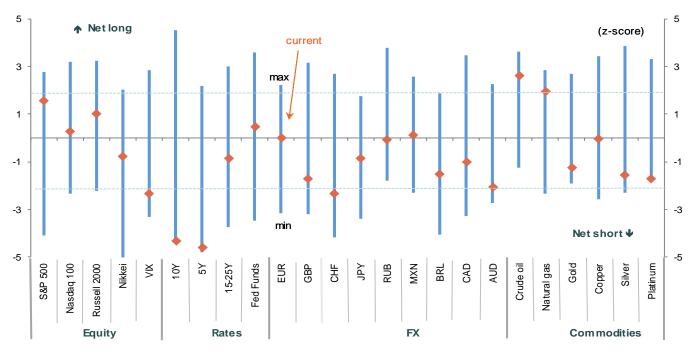


Normalised net positions on All Assets: Equity, Bonds, EM FX, DM FX and Commodities. Dotted lines: 5y z-score of 2 and -2



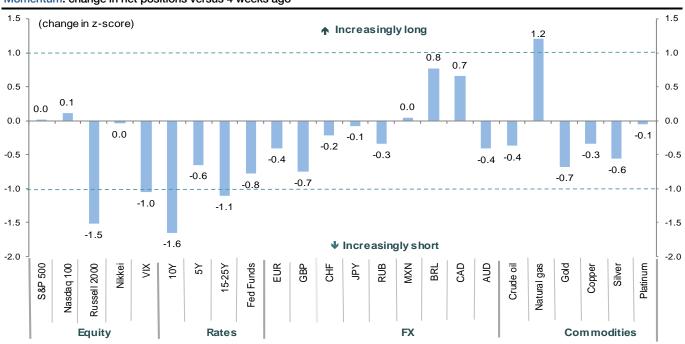
Hedge fund convictions - All asset classes (2)

Net positions: current levels (long or short) within their historical range



Marker: current net positions long (+) or short (-). Bar: historical range (min-max). Standard deviations around historical average (z-score)

Momentum: change in net positions versus 4 weeks ago

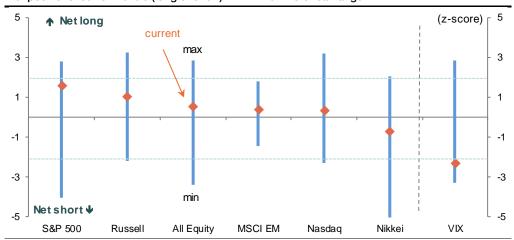


Momentum = change in normalized net positions (z-score) versus 4 weeks ago



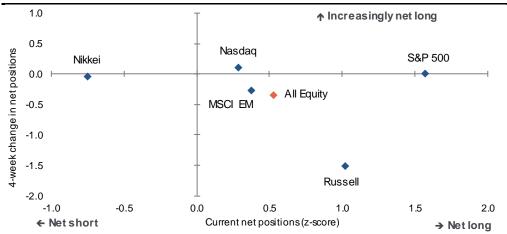
Equity (1)

Net positions: current levels (long or short) within their historical range



Marker: current net positions long (+) or short (-). Bar: historical range (min-max). Standard deviations around historical average (z-score)

Momentum: current net positions versus 4 weeks ago (vertical)



Horizontal: current net positions long (+) or short (-). Vertical: momentum = change in net positions versus 4 weeks ago. Both in z-score

History of net positions - All Equity



Normalised net positions on All Equity: S&P 500, Nasdaq, Nikkei and Russell 2000. Dotted lines: 5y z-score of 2 and -2



Equity (2)





20

10

19

18

Net positions on S&P 500: Combination of (S&P 500 index x \$250.00) & E-Mini contracts (\$50)

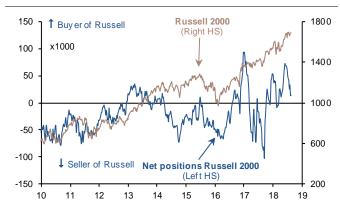
Net positions on the VIX (implied volatility on the S&P 500): (VIX \overline{x} \$1000)

13

14

12

Russell 2000



Nasdaq

-100

-200



15

16

Net positions on Russell 2000: E-Mini contracts on ICE (until 09/2017) and CME (\$50)

Net positions on Nasdaq : (NASDAQ 100 index x \$100) & E-Mini contracts (\$20)

Nikkei

Net positions on Nikkei: (Nikkei index x \$5.00)



MSCI EM

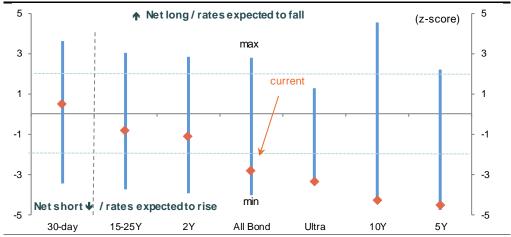


Net positions on the MSCI emerging markets. MSCI index in USD: E-Mini contracts (\$50)



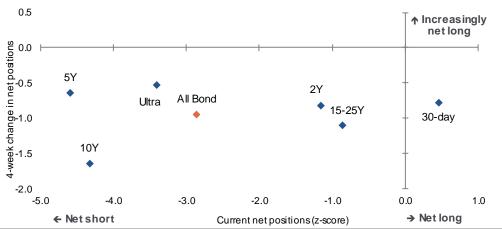
Rates (1)

Net positions: current levels (long or short) within their historical range



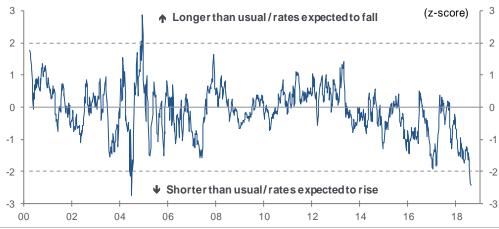
Marker: current net positions long (+) or short (-). Bar: historical range (min-max). Standard deviations around historical average (z-score)

Momentum: current net positions versus 4 weeks ago (vertical)



Horizontal: current net positions long (+) or short (-). Vertical: momentum = change in net positions versus 4 weeks ago. Both in z-score

History of net positions - All US Treasuries

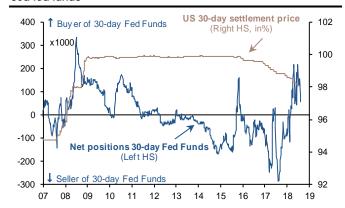


Normalised net positions on All US Treasuries (UST): 2Y, 5Y, 10Y, 15-25Y, Ultra. Dotted lines: 5y z-score of 2 and -2



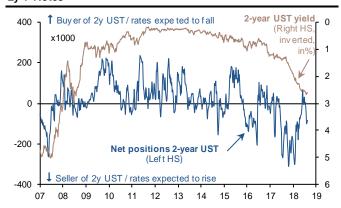
Rates (2)





Net positions on 30 day Federal Funds

2y T-Notes



Net positions on 2y US Treasury Notes: remaining term to maturity of not more than 2 years

