

Commodities Flows

Week Ending February 25th 2014

- Commodities
- Relative Value

- **Index:** Commodity index trading data for the week ending 25th February imply net outflows of c\$1.35Bn amid only modest daily price movements for the benchmark DJ-UBS and SPGSCI indices. This estimate reduces the YTD index net inflow estimate to below \$0.3Bn. Net redemptions of passive swaps during the reporting period might have been driven by knock-on impacts of unwinds in spread alpha products that are typically short structure strategies and have been adversely impacted this year by the rally at the front of the calendar strip and persistent bullspreading across a broad range of agriculture curves (i.e. soybeans, corn, coffee, cattle, hogs) as well as US natural gas. Final estimates of retail and institutional commodity AUM for January show a decline of 3.4% m/m and 27% y/y to c\$306Bn—a far cry from the recent peak of c\$500Bn in April 2011 during the height of the Libyan civil war and MENA spring.
- **Options/Volatility:** Vols for risky assets continued to trend lower last week. In the US natural gas vol market, investors have been speculating on prices reverting after the summer and open interest of 3Q'14 out-of-the-money puts have surged, which pushed up skews on these expiries. However, given low gas inventories across US, as long as production growth can be absorbed by rebuilding stocks, it is possible that the [summer gas prices can stay elevated](#), which might prompt some investors to short the put spread there.
- **Copper:** Fears over the state of the Chinese economy resulted in LME prices closing the week down by 2% at \$7,065/MT. However, money managers turned slightly net long by 1,459 contracts, after being net short in the previous report.
- **Gold:** Money managers increased their bullish trades by 25% w/w to 113,911 contracts, their highest since Dec 2012, as COMEX prices closed the week up by 1% at \$1,343/oz. and gold ETFs reported a net inflow of 226,648 oz. (or roughly 7 MT) for February, their first monthly inflow since Dec 2012.
- **Petroleum:** Money managers increased their combined futures and options net length in NYMEX WTI to an all-time record 339.1-k contracts during the reporting period as prompt prices were sticky above \$102/bbl and near month calendar spreads remained strong. Robust refinery run-rates and low product stocks have lifted US crude prices in advance of peak turnaround while a plunging US dollar and risk-on bid in equities appear to have lent further price support.
- **Grains:** Specs were sizable net buyers across the staple cereal complex as robust [US ethanol throughput](#) north of 900-k b/d and retrenchment to the Brazilian row crop outlook amid the February drought buttressed cash bids and prompted bullspreading of corn and soybean structure on the screen. [To be sure, fundamental balances and official agency forecasts still suggest significant downside price risk for the oilseed complex and corn in 2H'14 albeit short-term markets that have rolled to the active May contract might stay supported until LatAm loading programs scale in mid-2Q and US spring sowing completes.](#)

NOTE: please reference pages (3-5) for further comments, graphs and tables.

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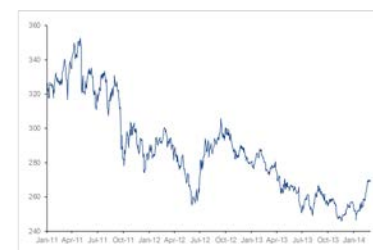
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Figure 1. DJ-UBS Index Level (2011-Present)



Source: Bloomberg, Citi Research

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Commodities Flows Summary

- **Index: commodity index trading data for the week ending 25th February** imply net outflows of c\$1.35Bn amid only modest daily price movements for the benchmark DJ-UBS and SPGSCI indices. This estimate reduces the YTD index net inflow estimate to below \$0.3Bn. Net redemptions of passive swaps during the reporting period might have been driven by knock-on impacts of unwinds in spread alpha products that are typically short structure strategies and have been adversely impacted this year by the rally at the front of the calendar strip and persistent bull-spreading across a broad range of agriculture curves (i.e. soybeans, corn, coffee, cattle, hogs) as well as US natural gas. In some ways, this outflow activity might be mimicking 3Q'12 when the historic US drought inverted CBOT grain curves to historic levels leading to a pain trade across many enhanced index products that were short near month contracts and utilized passive indices as hedges that were then exited. However, given that assets under management (AUM) in this space began the year down c8% from mid-2012, the scale and scope of these flows might be more limited today given a lower starting baseline. **To be certain, final estimates of retail and institutional commodity AUM for January show a decline of 3.4% m/m and 27% y/y to c\$306Bn—a far cry from the recent peak of c\$500Bn in April 2011 during the height of the Libyan civil war and MENA spring.**
- **Options/Volatility: vols for risky assets continued to trend lower last week.** Recent US macro data have been perceived with adjustments due to cold weather and it appears investors might still believe that the underlying economy remains strong and that the labor market will normalize in 2Q. As a result, disappointing data seem to be read as less bearish coupled with what appears as a more concerned Fed on the issue of growth and employment, adding to some risk-on sentiment. On the other hand, EM markets started to price in more uncertainty, mainly driven by higher political risks in Ukraine, Venezuela, drought in Brazil and expansion of the Chinese Yuan FX trading band. Given this dichotomy—US risk-on and EM risk-off—gold vols and flat price struggled to find a direction last week. Levels closed mostly flat despite bumpy intra-week trading. **In the near term, with an active DM central bank announcement calendar (ECB March 6; BOE March 10), the gold market could trade on DM policy expectations. In the absence of a big surprise, gold vol will probably continue to fall in the short-term.** In the energy markets, with low inventories across oil products even with refinery maintenance coming in March, oil prices may stay elevated, which could pressure WTI vol. **But given that oil vols are trading within their lowest range in the last few months, flat price movement at this point could have less impact on vol levels. Therefore, oil vols could stay range-bound in near term.** In the US natural gas vol market, investors have been speculating on prices reverting after the summer and open interest of 3Q'14 out-of-the-money puts have surged, which pushed up skews on these expiries. However, given low gas inventories across US, as long as production growth can be absorbed by rebuilding stocks, it is possible that the [summer gas prices can stay elevated](#), which might prompt some investors to short the put spread there.
- **Copper: fears over the Chinese economy, with Yuan weakness driven by local Central Bank intervention, tightening lending to the property sector and HSBC Flash Manufacturing PMI data on 20th Feb showing a further deceleration in manufacturing in February, resulted in LME prices closing the week down by 2% at \$7,065/MT.** Yet, this price move was not reflected in money manager positioning, with funds posting a small net length of 1,459 lots, after being net short by 8,888 lots in the previous report, due to a reduction in their gross shorts by 20% w/w to 33k contracts in the current reporting period.

However, non-commercial positioning is still net short by 8,079 contracts. **Given the Official Chinese and final HSBC Manufacturing PMIs released over the weekend confirmed a slowdown in their economy's industrial sector, Citi expects that hedge fund positioning will turn net short again next week.** The supply side has also not been providing significant price support, with IMF data showing that the DRC produced 942,000 MT of copper in 2013, up by 52% from 2012, despite electricity shortages trimming potential output by 20%, according to mining industry officials. **Citi expects mine supply growth to drive a 6% y/y rise in refined output to nearly 22 million MT in 2014, creating a surplus of 519,000 MT, up from a 230,000 MT surplus in 2013.**

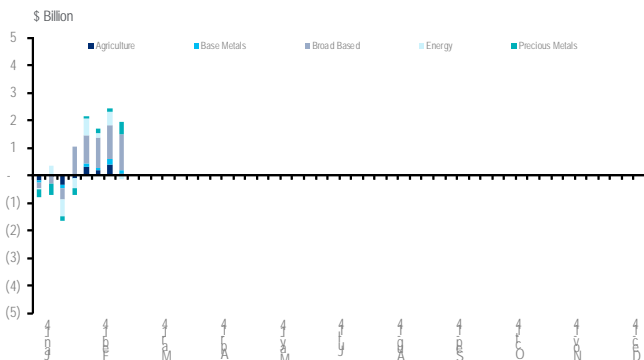
- **LME and SHFE metal stocks:** global LME copper stocks fell by 14,000 MT w/w to 279,150 MT, their lowest since Dec 2012, with stocks currently at 273,725 MT. Inventories drew in Johor by 9,225 MT w/w to 40,725 MT, falling further to end Feb at 39,050 MT, below 40,000 MT for the first time in a year. **Yet, LME Copper stocks built by 1,875 MT on 28th Feb, their largest net daily inflow since 3rd Sept 2013, due to a 3,975 MT build in New Orleans.** Copper appears to be bound for China, with SHFE stocks up by 4,175 MT w/w to 198,286 MT on 27th Feb, their highest since March 2013. **Analysts at SMM state that Chinese Copper premiums have fallen to \$153/MT, their lowest since June 2013, due to Yuan weakness having a negative impact on demand. This could negatively affect Chinese copper import levels, although we believe that this will be offset by copper financing demand.** LME cancellations fell by 9,125 MT w/w to 158,800 MT, yet they now account for 53% of inventory, higher than the 5% level a year ago. **The cash to 3-month backwardation was \$59/MT on 28th Feb, near their widest since May 2012, yet this does not appear to be impacting prices, which have fallen to near \$6,950/MT at the time of writing, their lowest since March 2013 and out of the tight \$7,000-\$7,200/MT range that they have occupied since Jan end.**
- **Gold:** money managers raised their net length for the third straight week, by 25% w/w to 113,911 contracts, their highest since Dec 2012, with hedge funds reducing their gross shorts by 38% w/w to 30,996 contracts. **Bullish sentiment among hedge funds was also reflected by the 226,648 oz. (or roughly 7 MT) net inflow into gold ETFs in Feb, their first monthly inflow since December 2012.** COMEX prices closed the period up by 1% at \$1,343/oz., as concerns about US economic recovery, the state of the Chinese economy and geopolitical risk from the Ukraine encouraged safe haven demand for bullion. **Data from the Hong Kong Statistics Department showed that net Chinese gold imports from Hong Kong tallied 84 MT in Jan, down by 9% m/m, but up by an impressive 327% y/y. However, there was some Chinese bank selling during the week, evidenced by Shanghai-COMEX gold price premiums turning negative, at nearly -\$8/oz. on 25th Feb, and falling volumes on the SGE.** Bloomberg is reporting that the Indian government and the RBI are discussing cutting gold import curbs, which could see Indian physical demand increase. **In addition, geopolitical tension in Ukraine has worsened, resulting in prices surging above \$1,340/oz. again today, after falling to \$1,322/oz. on 28th Feb. Hence, we expect a further rise in hedge fund net length in the next reporting period.**
- **Petroleum:** money managers increased their combined futures and options net length in NYMEX WTI to an all-time record 339.1-k contracts during the reporting period as prompt prices were sticky above \$102/bbl and near month calendar spreads remained strong. Robust refinery run-rates and low product stocks have lifted US crude prices in advance of peak turnaround while a plunging US dollar and risk-on bid in equities appear to have lent further price

support. And escalating tensions in Venezuela raise concerns of additional supply disruptions. But US refinery maintenance has another leg up into mid-March, winter-hit US shale production can return, and barrels concertedly leaving Cushing on the new pipelines add to stocks on the Gulf Coast at a faster pace. If PADD III crude imports and exports do not provide further outlets, Gulf Coast prices could weaken, and the length in WTI could see some paring down.

