

Morgan Stanley & Co. LLC

Hussein Allidina, CFA
Hussein.Allidina@morganstanley.com
+1 212 761 4150

Chris Corda

Tai Liu

Bennett Meier

Morgan Stanley Australia Limited

Peter G Richardson
Peter.Richardson@morganstanley.com
+61 3 9256 8943

Joel B Crane

July 6, 2011

The Commodity Call Not the Time to Abandon Agriculture

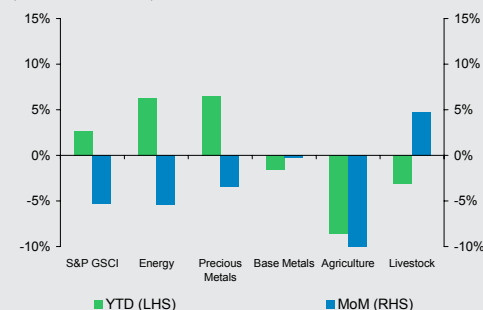
Feature: We see the recent weakness in agriculture prices as a buying opportunity, rather than the start of a cyclical downtrend. We remain skeptical of the USDA's recent planted acreage and quarterly stocks estimates and expect downward revisions to both in future reports. Strong cash basis supports our view that the physical corn market remains very tight. With livestock and ethanol margins positive again, we do not see the market as achieving the kind of demand rationing necessary to prevent further tightening in inventories. Finally, with the export arb to China now open by \$0.22/bu, it is highly likely that recent export sales to "unknown" destinations were made to China — and further sales are likely as China seeks to rebuild strategic reserves.

Summary: The commodities sector underperformed in June owing to heightened risk aversion as well as bearish near-term fundamentals, hurting the energy and agricultural spaces. The S&P GSCI TR Index fell by 5.3% MoM, with agriculture and grains leading the decline, losing 10% and 14.6% MoM, respectively. Energy returns also suffered with the IEA's decision to release strategic reserves pressuring (only briefly) prices; energy fell 5.5% MoM but has since recovered. Sugar was again the best-performing commodity in June, up 18.4% MoM on further Brazilian production concern. Wheat was the worst-performing commodity in the GSCI, down 25.3% MoM.

Outlook: We remain bullish oil, particularly in the 2H, and expect inventory draws will prompt OPEC to increase production, at the expense of spare capacity. Bullish weather notwithstanding, we remain bearish on natural gas prices as robust production and a narrowing of YoY storage deficits in the weeks ahead will likely weigh on prices. We are constructive precious metals — particularly gold. In base metals, we favor copper to nickel. In the grains space, we remain bullish corn and beans, though see wheat prices as likely underperforming.

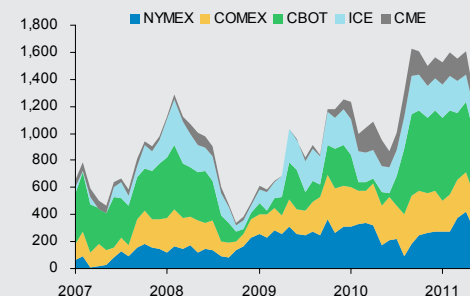
Commodities Declined MoM

(Total Returns, % Δ)



Risk-Aversion in June Took Significant Investor Length Out of the Commodity Market

(Net Spec Length, Lots)



Source for charts: Bloomberg, Morgan Stanley Commodity Research

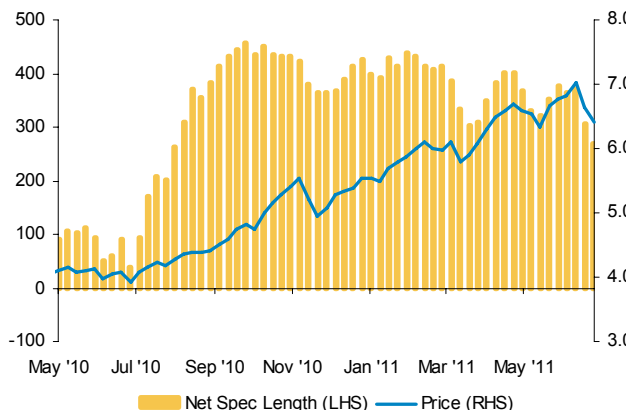
Table of Contents	Page
Feature Article	2-3
Index Performance Table	4
Commodity Snapshot	5
Forecast Table	6
Energy	7
Precious & Base Metals	8-9
Grains & Oilseeds	10
Other Soft Commodities	11
Livestock	12
Appendix 1-2 Index Charts & Price Table	13-14
Appendix 3-5 Forward Curves	15-18

For important disclosures, refer to the Disclosures Section, located at the end of this report.

Not the Time to Abandon Agriculture

Agriculture commodities performed most poorly in June, shedding 10% MoM, pressured by a bearish set of USDA reports. We view the flight from agricultural commodities as premature and remain constructive on the space, particularly from currently depressed levels. We view the current weakness as transient, and see lower prices bolstering demand, further tightening an already-tight balance. Renewed Greek debt concerns, as well as persistent theories of a Chinese hard landing, stoked risk aversion; this also proved negative for the agriculture space. By the end of June, net speculative length in corn (as reported by the CFTC) had fallen to 268,000 lots, the lowest reading since August 2010. Wheat fared little better with speculative participants now net short over 17,000 lots.