5y T-Notes



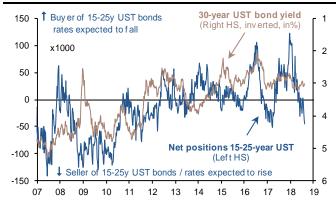
Net positions on 5y US Treasury Notes: remaining term of maturity of not less than 4Y and 2M

10y T-Notes



Net positions on 10y US Treasury Notes: remaining term to maturity of at least 6 ½ years

15-25y T-Bonds



Net positions on 15-25y US Treasury Bonds: term to maturity between 15 and 25 years

Ultra T-Bonds



Net positions on Ultra (Long) US-Treasuries (ULT): term to maturity of not less than 25 years



Rates (3) - Yield curve

Yield curve: net positions on short-term rates (5y) - long-term rates (15-25y)



Yield Curve: net positions on short-term rates (5y US T-Notes) minus long-term rates (15-25y) US Treasury Bonds

5y UST swap yield



5y UST swap yield, in %. Latest data: 16/07/2018 Source: Bloomberg, SG Cross Asset Research/Global Asset Allocation

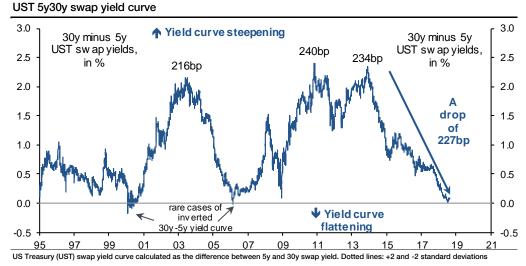
30y UST swap yield



30y UST swap yield, in %. Latest data: 16/07/2018 Source: Bloomberg. SG Cross Asset Research/Global Asset Allocation

Consult our **1-minute guides** for a quick refresh on the terminology used to describe

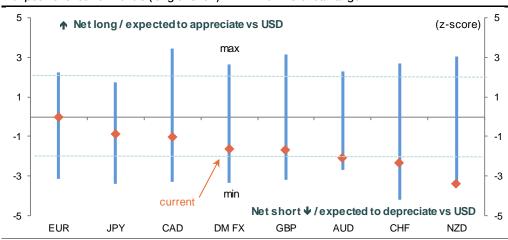
- yield curve dynamics (page 22)
- rates derivates (page 23)





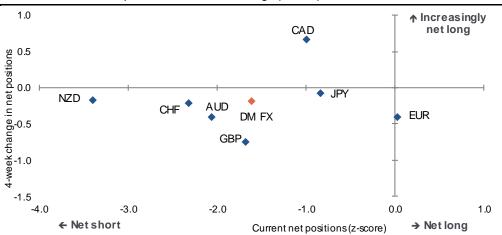
Developed market currencies (1)

Net positions: current levels (long or short) within their historical range



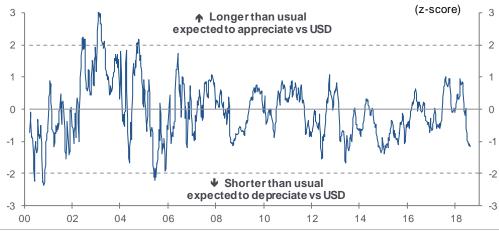
Marker: current net positions long (+) or short (-). Bar: historical range (min-max). Standard deviations around historical average (z-score)

Momentum: current net positions versus 4 weeks ago (vertical)



Horizontal: current net positions long (+) or short (-). Vertical: momentum = change in net positions versus 4 weeks ago. Both in z-score

History of net positions – DM FX



Evolution of normalised net positions. DM FX: EUR, GBP, CHF, JPY, CAD, AUD, NZD. Dotted lines: z-score of 2 and -2

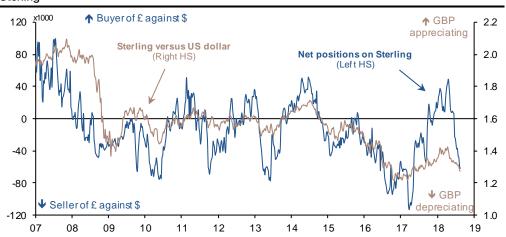


Developed market currencies (2)



Blue, left-hand scale: net positions on euro (contracts of €125,000). Brown, right hand scale: euro versus US dollar

Sterling



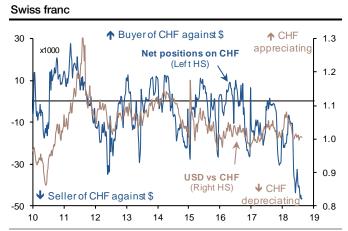
Blue, left-hand scale: net positions on pound sterling (contracts of £62,500). Brown, right hand scale: pound sterling versus US dollar



Blue, left-hand scale: net positions on Japanese yen (contracts of ¥12,500,000). Brown, right hand scale, inverted: Japanese yen versus US dollar

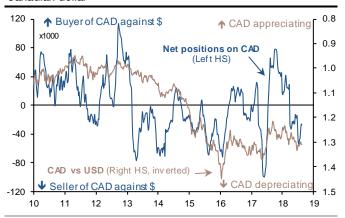


Developed market currencies (3)



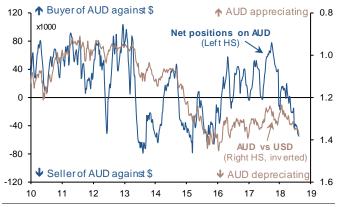
Left: net positions on Swiss franc (contracts of 125,000 CHF). Right: Swiss franc (CHF) versus US dollar

Canadian dollar



Left: net positions on Canadian dollar (contracts of 100,000 CAD).
Right, inverted: Canadian dollar (CAD) versus US dollar

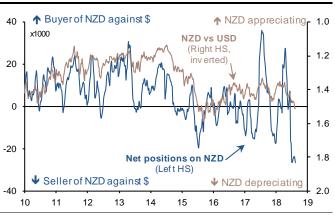
Australian dollar



Left: net positions on Australian dollar (contracts of 100,000 AUD).

Right, inverted: Australian dollar (AUD) versus US dollar

New Zealand dollar



Left: net positions on New Zealand dollar (contracts of 100,000 NZD).

Right, inverted: New Zealand dollar (NZD) versus US dollar

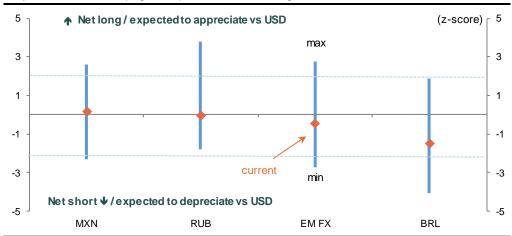
Net positions: all non-commercial positions reported to the CFTC. Data as of 14/08/2018, released 17/08/2018 Sources for all graphs on this page: CFTC, Datastream, SG Cross Asset Research/Global Asset Allocation

For further reading and detailed analysis of the link between FX and commodities, please consult When Commos meet FX, a Cross Asset approach from our colleagues in cross asset strategy, commodity strategy, FX strategy, EM strategy and Equity derivatives strategy teams. Link to the last When Commos meet FX.