- **Grains: specs were sizable net buyers across the staple cereal complex as robust [US ethanol throughput](#) north of 900-k b/d and retrenchment to the Brazilian row crop outlook amid the February drought buttressed cash bids and prompted bull-spreading of corn and soybean structure on the screen.** Aggregate non-commercial net length for CBOT corn, soybeans and wheat increased for the seventh consecutive reporting period; up 29.5% w/w and 67% y/y to 331-k contracts. Driving positioning higher has been led by corn as funds flipped from a net short of 95-k lots at the beginning of January to a net long of 87.5-k lots on 25th February although category short-covering in Chicago wheat and fresh soybean longs have also contributed to this move. [To be sure, fundamental balances and official agency forecasts still suggest significant downside price risk for the oilseed complex and corn in 2H'14 albeit short-term markets that have rolled to the active May contract might stay supported until LatAm loading programs scale in mid-2Q and US spring sowing completes.](#) Prices have been buoyed on the back of robust demand for meal and dried distiller grains and what remains very tight old-crop carryout for soybeans. **Interestingly, the soybean put/call ratio has kept sticky between 1.6-1.8x since late-4Q although that appears to be a function of long hedges and some protection on the back-end of the curve as vols have traded cheap. Meanwhile, the corn put/call ratio has continued to grind lower from 1.15x in December towards a more bullish 0.9x level in recent sessions.**

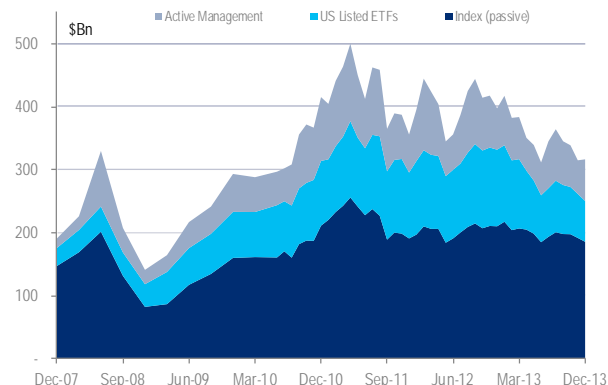
Index and Fund Flows

Figure 2. 2014 Cumulative Commodity Investment by Sector (YTD)*



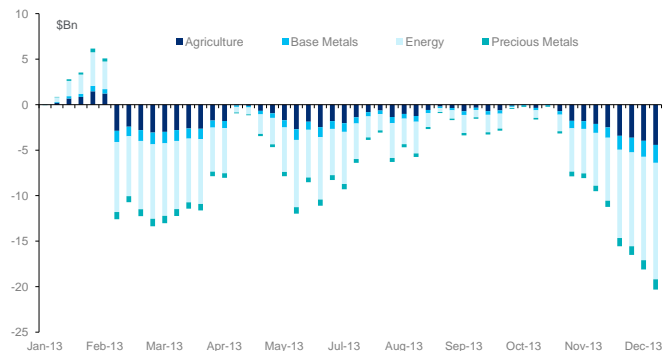
Source: Citi Research, *combined index and US exchange traded products

Figure 3. Institutional and Retail Commodity AUM*



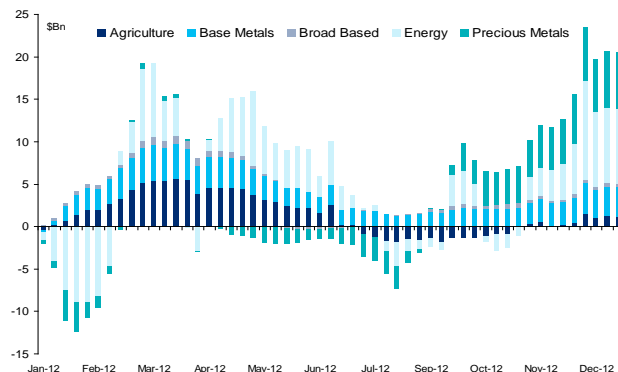
Source: Citi Research, *biased to US traded and listed products and subject to revision. These estimates are not inclusive of structured/enhanced index markets

Figure 4. 2013 Cumulative Weekly Commodity Investment by Sector



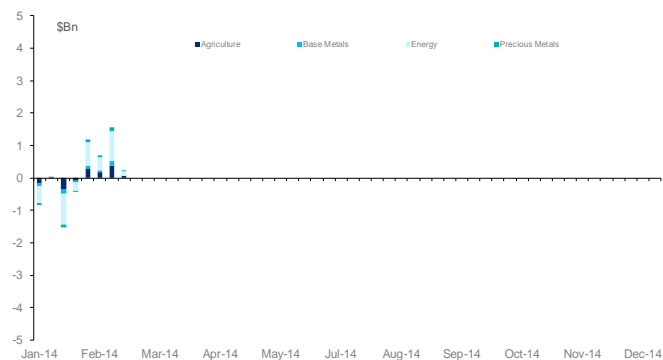
Source: Citi Research, *combined index and US exchange traded products

Figure 5. 2012 Cumulative Weekly Commodity Investment by Sector



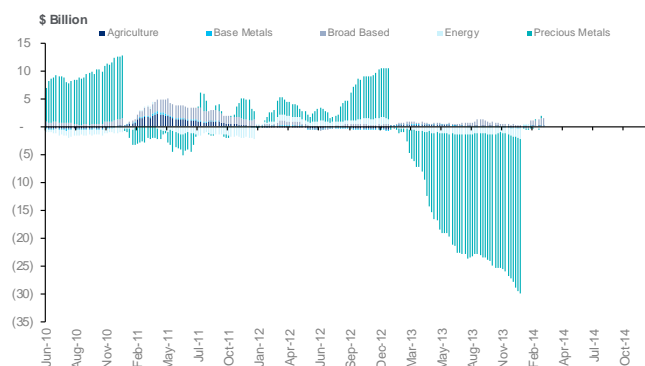
Source: Citi Research, *combined index and US exchange traded products

Figure 6. Commodity Index Swap Cumulative Net Flows (2014 YTD)*



Source: Citi Research, *subject to revision

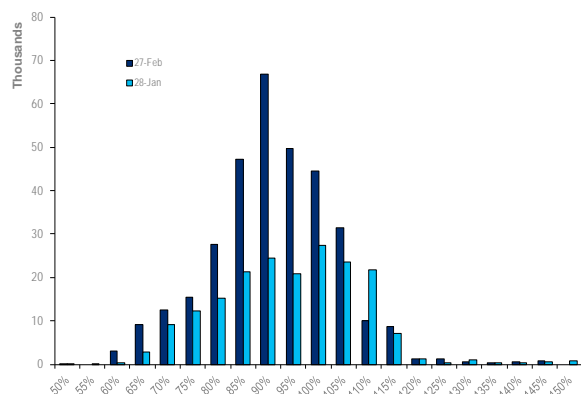
Figure 7. Commodity-Linked Exchange Traded Fund Net Flows*



Source: Citi Research, *major US listed tickers; cumulative per each calendar year.

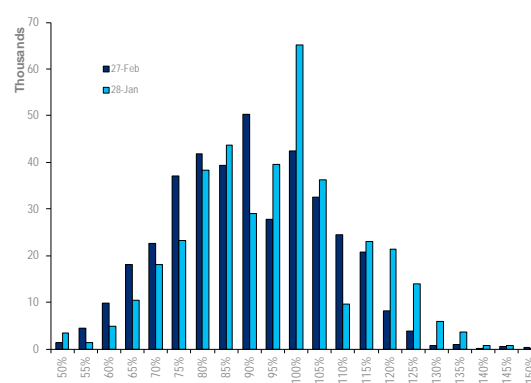
Options and Volatility

Figure 8. WTI Crude Oil – Options OI Distribution (Near Month)



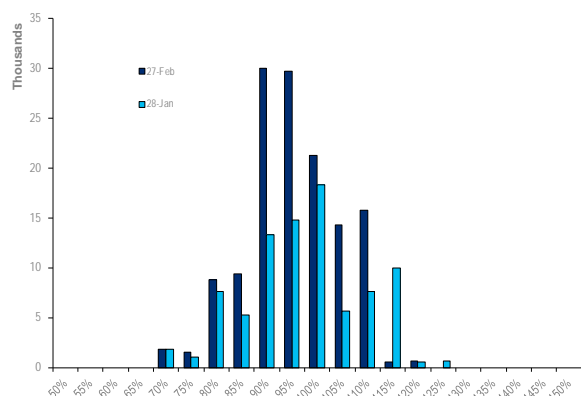
Source: Citi Research

Figure 9. WTI Crude Oil – Options OI Distribution (3rd Month)



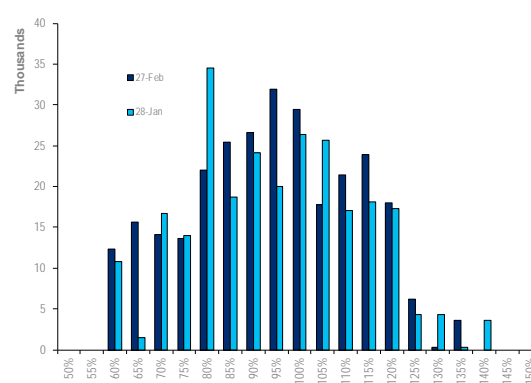
Source: Citi Research

Figure 10. Brent Crude Oil – Options OI Distribution (Near Month)



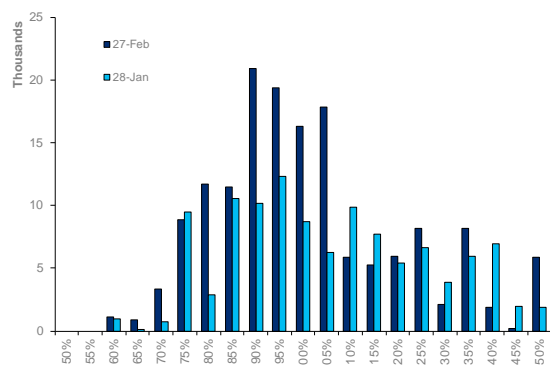
Source: Citi Research

Figure 11. Brent Crude Oil – Options OI Distribution (3rd Month)



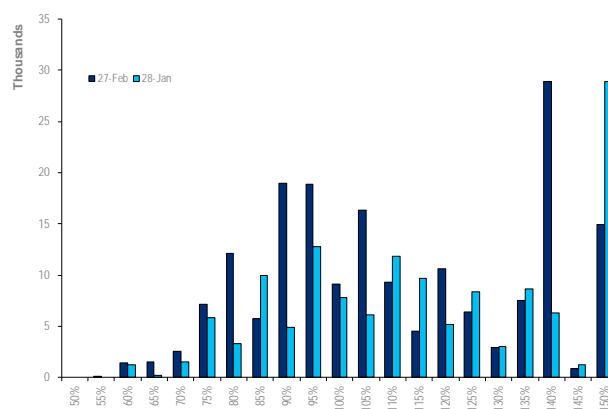
Source: Citi Research

Figure 12. Gold – Options OI Distribution (Near Month)



Source: Citi Research

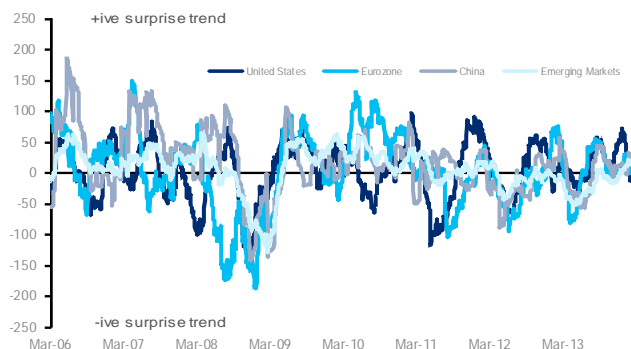
Figure 13. Gold – Options OI Distribution (3rd Month)



Source: Citi Research

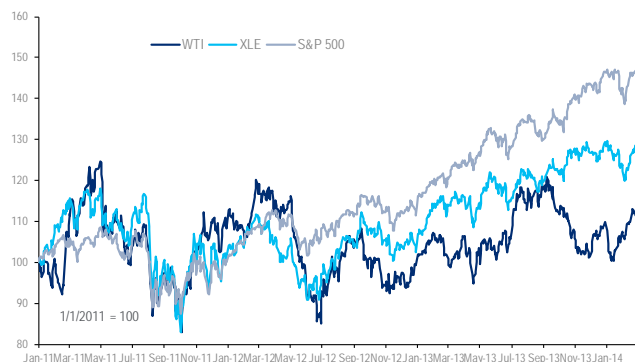
Macro Trends

Figure 14. Citi Economic Surprise Indices for Select Regional Blocs



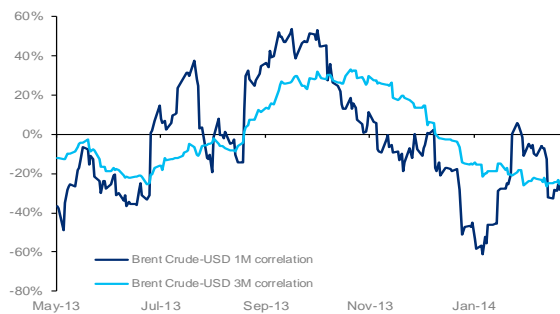
Source: Citi Research

Figure 16. WTI and S&P 500 and XLE Fund



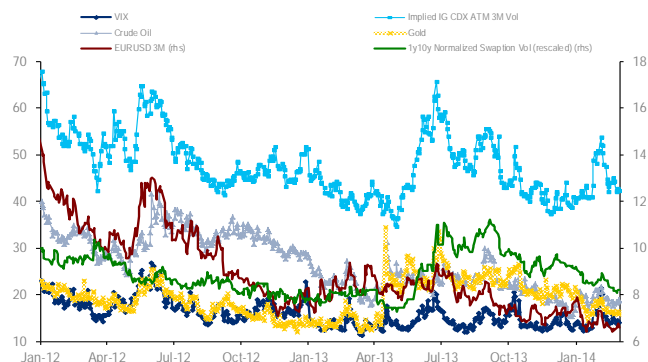
Source: Bloomberg, Citi Research

Figure 18. Crude-USD Correlation



Source: Citi Research

Figure 15. Market Volatility: Equities, Credit, Oil, Gold, FX and Rates



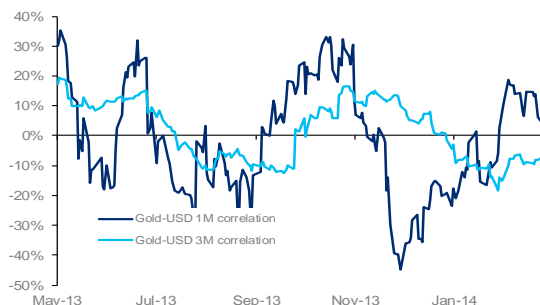
Source: CBOE, IG Credit Trading, Citi Research

Figure 17. Gold/Silver Ratio



Source: Bloomberg, Citi Research

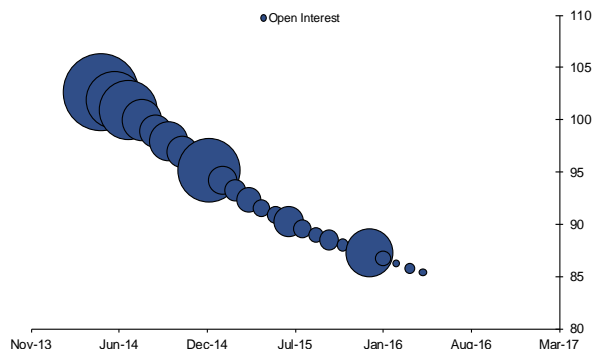
Figure 19. Gold-USD Correlation



Source: Citi Research

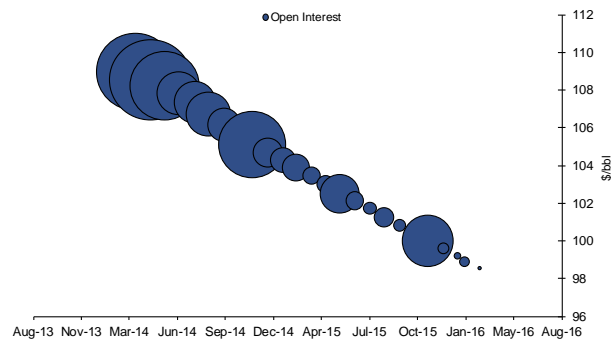
Crude Oil Charts

Figure 20. WTI Crude Oil: Price and Open Interest by Contract Month



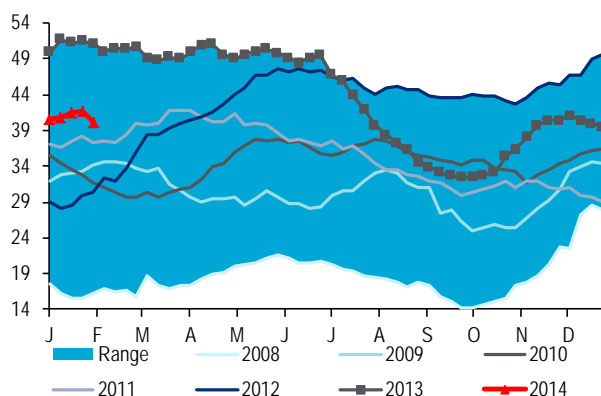
Source: Bloomberg, Citi Research

Figure 21. Brent Crude Oil: Price and Open Interest by Contract Month



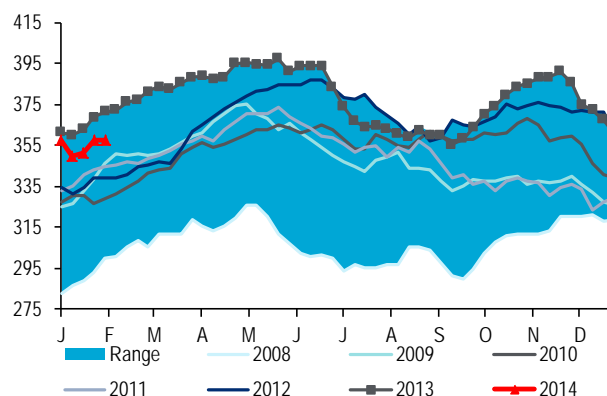
Source: Bloomberg, Citi Research

Figure 22. Cushing Commercial Crude Stocks (m bbls)



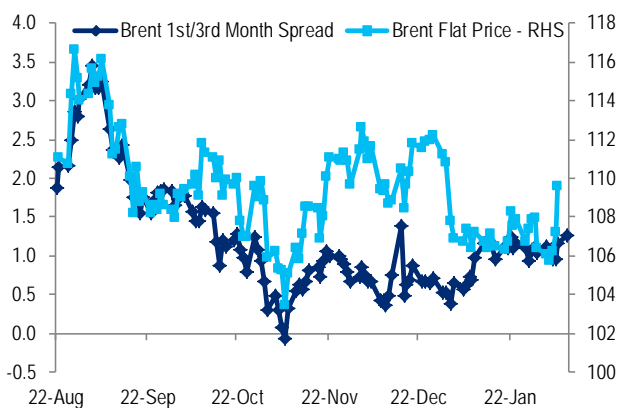
Source: EIA, Citi Research

Figure 23. US Commercial Crude Stocks (m bbls)



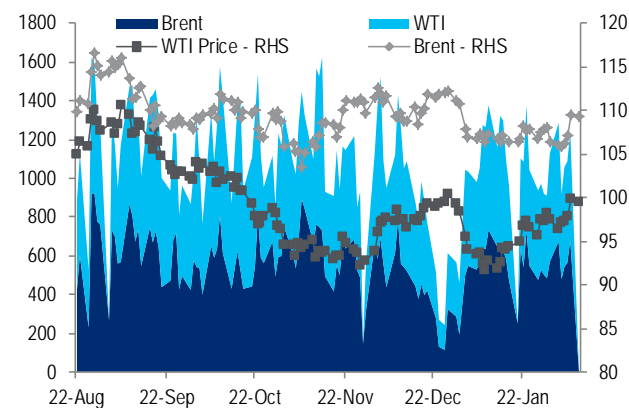
Source: EIA, Citi Research

Figure 24. Brent 1st/3rd Month Spread vs. Brent Flat Price (\$/bbl)



Source: Bloomberg, Citi Research

Figure 25. Brent + WTI Aggregate Futures Volume vs. Flat Price (\$/bbl)