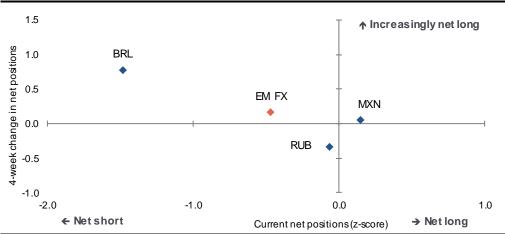
Emerging market currencies (1)

Net positions: current levels (long or short) within their historical range



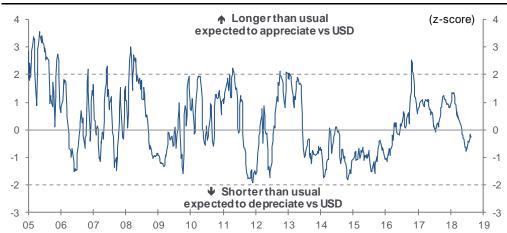
Marker: current net positions long (+) or short (-). Bar: historical range (min-max). Standard deviations around historical average (z-score)

Momentum: current net positions versus 4 weeks ago (vertical)



Horizontal: current net positions long (+) or short (-). Vertical: momentum = change in net positions versus 4 weeks ago. Both in z-score

History of net positions - EM FX

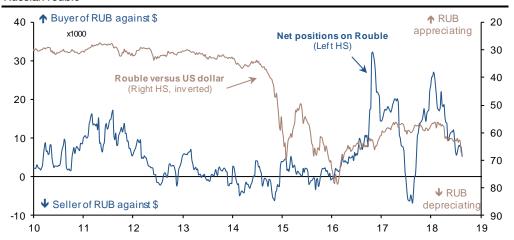


Evolution of normalised net positions on emerging market currencies (EM FX): RUB, MXN, BRL. Dotted lines: 5y z-score of 2 and -2



Emerging market currencies (2)

Russian rouble



Blue, left-hand scale: net positions on Russian rouble (contracts of 2,500,000 RUB). Brown, right hand scale, Inverted: Russian rouble versus US dollar

Brazilian real



Blue, left-hand scale: net positions on Brazilian real (contracts of 100,000 BRL). Brown, right hand scale: Brazilian real versus US dollar

Mexican peso

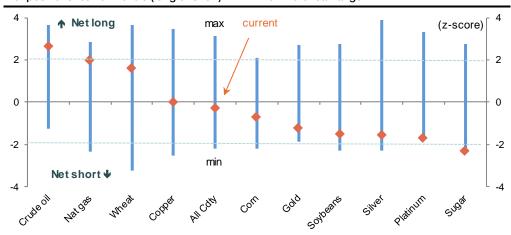


Blue, left-hand scale: net positions on Mexican peso (contracts of 500,000 MXN). Brown, right hand scale: Mexican peso versus US dollar



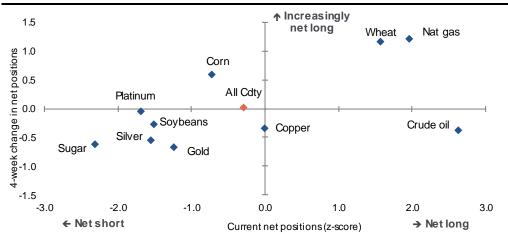
Commodities (1)

Net positions: current levels (long or short) within their historical range



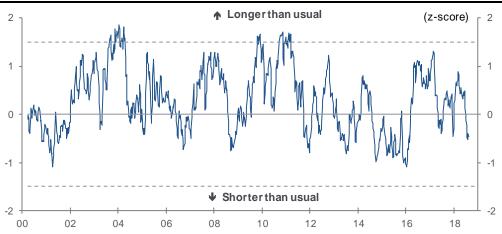
Marker: current net positions long (+) or short (-). Bar: historical range (min-max). Standard deviations around historical average (z-score)

Momentum: current net positions versus 4 weeks ago (vertical)



Horizontal: current net positions long (+) or short (-). Vertical: momentum = change in net positions versus 4 weeks ago. Both in z-score

History of net positions - All Commodities



Evolution of normalised net positions on All Commodities: oil, gas, gold, silver, platinum, copper, corn, soybean, wheat, sugar. In 5y z-scores.

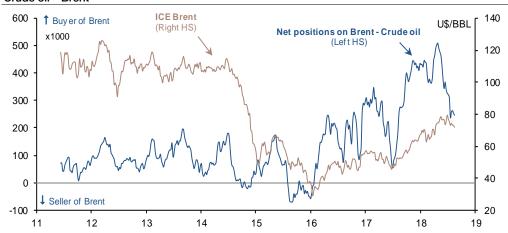


Commodities (2) oil and gas

Crude oil - WTI 1 Buyer of WTI U\$/BBL[x1000 NYMEX WTI Net positions on Crude oil (Left HS) (Right HS)

Blue, left-hand scale: net positions on WTI crude oil (Contracts of 1,000bbl) Brown, right hand scale: oil price, WTI, in \$/bbl.

Crude oil - Brent



Blue, left-hand scale: net positions on Brent crude oil (Contracts of 1,000bbl). Brown, right hand scale: oil price, Brent, in \$/bbl.

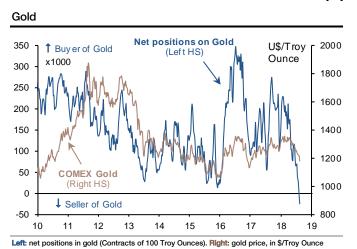
Natural gas



Left: net positions in natural gas (Contracts of 10,000 million British Thermal Units). Right: natural gas price, in \$/mmbtu.



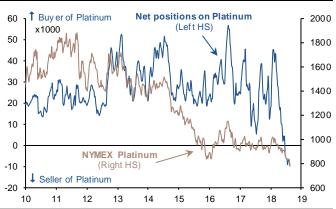
Commodities (3) metals





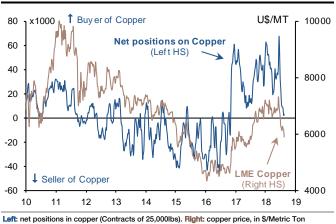
Left: net positions in silver (Contracts of 5,000 Troy Ounces). Right: silver price, in \$/Troy Ounce

Platinum



Left: net positions in platinum (Contracts of 50 Troy Ounces). Right: platinum price, in \$/Troy

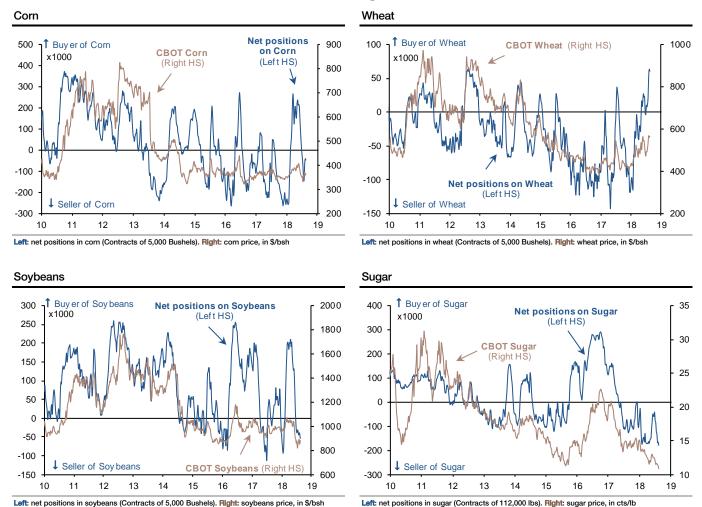
Copper Aluminium







Commodities (3) agriculture



Net positions: all non-commercial positions reported to the CFTC. Data as of 14/08/2018, released 17/08/2018 Sources for all graphs on this page: CFTC, SG Cross Asset Research/Global Asset Allocation

For further reading and detailed analysis of commodities, please consult the <u>Commodity Compass</u> from our colleagues in the commodity team. Link to the last <u>Commodity Compass Positioning Analytics</u>.



Hedge fund positions - Table

Equities

| Total Open Interest | Hedge Funds' share of Open Interest | Market | Net Position Latest | -4 weeks Net Position | Positions at start 2018 | Historical Net Long | Contracts Net Long | Historical Net Short | Contracts Net Short |
|---------------------|--|--------------|------------------------|--------------------------|----------------------------|------------------------|-----------------------|-------------------------|------------------------|
| 17-Aug | 17-Aug | | 17-Aug | 20-Jul | 05-Jan | Date | contracts | Date | contracts |
| 830 | 22% | S&P 500 | 37 | 36 | 32 | Jan-09 | 71 | Sep-07 | -125 |
| 103 | 52% | Nasdaq | 15 | 16 | 7 | Oct-16 | 66 | Aug-06 | -30 |
| 553 | 49% | Russell 2000 | 14 | 40.8 | 49 | Jan-17 | 94 | Sep-17 | -102 |
| 1,004 | 41% | MSCI EM | 148 | 121 | 157 | Oct-16 | 246 | Sep-15 | 19 |
| 32 | 56% | Nikkei | -6 | -5 | 1 | Apr-13 | 17 | Jun-08 | -41 |
| 493 | 70% | VIX | -131 | -72 | -92 | Apr-18 | 93 | Oct-17 | -175 |

^{*}For MSCI EM (data available since 07/2014), 19 represents the minimum Net positions which are exceptionally Net long.

Bonds

| Total Open Interest 17-Aug | Hedge Funds' share of Open Interest 17-Aug | Market | Net Position Latest 17-Aug | -4 weeks Net Position 20-Jul | Positions at start 2018 05-Jan | Historical Net Long Date | Contracts Net Long contracts | Historical Net Short Date | Contracts Net Short contracts |
|-------------------------------|--|------------------|----------------------------------|------------------------------------|--------------------------------------|--------------------------------|------------------------------------|---------------------------------|-------------------------------------|
| 2,097 | 49% | 2Y UST Notes | -84 | -18 | -226 | May-11 | 236 | Oct-17 | -311 |
| 4,470 | 42% | 5Y UST Notes | -805 | -691 | -447 | May-08 | 387 | Aug-18 | -843 |
| 4,608 | 35% | 10Y UST Notes | -611 | -374 | -52 | Aug-07 | 668 | Aug-18 | -611 |
| 1,048 | 28% | 30Y UST Bonds | -45 | 3 | 109 | Dec-17 | 123 | May-06 | -172 |
| 1,071 | 40% | ULTRA UST Bonds | -241 | -210 | -106 | Jun-12 | 29 | Aug-18 | -241 |
| 1,905 | 22% | 30-Day Fed Funds | 59 | 127 | -93 | Jan-00 | 334 | Jan-00 | -286 |

Currencies

| Total Open Interest | Hedge Funds' share of Open Interest | Market | Net Position Latest | -4 weeks Net Position | Positions at start 2018 | Historical Net Long | Contracts Net Long | Historical Net Short | Contracts Net Short |
|---------------------|--|--------|------------------------|--------------------------|-------------------------|------------------------|-----------------------|-------------------------|------------------------|
| 17-Aug | 17-Aug | | 17-Aug | 20-Jul | 05-Jan | Date | contracts | Date | contracts |
| 628 | 60% | EUR | -5 | 23 | 130 | Feb-18 | 147 | Apr-15 | -226 |
| 296 | 60% | GBP | -62 | -37 | 18 | Jul-07 | 100 | Mar-17 | -113 |
| 93 | 62% | CHF | -46 | -43 | -16 | Nov-04 | 41 | Jun-07 | -79 |
| 214 | 72% | JPY | -63 | -59 | -123 | Apr-16 | 70 | Jun-07 | -194 |
| 20 | 44% | RUB | 5 | 8 | 26 | Oct-16 | 32 | Aug-17 | -7 |
| 208 | 94% | MXN | 31 | 29 | 35 | Jan-13 | 152 | Sep-16 | -90 |
| 31 | 103% | BRL | -17 | -27 | 0 | Feb-17 | 26 | Dec-14 | -50 |

Commodities

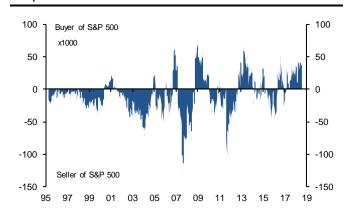
| Total Open Interest | Hedge Funds' share of Open Interest | Market | Net Position Latest | -4 weeks Net Position | Positions at start 2018 | Historical Net Long | Contracts Net Long | Historical Net Short | Contracts Net Short |
|---------------------|--|-------------|------------------------|--------------------------|-------------------------|------------------------|-----------------------|-------------------------|------------------------|
| 17-Aug | 17-Aug | | 17-Aug | 20-Jul | 05-Jan | Date | contracts | Date | contracts |
| 3,170 | 21% | Crude Oil | 609 | 673 | 671 | Feb-18 | 784 | Jan-98 | -64 |
| 1,605 | 23% | Natural Gas | 162 | 45 | 5 | May-17 | 246 | Jul-08 | -254 |
| 741 | 55% | Gold | -25 | 39 | 172 | Jul-16 | 348 | Apr-99 | -88 |
| 297 | 63% | Platinum | 3 | 9 | 63 | Aug-16 | 57 | Aug-18 | -10 |
| 271 | 70% | Silver | -3 | 8 | 23 | Apr-17 | 107 | Apr-18 | -18 |
| 85 | 108% | Copper | -10 | -9 | 19 | Oct-17 | 68 | Oct-15 | -45 |
| 2,227 | 28% | Corn | -47 | -134 | 0 | Oct-10 | 373 | Mar-16 | -265 |
| 996 | 34% | Soybean | -54 | -34 | -64 | May-12 | 260 | Jun-17 | -113 |
| 661 | 39% | Wheat | 61 | 12 | -100 | Jun-95 | 149 | Apr-17 | -143 |
| 1,185 | 39% | Sugar | -179 | -122 | -49 | Sep-16 | 291 | Aug-18 | -179 |

Total open interest (O.I.) and net short positions are stated in number of contracts (/1000). Refer to Methodology page for contract specifications on each asset class.