Source: Bloomberg, Citi Research

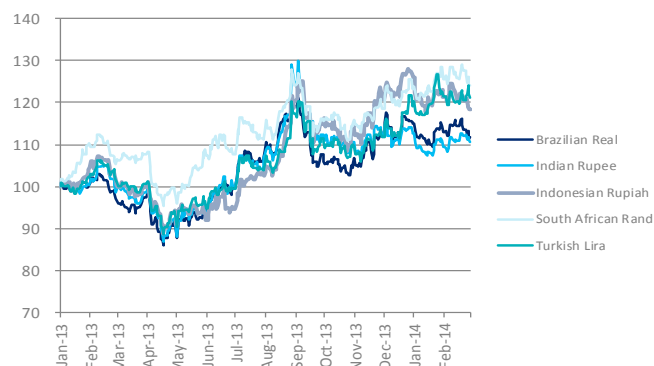
Emerging Market Currencies

Figure 26. Gold Prices (Foreign FX) normalized to Jan'13



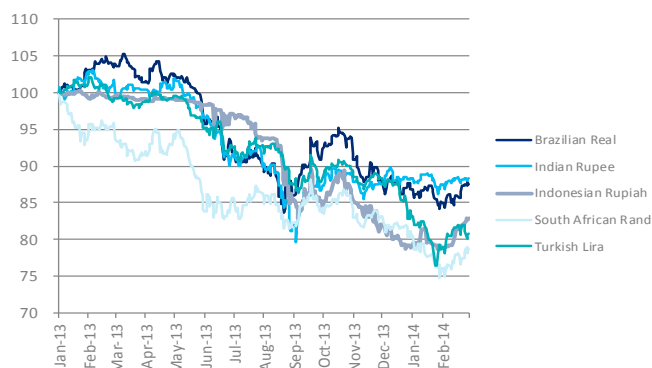
Source: Bloomberg, Citi Research

Figure 27. Brent Prices (Foreign FX) normalized to Jan'13



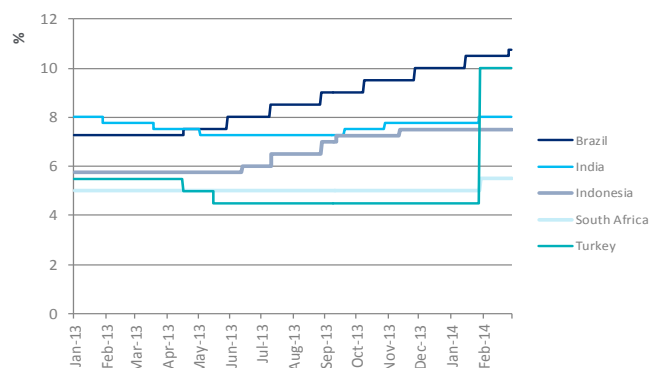
Source: Bloomberg, Citi Research

Figure 28. Fragile-Five Local-USD Cross



Source: Bloomberg, Citi Research

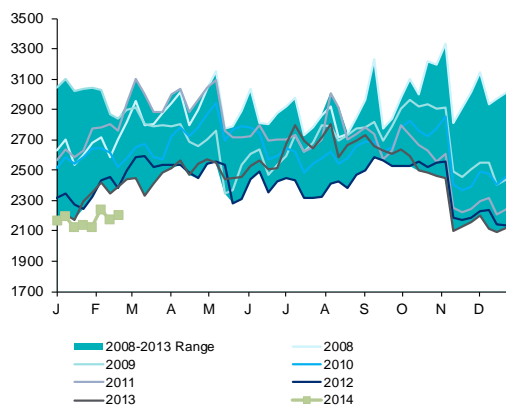
Figure 29. Fragile-Five Policy Rate



Source: Local Central Banks, Citi Research

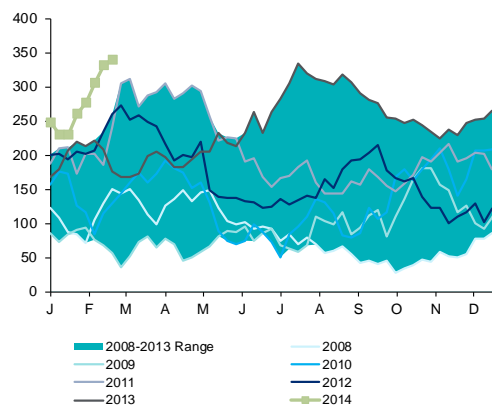
Open Interest and Combined Money Manager Net Length