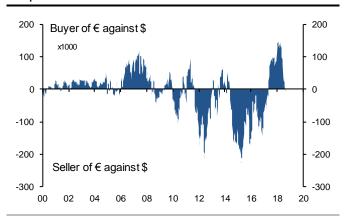
Hedge fund net positions - Long-term view

Net positions on S&P 500



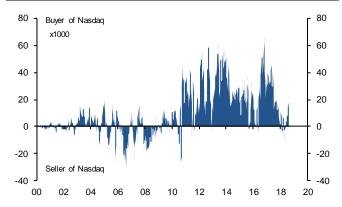
Combination of standard (\$250) contracts and E-Mini contracts (\$50). Start date: 31/03/1995

Net positions on EUR



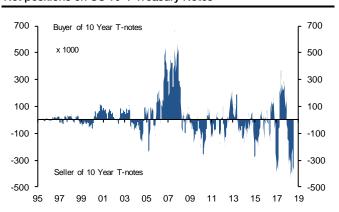
Contracts of 125,000 EUR. Start date: 31/12/1999

Net positions on NASDAQ 100



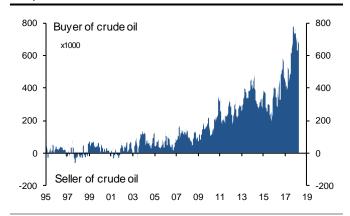
Combination of standard (\$100) contracts and E-Mini contracts (\$20). Start date: 31/12/1999

Net positions on US 10-Y Treasury Notes



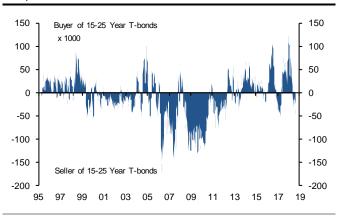
Contracts of \$100,000 face value. Start date: 24/03/1995

Net positions on crude oil



Contracts of 1,000 barrels. Start date: 21/04/1995

Net positions on US 15-25Y T Bonds

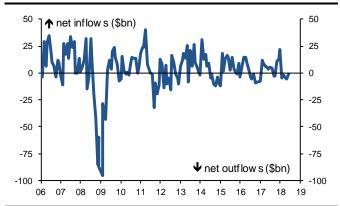


Contracts of \$100,000 face value. Start date: 24/03/1995



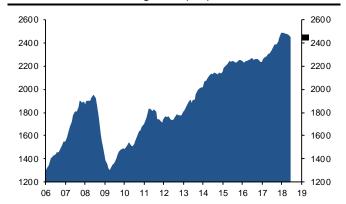
Hedge fund strategies (1) - Flows and assets

Global net inflows / net outflows (\$bn)



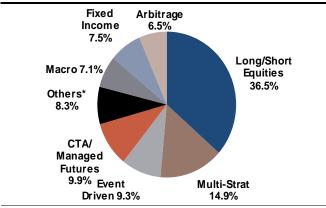
Global equals total of all types of hedge funds. Net inflows in \$bn.

Global assets under management (\$bn)



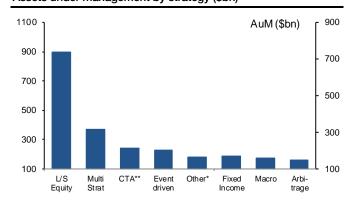
Global Assets under management in \$bn.

Assets under management as a % of Global AuM



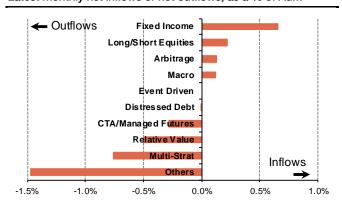
Assets under management by HF strategy, as a percentage of global Assets under Management. CTA**: Commodity Trading Advisor (CTA) / Managed Futures. Other*: distressed debt, relative value, others.

Assets under management by strategy (\$bn)



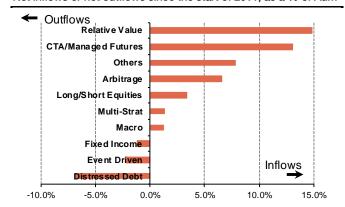
Assets under management by HF strategy, in Sbn. CTA**: Commodity Trading Advisor (CTA) / Managed Futures. Other*: distressed debt, relative value, others.

Latest monthly net inflows or net outflows, as a % of AuM



Latest monthly net inflows/ net outflows, as a percentage of assets under management (AuM) The AuM taken into account is the one at the beginning of the month.

Net inflows or net outflows since the start of 2011, as a % of AuM



Total net inflows or net outflows, as a percentage of assets under management (AuM) The AuM taken into account is the one at the beginning of January 2011.

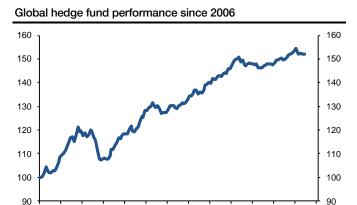
Hedge fund strategies - based on funds reporting to EUREKAHEDGE.

Latest data for June-2018, collected up to 12/07, representing an estimated 42.36% of its universe.



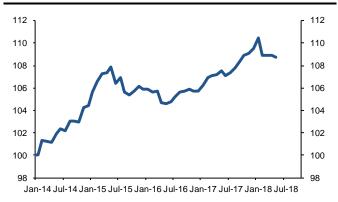
06

Hedge fund strategies (2) - Performance



10 11 12 13 14 15 16

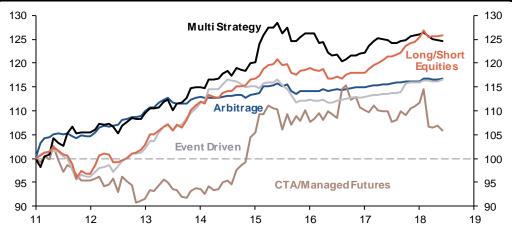
Global hedge fund performance since January 2011



17 Global Hedge Funds performance, in US\$ (Base 100 = 01/01/2006) Global Hedge Funds performance, in US\$ (Base 100 = 01/01/2011)

18 19

Hedge fund strategy performance since January 2011



Strategies index performance, in US\$ (Base 100 = 01/01/2011). Source: SG Cross Asset Research, Eurekahedge

Inflow analysis by strategy

| Assets under Management (\$bn) | Assets under Management (% of total) | | Net in May 2018 (\$bn) | inflows since Jan 2016 (\$bn) | Performance in May 2018 (%) | Since Jan 2016 (%) |
|--------------------------------------|--|----------------------|---------------------------|----------------------------------|--------------------------------|-----------------------|
| 897 | 36.5% | Long/Short Equities | 2.0 | 24.9 | -0.3% | 5.8% |
| 367 | 14.9% | Multi-Strat | -2.8 | 4.4 | 0.2% | -1.1% |
| 229 | 9.3% | Event Driven | 0.00 | -5.0 | 0.0% | 3.9% |
| 243 | 9.9% | CTA/ Managed Futures | -0.7 | 26.7 | -0.4% | -2.7% |
| 159 | 6.5% | Arbitrage | 0.2 | 8.8 | 0.1% | 2.4% |
| 174 | 7.1% | Macro | 0.2 | 2.0 | 0.2% | 1.9% |
| 184 | 7.5% | Fixed Income | 1.2 | -2.1 | 0.1% | 3.7% |
| 56 | 2.3% | Distressed Debt | 0.0 | -4.3 | 0.0% | 3.3% |
| 80 | 3.3% | Others | -0.40 | 8.1 | -0.1% | 2.3% |
| 67 | 2.7% | Relative Value | -1.00 | 4.6 | 0.0% | 4.6% |
| 2456 | 100 | GLOBAL | -1.3 | 68.1 | -0.1% | 2.6% |

Source: SG Cross Asset Research/Global Asset Allocation

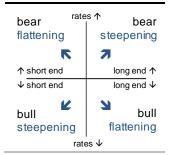
Source: SG Cross Asset Research/Global Asset Allocation. Monthly performances in percentage, based in US\$. CTA: Commodity Trading Advisor

Hedge fund strategies - based on funds reporting to EUREKAHEDGE.

Latest data for June-2018, collected up to 12/07, representing an estimated 42.36% of its universe.



Magic cube of yield curve moves



Source: SG Cross Asset Research/Equity

Example

3y fwd 5s30s bear steepener

A 3 year forward steepening of the yield curve between the 5y sector and the 30y sector.

Bear steepening means that the 30y rates rise faster than 5y rates.

This is a **swaption** agreement based on two underlying yield curves (for 5y and 30y rates).

One-minute guide - Yield curve dynamics (no formulas)

Bull bonds: bonds prices rise/interest rates fall when growth slows ←→ Bear equity
Bear bonds: bonds prices fall/interest rates rise when growth accelerates ←→ Bull equity

Yield curve or term structure of interest rates:

Line that plots the interest rates of bonds at different maturity dates (but equal credit quality)

- short end of the curve: maturities of less than two years, e.g. 1 month (1m) or a year (1y)
- belly of the curve: 3-7y sector
- long end of the curve: maturities of more than 10 years, e.g. 30y

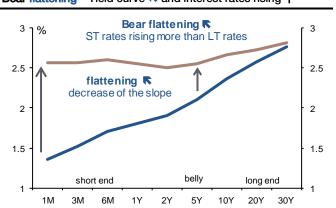
A yield curve is always stated for a set point in time: spot curve, forward curve

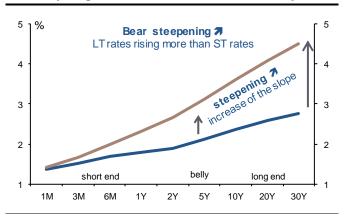
Curve dynamics: changes in the slope between short term (ST) and long term (LT) rates.

- Steepening ₹\subsetex: increase in the spread between LT and ST rates
- Flattening 53: drop in the spread between LT rates and ST rates
- A curve is said to be inverted when LT rates are lower than ST rates

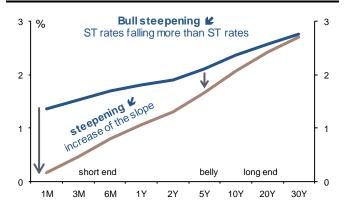
Flattening and steepening of the yield curve can happen both in a context of rising rates \uparrow (bear bonds) or falling rates \downarrow (bull bonds):

- bear flattening ►: ST rates are rising ↑ faster than LT rates
- bear steepening **₹**: LT rates are rising **↑** faster than ST rates
- <u>bull flattening</u> **>**: LT rates are falling **↓** faster than ST rates
- bull steepening ∠: ST rates are falling ↓ faster than LT rates



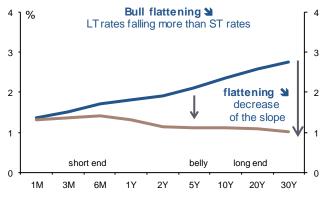


Bull steepening - yield curve and interest rates falling √



Theoretical examples of yield curve steepening and flattening

Bull flattening - yield curve ≥ and interest rates falling ∨



Source: SG Cross Asset Research/Global Asset Allocation



One-minute guide – Swaptions terminology (no formulas)

An interest rate swap (IRS) is an agreement where two counterparties exchange one stream of future interest payments for another. Typically, this involves exchanging fixed and floating rates. Payer = party that wants to pay a fixed interest rate and receive a floating rate

Receiver = party that wants to <u>receive a fixed rate</u> and pay a floating rate.

A swaption (rates derivate) is an option on an underlying interest rate swap. Payer (swaption) = a put on bond prices (and therefore a "call" on interest rates) It starts to make money when interest rates rise above a predetermined level (the strike) Receiver (swaption) = a call on bond prices (and therefore a "put" on interest rates) It starts to make money when interest rates fall below a predetermined level (the strike)

Premium = the cost up front (now) of <u>buying</u> an option; the gain up front of <u>selling</u> an option

Swaptions bring in a degree of non-linearity: the payoff on a long swaption position is made conditional on a given scenario for rates materialising, while the downside is limited to the upfront premium in an adverse scenario.

Examples

3v30v (forward rate)

30 year rates in 3 years time

3y30y payer (swaption)

a 'call' on 30y rates in 3y from now

3y30y payer spread (swaption)

combination of 'buying a payer' and 'selling a payer', both on 30y rates but with different strikes. Swaption contract with 3y horizon.

atmf/3.95%

at the market forward + 3.95%

3y fwd 5s30s bear steepener

This is a swaption agreement based on two underlying yield curves (for 5y and 30y rates). A 3 year forward steepening of the yield curve between the 5y sector and the 30y sector.

Bear steepening means that the 30v rates rise faster than 5v rates.

Factors that influence the price of the swaption are:

- option expiry period
- volatility level of the underlying
- premium (or discount) of implied volatility over delivered (realised) volatility
- strikes can be set at-the-money (atm), out-of-the-money (otm) or even in-the-money (itm)

Gamma: short-term position strongly dependent on realising volatility around particular events Vega: long-term positions that are less sensitive to realising volatility on any particular events

The cost of a long swaption position can be reduced by selling an option with the same underlying and expiry but with an otm strike:

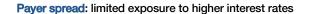
- buying an option (you pay a premium) and
- selling another option (you receive a premium)

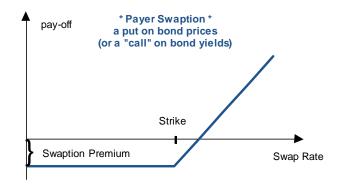
The result is a position that will have a capped upside.