Figure 30. Combined (F&O, 000' lots) Open Interest WTI



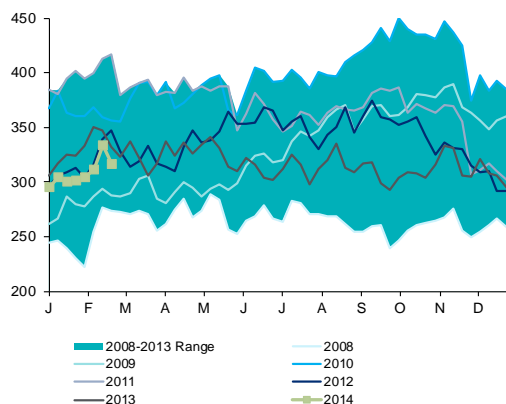
Source: CFTC, Citi Research

Figure 31. Money Manager Combined Net Length - WTI



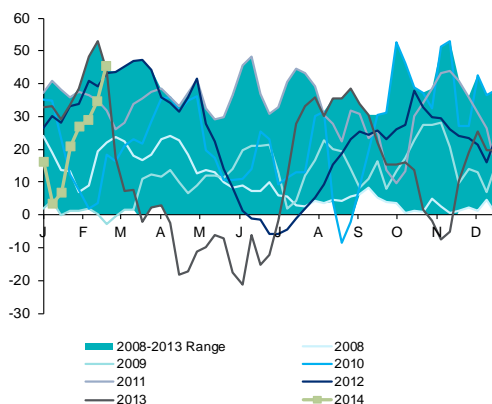
Source: CFTC, Citi Research

Figure 32. Combined (F&O, 000s lots) Open Interest - Heating Oil



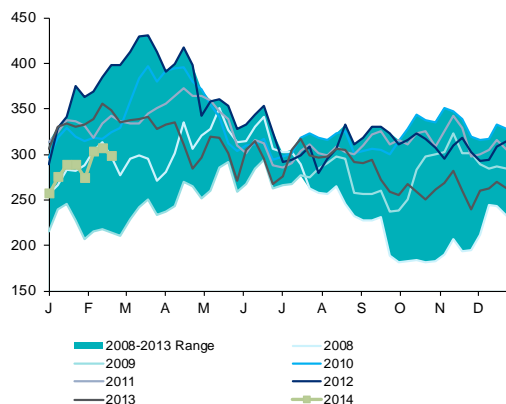
Source: CFTC, Citi Research

Figure 33. Money Manager Combined Net Length - Heating Oil



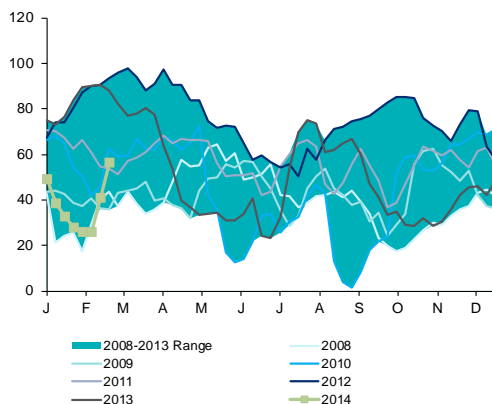
Source: Citi Research

Figure 34. Combined (F&O, 000s lots) Open Interest - RBOB



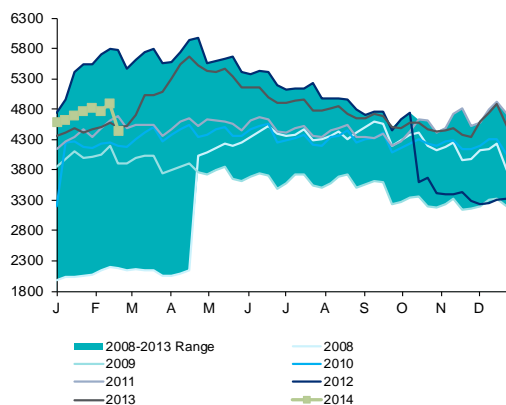
Source: CFTC, Citi Research

Figure 35. Money Manager Combined Net Length - RBOB



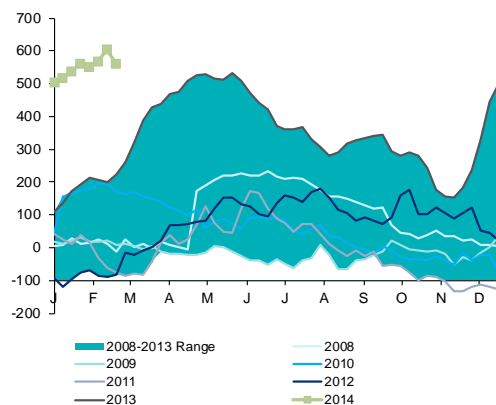
Source: CFTC, Citi Research

Figure 36. Combined (F&O, 000s lots) Open Interest – US Natural Gas



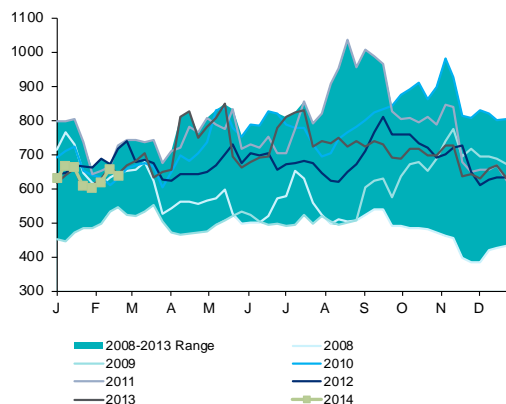
Source: CFTC, Citi Research

Figure 37. Money Manager Combined Net Length – US Natural Gas



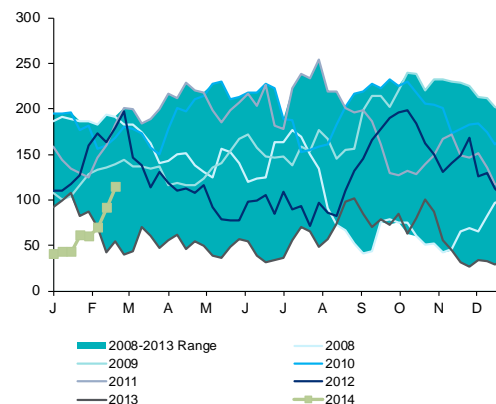
Source: CFTC, Citi Research

Figure 38. Combined (F&O, 000s lots) Open Interest – COMEX Gold



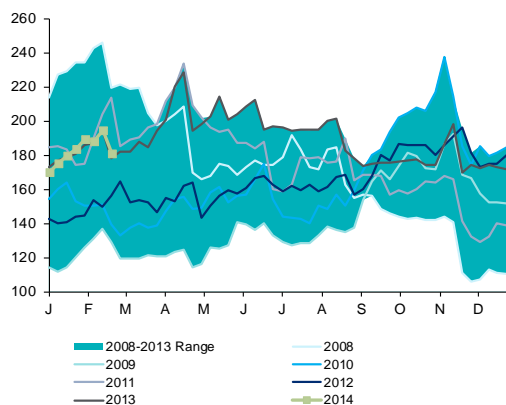
Source: CFTC, Citi Research

Figure 39. Money Manager Combined Net Length – COMEX Gold



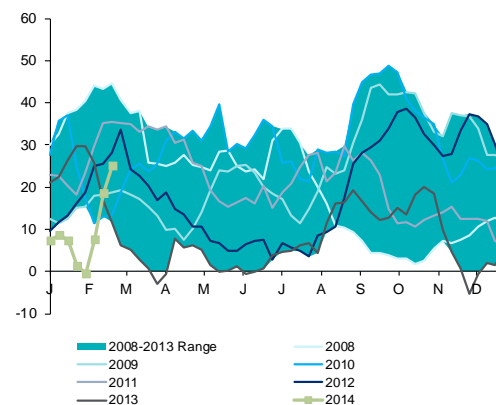
Source: CFTC, Citi Research

Figure 40. Combined (F&O, 000s lots) Open Interest – Silver



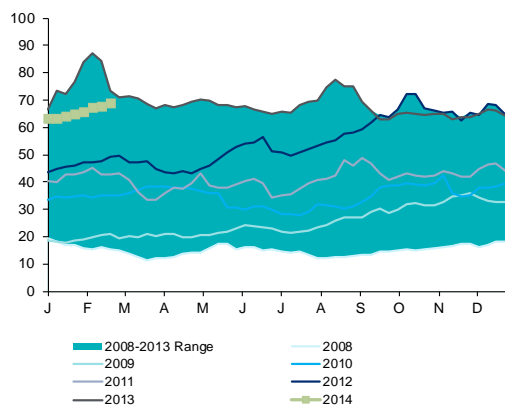
Source: CFTC, Citi Research

Figure 41. Money Manager Combined Net Length - Silver



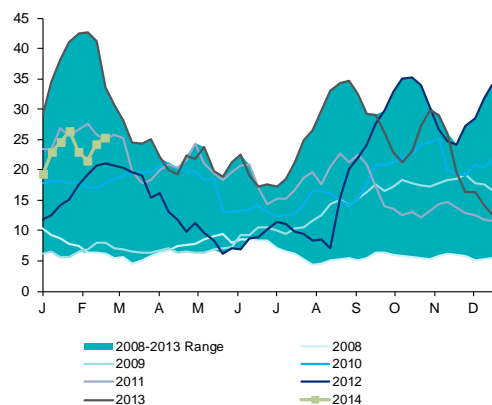
Source: CFTC, Citi Research

Figure 42. Combined (F&O, 000s lots) Open Interest – Platinum



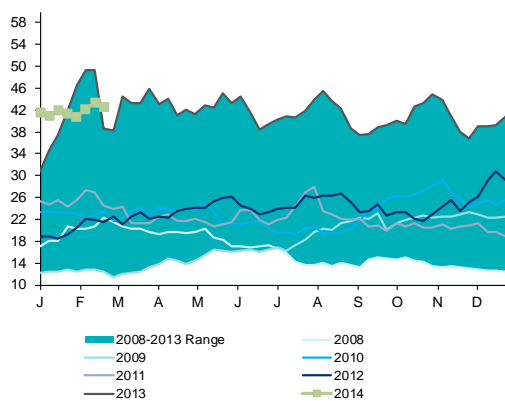
Source: CFTC, Citi Research

Figure 43. Money Manager Combined Net Length - Platinum



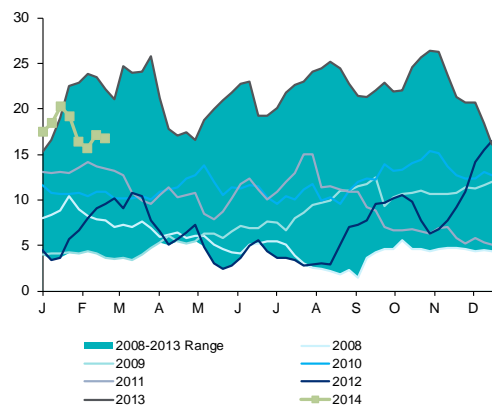
Source: Citi Research

Figure 44. Combined (F&O, 000s lots) Open Interest – Palladium



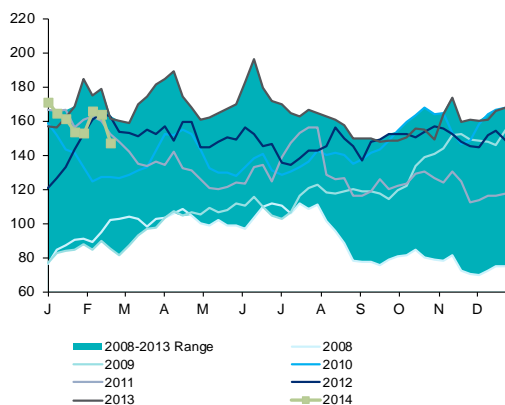
Source: CFTC, Citi Research

Figure 45. Money Manager Combined Net Length - Palladium



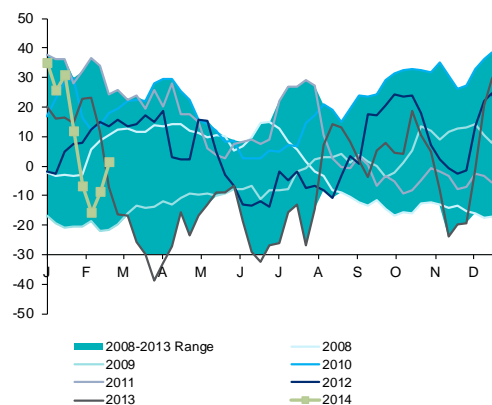
Source: CFTC, Citi Research

Figure 46. Combined (F&O, 000s lots) Open Interest – CME Copper



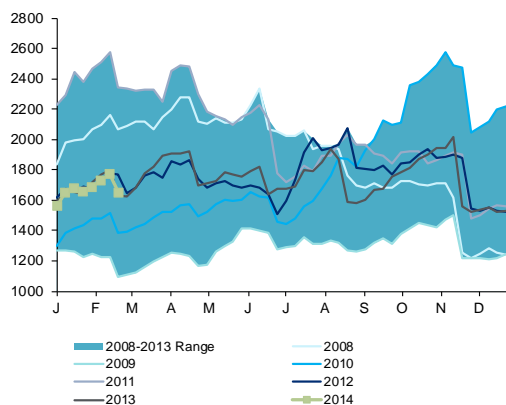
Source: CFTC, Citi Research

Figure 47. Money Manager Combined Net Length – CME Copper



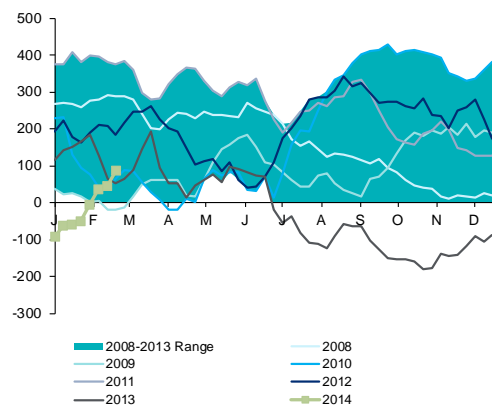
Source: CFTC, Citi Research

Figure 48. Combined (F&O, 000s lots) Open Interest – CBOT Corn



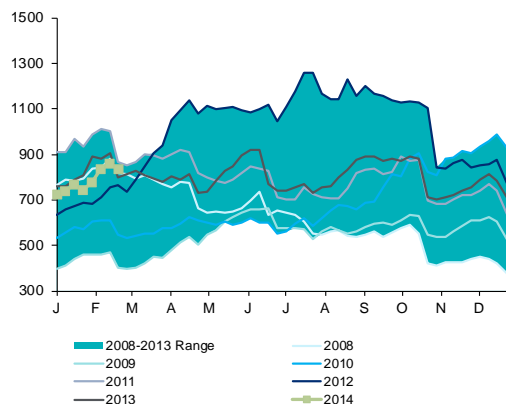
Source: CFTC, Citi Research