Payer spread = combination of buying a payer and selling an otm payer

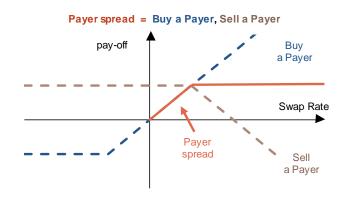
Receiver spread = combination of buying a receiver and selling an otm receiver

Payer (swaption): a "call" on higher interest rates





A payer swaption pay-off diagram Source: SG Cross Asset Research/Global Asset Allocation



A **payer-spread** pay-off diagram Source: SG Cross Asset Research/Global Asset Allocation



Terminology

Eurekahedge

All hedge fund strategy data is provided by EUREKAHEDGE, an independent data provider that tracks over 24,686 alternative funds globally. Indices are equally weighted averages of price performance in local currency. New and obsolete funds are frequently added in order to maintain a fund universe that is as representative as possible and to avoid survivorship bias. Historical index values are altered accordingly. We will indicate on the cover of our report which month the latest data corresponds to, based on fund reporting until that date, and the estimated percentage of funds represented as part of the total universe of funds reporting to Eurekahedge.

Hedge fund strategies

Below are some brief descriptions of the hedge fund strategies mentioned in this report. They are meant to facilitate the reading of our report, not to provide complete or exclusive definitions such as employed by Eurekahedge when classifying the funds it covers.

Long Short. Buying long equities that are expected to increase in value and selling short equities that are expected to decrease in value.

Multi-Strategy. The use of several strategies within the same pool of assets.

Event Driven. Taking significant positions in companies with "special situations."

CTA/Managed Futures. Going long or short in futures contracts in areas such as metals, grains, equity, soft commodities as well as foreign currency and US government bond futures. Arbitrage. Exploits the price differentials that exist as a result of market inefficiencies.

Macro. Holdings primarily based on overall economic and political views of various countries.

Fixed Income. Exploits arbitrage opportunities in interest rate securities.

Distressed Debt. Becoming a major creditor of a company whose bonds trade at very low prices.

Relative value. Going long a certain instrument while going short another instrument in a way that has no net exposure to broad market moves (also called a market neutral strategy).

CFTC: Commodity Futures Trading Commission

The mission of the Commodity Futures Trading Commission (CFTC) is to protect market users and the public from fraud, manipulation, and abusive practices related to the sale of commodity and financial futures and options, and to foster open, competitive, and financially sound futures and option markets.

The CFTC assures the economic utility of the futures markets by encouraging their competitiveness and efficiency; ensuring their integrity; protecting market participants against manipulation, abusive trading practices, and fraud; and ensuring the financial integrity of the clearing process. Through effective oversight, the CFTC enables the futures markets to serve the important function of providing a means for price discovery and offsetting price risk.



How to read the way SG monitors hedge fund positions

CFTC definitions

Net position. The difference between the open long contracts and the open short contracts held by a trader in any one commodity. Data we use have at least a lag of one week with real positions.

Open interest. The total number of futures contracts long or short in a delivery month or market that has been entered into and not yet liquidated by an offsetting transaction or fulfilled by delivery.

Futures and options. For our analysis we use the COT (commitment of traders) futures and options combined reports provided by the CFTC.

E-Mini Futures contracts and US equity index Futures contracts on CME

Futures on the S&P 500, the Nasdaq and Russell 2000 come in two sizes; the large ones are the standard futures that continue to trade on the floor of the Chicago Mercantile Exchange (CME); the smaller ones are E-Mini futures (1/5 of the size of a standard CME futures) where trade is fully electronic. Trading volume in the standard futures has now been surpassed by that of the E-Minis that are now the most highly traded stock-index futures in the world.

E-Mini S&P 500 futures are legally binding agreements to buy or sell the cash value of the S&P 500 Index at a specific future date. The contracts are valued at \$50 x the future price. For example, if the Mini S&P 500 future price is at 920.00, the value of the contract is \$46,000 (\$50.00).

On US equity index graphs of this report, we have decided to combine the two contracts. Example for the S&P 500:

We add 1/5 of the E-Mini futures (\$50) to the standard contracts (\$250). (S&P 500 Standard X \$250.00) +(1/5 E-Mini S&P 500 X \$50.00)

Disaggregated COT (Commitment of Traders Report)

In the commodity section, the CFTC provides a breakdown into the four following categories:

- 1. Commercials: producers, merchants, processors and end users. The largest of these market participants often dispose of fully equipped and well staffed trading rooms.
- 2. Swap dealers: primarily banks that use futures to manage over-the-counter (OTC) risks associated with their swaps book or index fund offerings (flow of funds into commodity indices).
- 3. Managed money: registered commodity trading advisors or commodity pool operators that actively trade on behalf of clients, frequently hedge funds (hence the title of this report).
- 4. Other reportables: traders that do not fit in any of the other categories. Traditionally the CFTC adds this category to that of managed money, a practice that we continue to follow for example in our net inflow graphs and table, but not in the bar charts with the disaggregated view.

Please observe that what we call "commercials" here is not directly comparable with the other breakdown provided by the CFTC between commercial and non-commercial traders.