Figure 49. Money Manager Combined Net Length – CBOT Corn



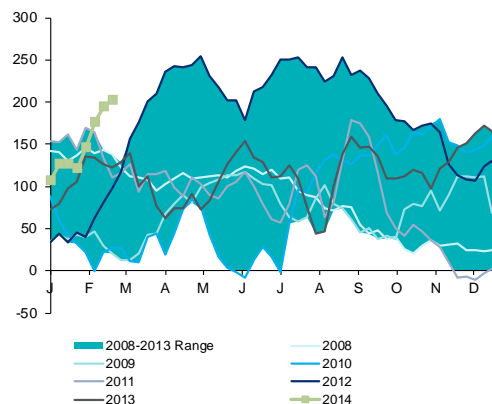
Source: CFTC, Citi Research

Figure 50. Combined (F&O, 000s lots) Open Interest – CBOT Soybean



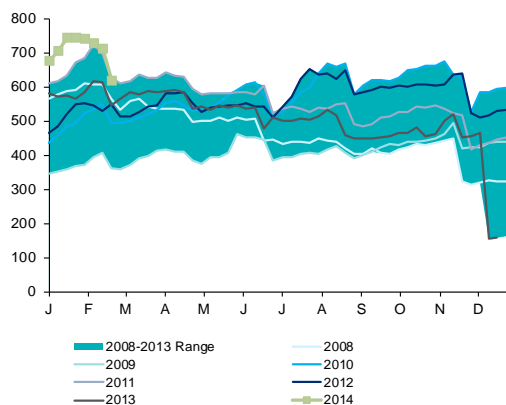
Source: CFTC, Citi Research

Figure 51. Money Manager Combined Net Length – CBOT Soybean



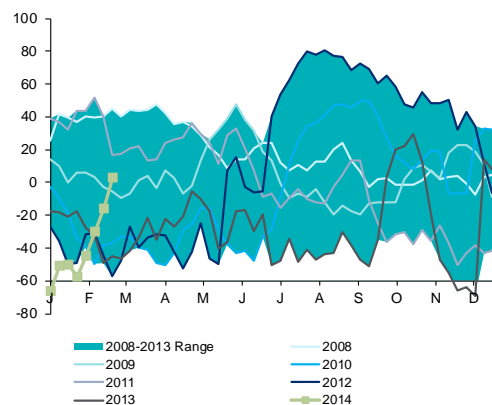
Source: CFTC, Citi Research

Figure 52. Combined (F&O, 000s lots) Open Interest – CBOT Wheat



Source: CFTC, Citi Research

Figure 53. Money Manager Combined Net Length – CBOT Wheat

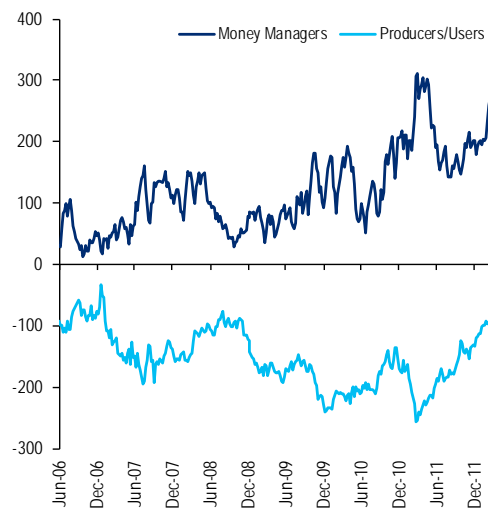


Source: CFTC, Citi Research

Disaggregated Tables & Charts

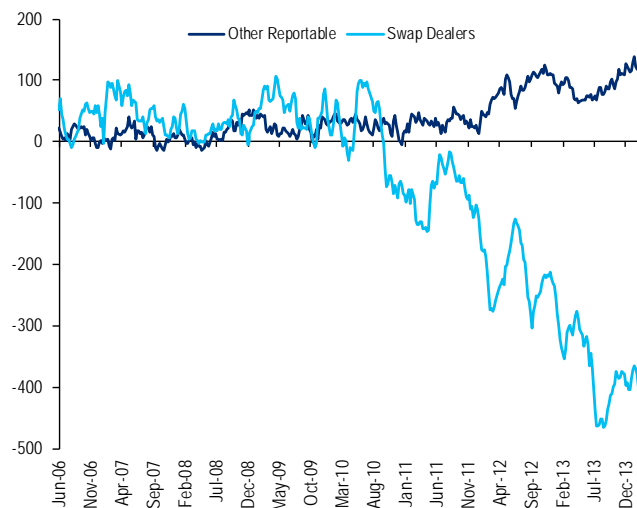
WTI Crude Oil

Figure 54. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 55. Net Length, 000's of contracts



Source: CFTC, Citi Research

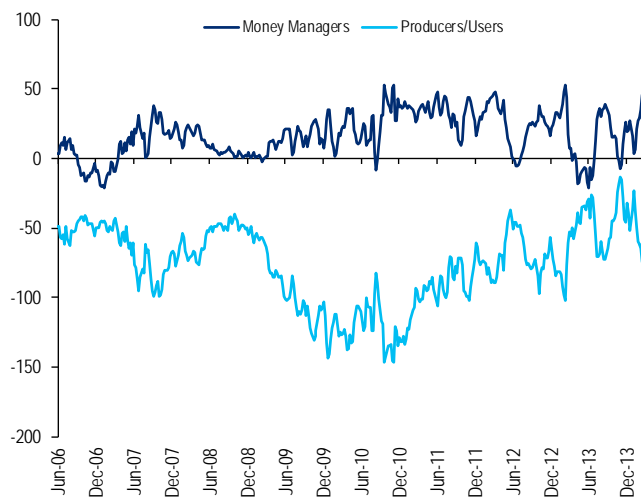
Figure 56. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
WTI NYMEX	522,781	0.9%	34.2%	79,039	2.8%	-28.1%	443,742	0.6%	58.7%	783,125	2.3%	-17.2%
Nymex WTI Calendar Swap	63,724	3.1%	-11.0%	13,127	14.1%	6.1%	50,597	0.7%	-14.6%	1,367	332.6%	22683.3%
WTI ICE Futures	106,931	-7.5%	40.0%	16,275	-12.4%	-67.8%	90,656	-6.6%	250.5%	217,861	3.1%	11.8%
WTI Total	693,436	-0.3%	29.0%	108,441	1.3%	-37.2%	584,995	-0.6%	60.4%	1,002,353	2.6%	-12.1%

Source: CFTC, Citi Research

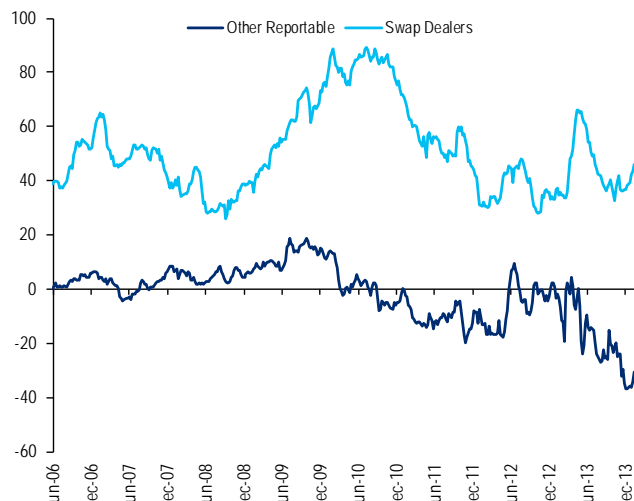
NYMEX Heating Oil

Figure 57. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 58. Net Length, 000's of contracts



Source: CFTC, Citi Research

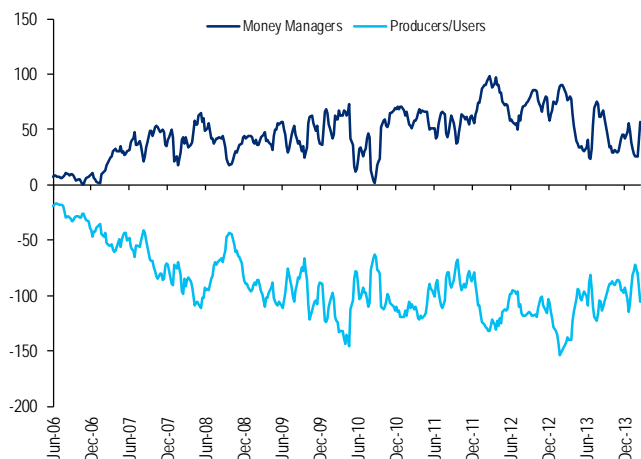
Figure 59. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
#2 HEATING OIL NYMEX	72,453	12.5%	-9.0%	57,531	-5.6%	5.1%	14,922	325.9%	-40.1%	38,318	-13.1%	-38%

Source: CFTC, Citi Research

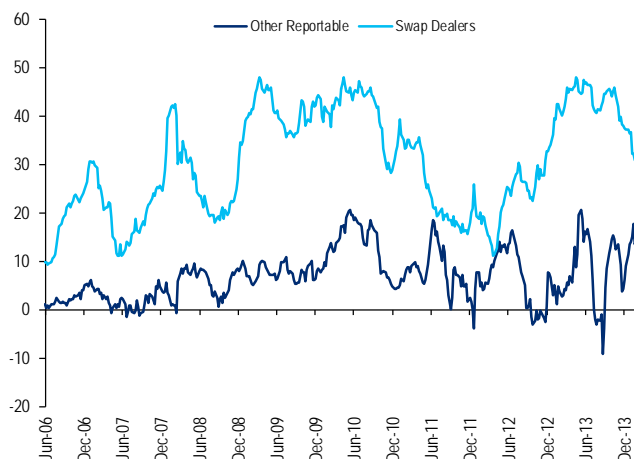
RBOB Gasoline

Figure 60. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 61. Net Length, 000's of contracts



Source: CFTC, Citi Research

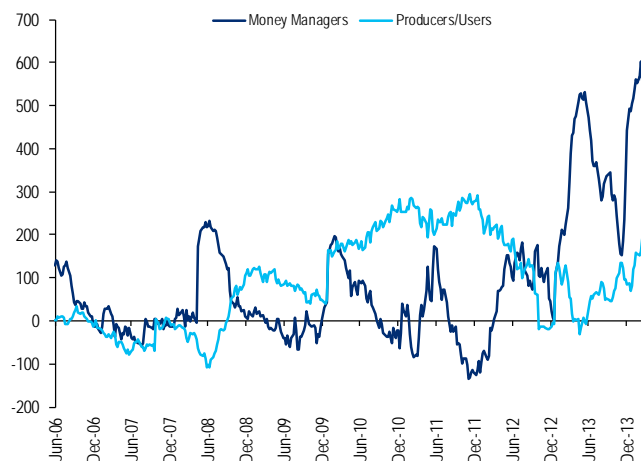
Figure 62. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
RBOB Gasoline NYMEX	100,076	12.8%	-20.6%	33,265	-3.6%	-5.2%	66,811	23.2%	-26.5%	33,536	-13.3%	-23.5%
NYMEX RBOB Calendar Swap	2,138	47.3%	#N/A	253	-13.4%	NA	1,885	62.6%	#N/A	607	-40.1%	#N/A
RBOB Gasoline Total	102,214	13.3%	-18.9%	33,518	-3.7%	-4.5%	68,696	24.0%	-24.4%	34,143	-14.0%	-22.1%

Source: CFTC, Citi Research

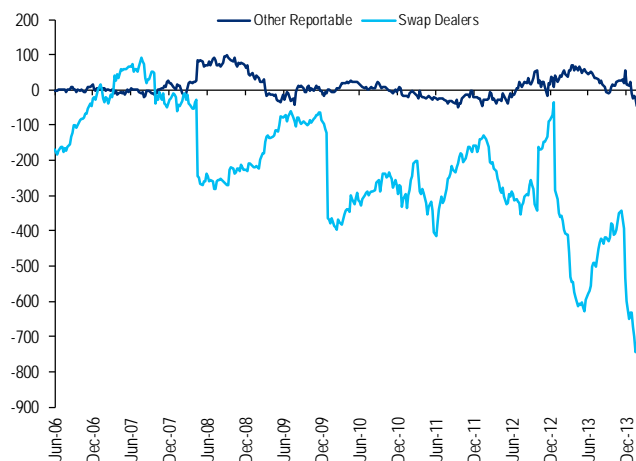
US Natural Gas

Figure 63. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 64. Net Length, 000's of contracts



Source: CFTC, Citi Research

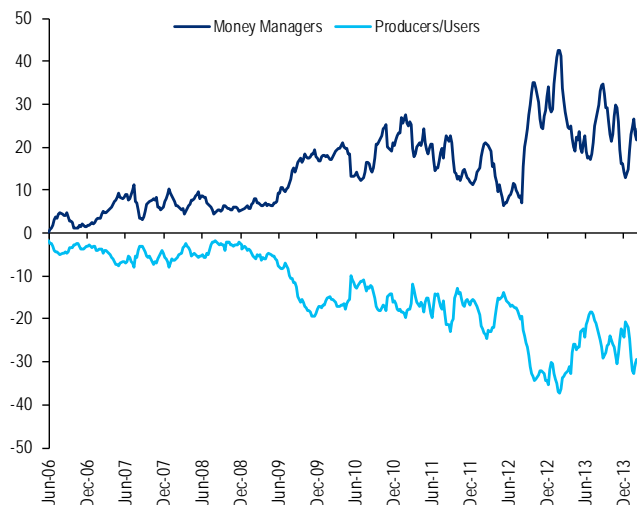
Figure 65. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
NYMEX Natural Gas Futures	335,714	1.9%	33.9%	378,041	2.6%	-1.4%	-42,327	8.3%	-68.1%	452,810	-16.5%	0.0%
ICE NG Swap*	292,439	2.9%	19.3%	21,046	-9.9%	-27.8%	271,393	4.0%	25.6%	393,998	-3.3%	-3.7%
NYMEX NG SWAPS*	236,159	0.5%	49.7%	9,315	-9.8%	-44.1%	226,844	1.0%	60.7%	160,212	-0.9%	-16.8%
NYMEX EUR NG Options	114,841	-17.0%	68.1%	25,393	-20.4%	5.7%	89,448	-16.0%	102.0%	376,383	-36.8%	-16.1%
Natural Gas Total	979,153	-0.8%	35.6%	433,795	-0.1%	-4.3%	545,358	-1.4%	103.0%	1,383,403	-19.0%	-8.0%

Source: CFTC, Citi Research

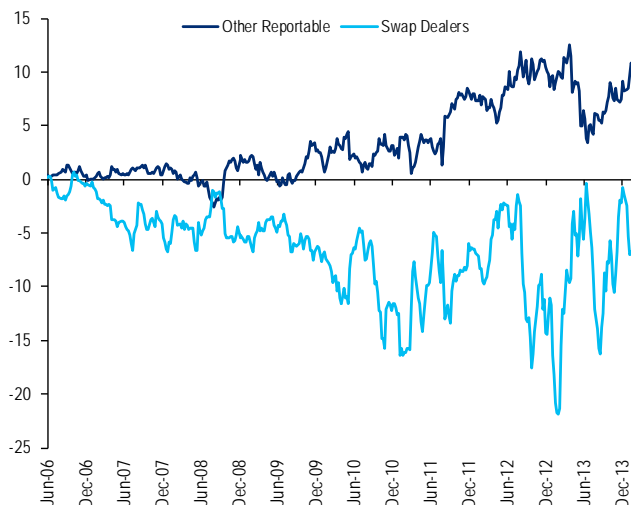
Comex Gold

Figure 66. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 67. Net Length, 000's of contracts



Source: CFTC, Citi Research

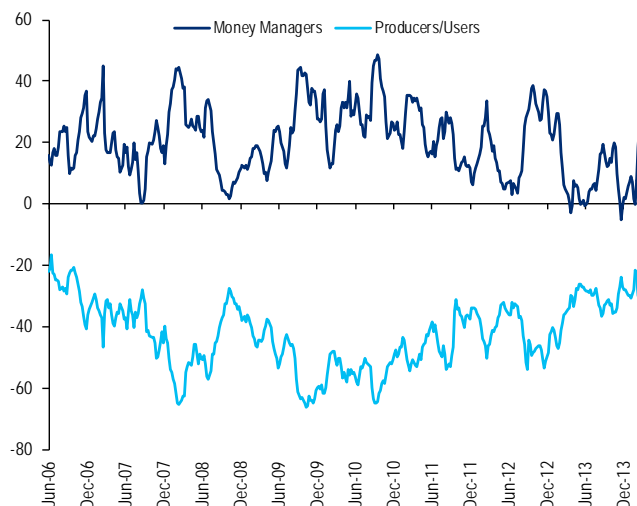
Figure 68. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
Gold	193,674	1.7%	-1.7%	52,359	-26.1%	-37.2%	141,315	18.1%	24.4%	150,442	-7.4%	1.0%

Source: CFTC, Citi Research

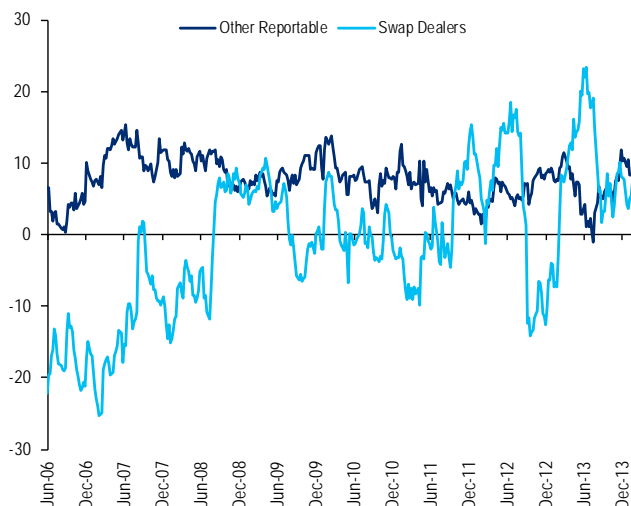
Silver

Figure 69. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 70. Net Length, 000's of contracts



Source: CFTC, Citi Research

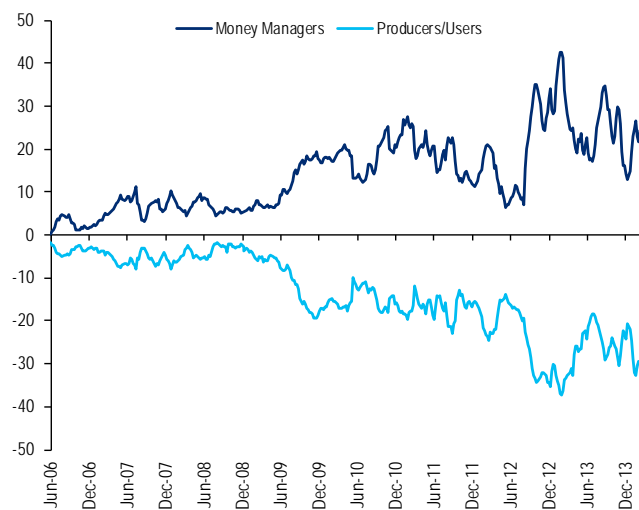
Figure 71. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreadin g	W-o-W (%)	Y-o-Y (%)
Silver	46,067	9.0%	26.5%	15,904	0.2%	4.6%	30,163	14.3%	42.3%	36,016	-17.6%	-28.7%

Source: CFTC, Citi Research

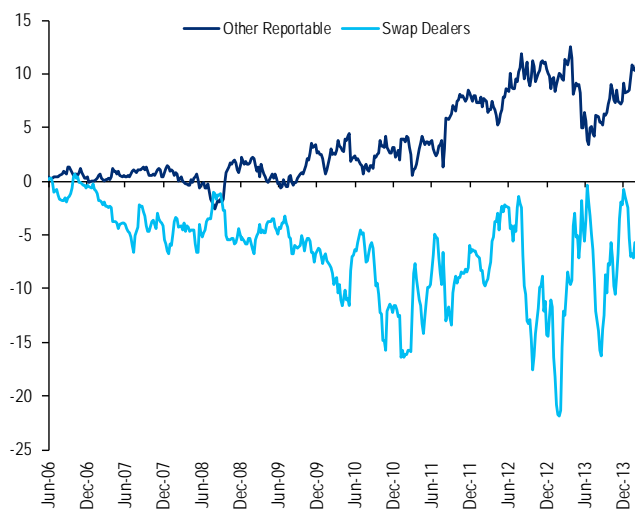
Platinum

Figure 72. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 73. Net Length, 000's of contracts



Source: CFTC, Citi Research

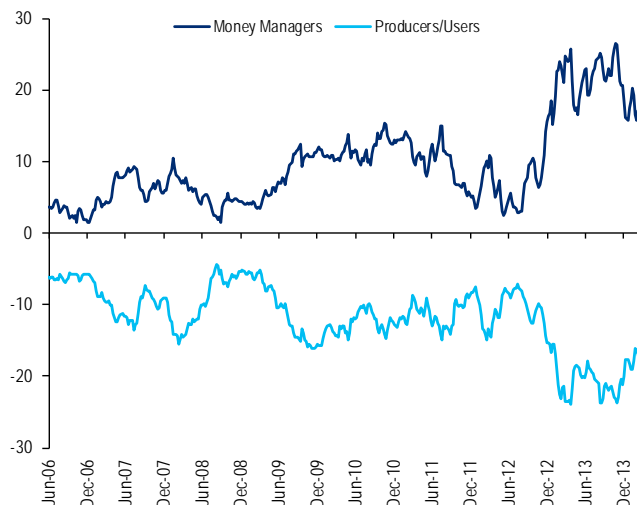
Figure 74. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreadin g	W-o-W (%)	Y-o-Y (%)
Platinum	45,794	4.1%	-0.7%	9,458	-2.4%	224.1%	36,336	5.9%	-15.9%	2,626	-11.2%	-27.5%

Source: CFTC, Citi Research

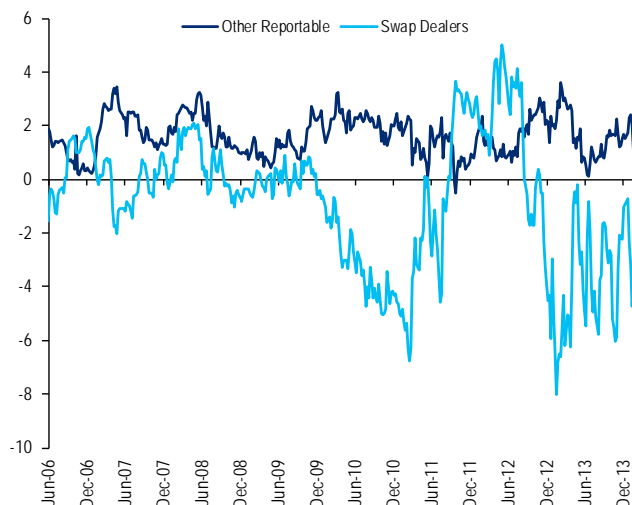
Palladium

Figure 75. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 76. Net Length, 000's of contracts