Addendum

A specific contract size for each asset class

| EXCHANGES |
|------------------|
| |

CME

Chicago Mercantile Exchange

СВОТ

Chicago Board of Trade

CBOE

Chicago Board Options Exchange

InterContinental Exchange

NYMEX

New York Mercantile Exchange

COMEX

Commodity Exchange Inc

| Equity & Volatility | Data available since | Contract size |
|--|----------------------|---|
| S&P 500 stock index - CME | 31/03/1995 | (S&P 500 index x \$250) |
| E-Mini S&P 500 stock index - CME | 19/09/1997 | (S&P 500 index x \$50) |
| NASD AQ -100 stock index - CME | 18/06/2010 | (NASDAQ 100 index x \$100) |
| E-Mini NASDAQ -100 stock index - CME | 31/12/1999 | (NASDAQ 100 index x \$20) |
| E-Mini Russell 2000 stock index – ICE | 01/05/2009 | (Russell 2000 index x \$50) |
| E-Mini Russell 2000 stock index - CME. | 22/12/2017 | (Russell 2000 index x \$50) |
| VIX futures - CBOE | 31/12/2004 | (VIX x \$1000) |
| Nikkei stock average - CME | 31/12/1999 | (Nikkei index x \$5) |
| MSCI Emerging Markets Mini - ICE | 04/07/2014 | (MSCI EM index x \$50) |
| Bonds & Money Market | | |
| 2y US Treasury notes - CBOT | 31/12/1999 | (contracts of \$200,000 face value) |
| 5y US Treasury notes - CBOT | 31/12/1999 | (contracts of \$100,000 face value) |
| 10y US Treasury notes - CBOT | 24/03/1995 | (contracts of \$100,000 face value) |
| US Treasury bonds - CBOT | 24/03/1995 | (contracts of \$100,000 face value) |
| ULTRA US Treasury bonds - CBOT | 31/12/2010 | (contracts of \$100,000 face value) |
| 30-day federal funds - CBOT | 31/12/1999 | (contracts on \$5,000,000) |
| Interest rate swaps 5y - CBOT | 01/11/1994 | (contracts of \$100,000 notional principal) |
| Interest rate swaps 30y - CBOT | 01/11/1994 | (contracts of \$100,000 notional principal) |
| Currencies | | |
| Euro - CME | 31/12/1999 | (contracts of 125,000 EUR) |
| British pound sterling - CME | 31/12/1999 | (contracts of 62,500 GBP) |
| Swiss franc - CME | 31/12/1999 | (contracts of 125,000 CHF) |
| Japanese yen - CME | 31/12/1999 | (contracts of 12,500,000 JPY) |
| Australian Dollar - CME | 06/06/2003 | (contracts of 100,000 AUD) |
| New Zealand Dollar - CME | 06/06/2003 | (contracts of 100,000 NZD) |
| Canadian Dollar - CME | 24/03/1995 | (contracts of 100,000 CAD) |
| Russian Ruble - CME | 01/05/2009 | (contracts of 2,500,000 RUB) |
| Brazilian Real - CME | 08/04/2011 | (contracts of 100,000 BRL) |
| Mexican Peso - CME | 31/12/1999 | (contracts of 500,000 MXN) |
| Energy & Metals | | |
| Crude oil, light sweet NYMEX | 21/04/1995 | (contracts of 1,000 barrels) |
| Natural Gas - NYMEX | 23/06/2006 | (contracts of 10,000 million British thermal units) |
| Brent Crude - ICE | 07/01/2011 | (contracts of 1,000 barrels) |
| Gold - COMEX | 21/04/1995 | (contracts of 100 troy ounces) |
| Copper-grade #1 - COMEX | 21/04/1995 | (contracts of 25,000 pounds) |
| Silver - COMEX | 21/04/1995 | (contracts of 5,000 troy ounces) |
| Platinum - COMEX | 21/04/1995 | (contracts of 50 troy ounces) |
| Aluminium MW US PLATTS - COMEX | 09/10/2015 | (contracts of 25 metric tons) |
| Agricultural Commodities | | |
| Corn - CBOT | 06/01/2006 | (contracts of 5,000 bushels) |
| Soybeans - CBOT | 24/03/1995 | (contracts of 5,000 bushels) |
| Wheat - CBOT | 21/04/1995 | (contracts of 5,000 bushels) |
| Sugar No. 11 - ICE | 06/01/2006 | (contracts of 112,000 pounds) |

Source: SG Cross Asset Research, CFTC



Dynamic composition of All Asset aggregates

| SG All Asset aggregates | Date | Asset |
|-------------------------|------------|--|
| All Equity (4) | 31/03/2000 | S&P 500 |
| | 31/12/2004 | Nikkei, Nasdaq |
| | 02/05/2014 | Russell 2000 |
| All Bonds (5) | 07/04/2000 | 10Y UST Notes, UST Bonds |
| | 31/12/2004 | 2Y UST Notes, 5Y UST Notes |
| | 15/01/2016 | Ultra UST Bonds |
| All FX (10) | 24/03/2000 | CAD |
| | 31/12/2004 | EUR, GBP, JPY, MXN, CHF |
| | 06/06/2008 | NZD, AUD |
| | 02/05/2014 | RUB |
| | 15/04/2016 | BRL |
| All Commodities (10) | 24/03/2000 | Soybeans |
| | 21/04/2000 | Gold, Oil, Copper, Silver, Platinum, Wheat |
| | 07/01/2011 | Corn, Sugar |
| | 24/06/2011 | Natural gas |
| All Assets (29) | | All Assets is the sum of All Equity, |
| | | All Bonds, All FX and All Commodities |
| | 21/04/2000 | Initially 11 underlying constituents: |
| | | S&P 500, 10Y UST, UST Bonds, CAD, |
| | | Gold, Oil, Copper, Silver, Platinum, |
| | | Wheat, Soybeans |
| | 15/01/2016 | Currently 29 underlying constituents: |
| | | Ultra UST being the latest joiner |

For inclusion in our aggregate series we require a minimum of 5 years net position data. Aggregates are based on equally weighted normalised positions (z-scores). Charts showing the historical evolution of aggregated asset positions are based on rolling 5y Z-scores, not on the full history.

Source: SG Cross Asset Research/Global Asset Allocation, CFTC



Report completed on 22 Aug. 2018 19:24 CET

APPENDIX

ANALYST CERTIFICATION

The following named research analyst(s) hereby certifies or certify that (i) the views expressed in the research report accurately reflect his or her or their personal views about any and all of the subject securities or issuers and (ii) no part of his or her or their compensation was, is, or will be related, directly or indirectly, to the specific recommendations or views expressed in this report: Arthur van Slooten, Alain Bokobza, Charles De Boissezon, Praveen Singh, Gaëlle Blanchard, Sophie Huynh, CFA

The analyst(s) who author research are employed by SG and its affiliates in locations, including but not limited to, Paris, London, New York, Hong Kong, Tokyo, Bangalore, Frankfurt, Madrid, Milan, Geneva, Seoul, Warsaw and Moscow

SG EQUITY RESEARCH RATINGS on a 12 month period

BUY: absolute total shareholder return forecast of 15% or more over a 12 month period.

HOLD: absolute total shareholder return forecast between 0% and +15% over a 12 month period.

SELL: absolute total shareholder return forecast below 0% over a 12 month period.

Total shareholder return means forecast share price appreciation plus all forecast cash dividend income, including income from special dividends, paid during the 12 month period. Ratings are determined by the ranges described above at the time of the initiation of coverage or a change in rating (subject to limited management discretion). At other times, ratings may fall outside of these ranges because of market price movements and/or other short term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by research management.

Sector Weighting Definition on a 12 month period:

The sector weightings are assigned by the SG Equity Research Strategist and are distinct and separate from SG equity research analyst ratings. They are based on the relevant MSCI.

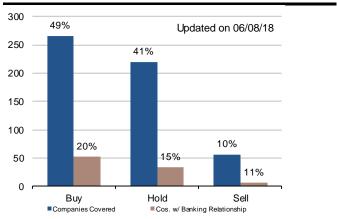
OVERWEIGHT: sector expected to outperform the relevant broad market benchmark over the next 12 months.

NEUTRAL: sector expected to perform in-line with the relevant broad market benchmark over the next 12 months.

UNDERWEIGHT: sector expected to underperform the relevant broad market benchmark over the next 12 months.

The Preferred and Least preferred stocks are selected by the covering analyst based on the individual analyst's coverage universe and not by the SG Equity Research Strategist.

Equity rating and dispersion relationship



Source: SG Cross Asset Research/Equity

All pricing information included in this report is as of market close, unless otherwise stated.

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