Source: CFTC, Citi Research

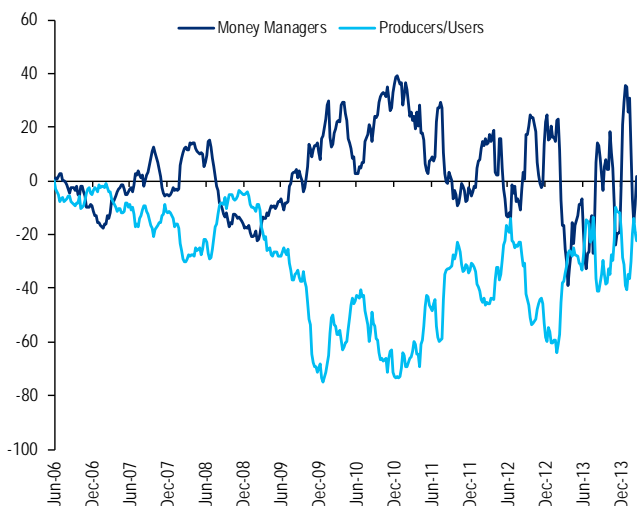
Figure 77. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
Palladium	24,444	-2.6%	-12.4%	5,997	-0.8%	150.2%	18,447	-3.2%	-27.7%	2,098	1.5%	76.6%

Source: CFTC, Citi Research

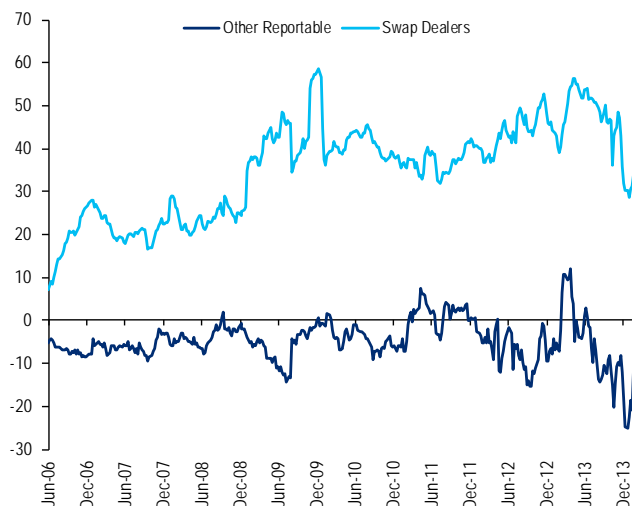
CME Copper

Figure 78. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 79. Net Length, 000's of contracts



Source: CFTC, Citi Research

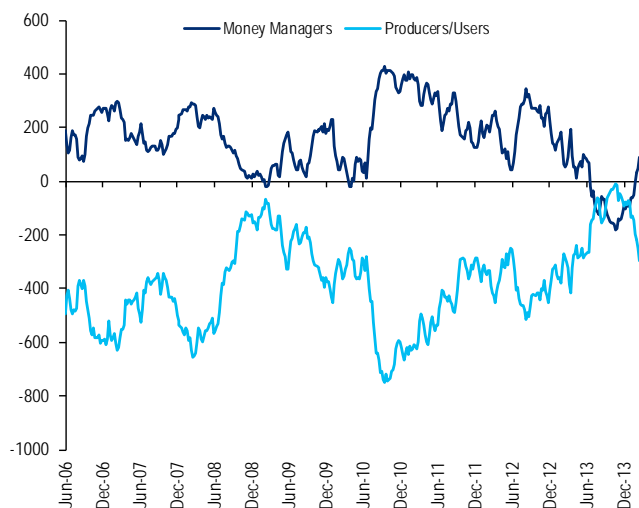
Figure 80. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
Copper	45,042	-0.5%	-3.7%	53,171	-10.1%	11.9%	-8,129	-41.3%	1004.5%	19,221	-29.1%	11.3%

Source: CFTC, Citi Research

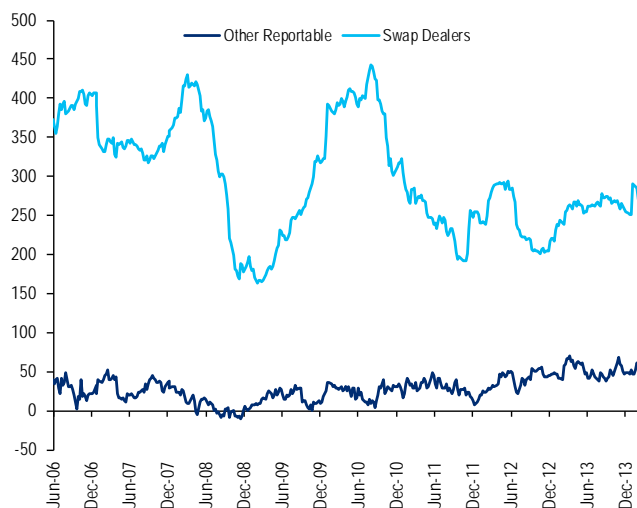
CBOT Corn

Figure 81. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 82. Net Length, 000's of contracts



Source: CFTC, Citi Research

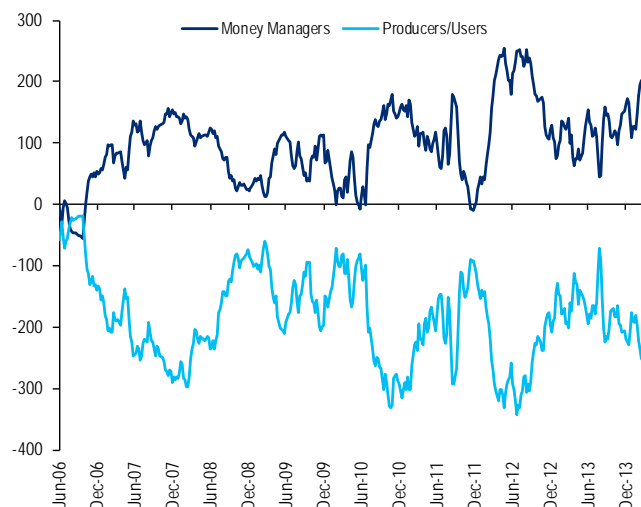
Figure 83. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
Corn CBOT	378,628	6.6%	16.4%	211,575	-14.4%	-1.2%	167,053	54.6%	50.2%	413,259	-15.4%	-6.9%

Source: CFTC, Citi Research

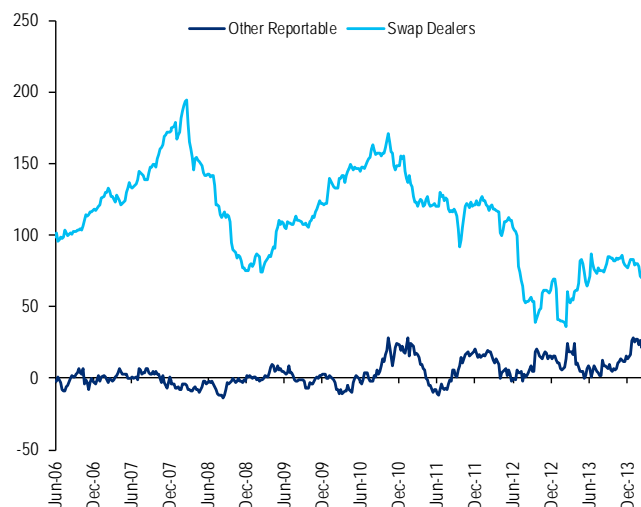
CBOT Soybean

Figure 84. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 85. Net Length, 000's of contracts



Source: CFTC, Citi Research

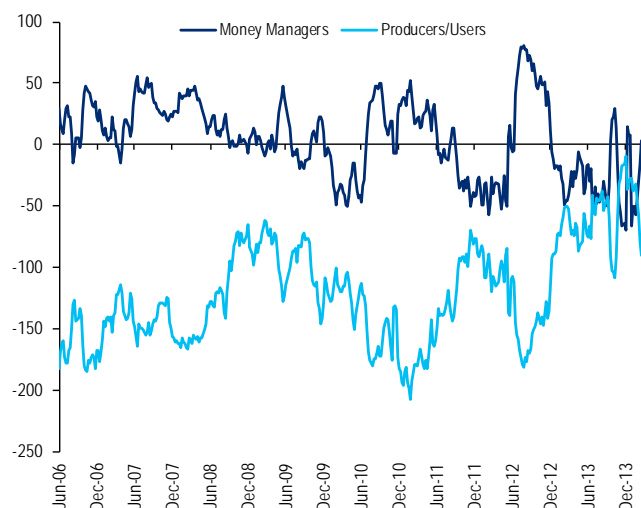
Figure 86. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
Soybean CBOT	284,738	1.5%	46.4%	56,395	-11.5%	19.7%	228,343	5.4%	55.0%	203,722	-12.7%	-19.9%

Source: CFTC, Citi Research

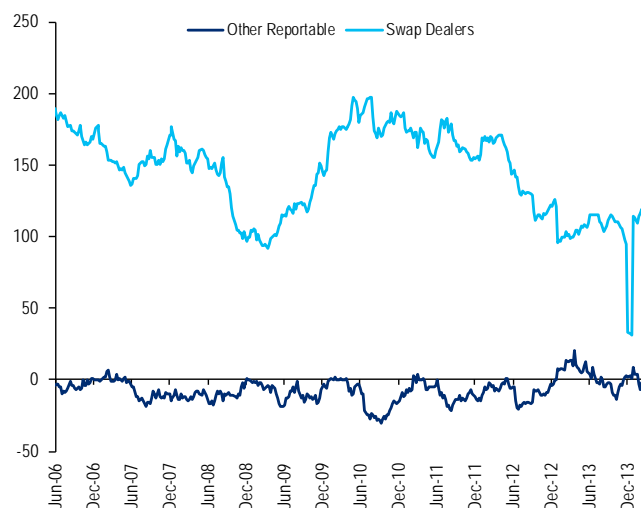
CBOT Wheat

Figure 87. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 88. Net Length, 000's of contracts



Source: CFTC, Citi Research

Figure 89. Commitment of Traders (Futures & Options)

	Long	W-o-W (%)	Y-o-Y (%)	Short	W-o-W (%)	Y-o-Y (%)	Net Long	W-o-W (%)	Y-o-Y (%)	Spreading	W-o-W (%)	Y-o-Y (%)
Wheat CBOT	162,911	-3.8%	51.9%	163,405	-12.9%	16.4%	-494	-97.3%	-98.5%	144,259	-26.0%	-6.3%

Source: CFTC, Citi Research

Appendix A-1

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