Exhibit 1
Corn Net Spec Length at its Lowest since Aug 2010
(LHS: '000 lots; RHS: \$/bu)

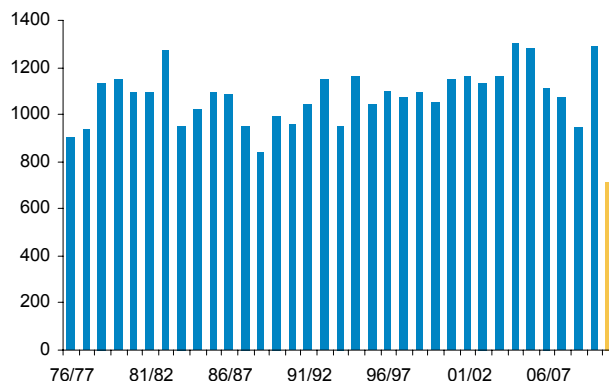


Source: CFTC, Bloomberg, CBOT, Morgan Stanley Commodity Research

On June 30th the USDA's release of bearish Acreage and Grain Stocks Reports surprised market participants. In their acreage report, the USDA lifted its estimate of corn planted area to 92.3 mln acres, up from 90.7 mln acres in the June WASDE and higher than the consensus expectation of 90.6 mln acres. Even more surprising was the USDA's June 1 corn stock estimate of 3.67 bln bu, which registered 380 mln bu higher than consensus estimates, and implies a reduction in March–May feed demand of 44% YoY. Bearish soybean and wheat inventory data also weighed on those markets despite lower planted area estimates.

Exhibit 2
USDA Reporting Lowest March-May Feed and Residual Demand in 30+ Years

(US Mar – May Feed And Residual Demand, mln bu)



Source: USDA, Morgan Stanley Commodity Research estimates

We are skeptical and question the accuracy of the USDA's estimates. As discussed in our note, [Mixed USDA Reports Leave Many Questions \(June 30, 2011\)](#), the USDA's acreage survey was conducted in the first two weeks of June, before a significant portion of the crops were planted in the northern and eastern corn belt. In particular, North Dakota total planted area was lowered by only 2.3 mln acres from the March Prospective Plantings report, despite recent data from the USDA's own Farm Service Agency, which showed initial prevented planting claims nearing 6.3 mln acres. We also question the USDA's corn stocks number, which implies the lowest March–May feed and residual demand in over 30 years. While we appreciate that increased wheat and DDGS feeding into livestock rations, we struggle to explain the nearly 530 mln bu YoY reduction, particularly with hog and cattle on feed inventories both higher YoY.

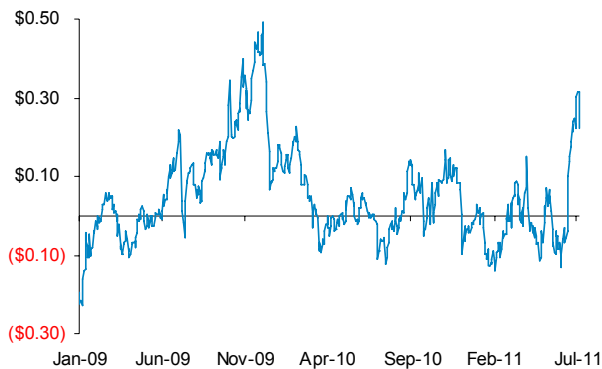
The physical markets appear to corroborate our skepticism. Cash corn prices were largely immune to the downturn in the futures markets that followed the release of the USDA reports, with many locations seeing basis vs. the CBOT widen to levels not seen in 5+ years. We continue to hear anecdotal reports of consumers — particularly destination ethanol plants — struggling to secure feedstock for delivery in August. This strikes us as incongruous, given the USDA's contention of seemingly adequate stocks.

At current prices, demand is not being rationed to the extent envisioned in earlier USDA projections. Recent weakness in futures prices has again revived ethanol and livestock margins, reducing the incentive to ration demand. On

paper, the ethanol industry is seeing the best production margins since December of 2009; currently sitting at \$0.22/gal. Similarly, hog production margins are again above breakeven, sitting at \$22.70/head, which, if sustained, will temper the incentive to reduce herd size, ultimately constructive for corn, wheat and soymeal demand.

Exhibit 3
Ethanol Production Margins Rebounding

(Ethanol Production Margins, \$/gal)

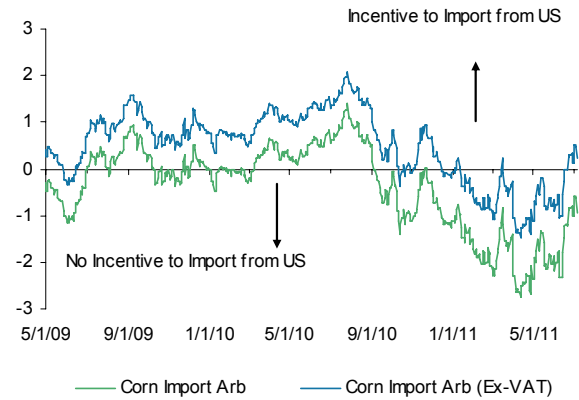


Source: Bloomberg, CBOT, NYMEX, Morgan Stanley Commodity Research estimates

The export arb to China has opened, leaving the potential for significant upside to corn export demand. The fall in US prices has opened the door for China to import; ex-VAT, US corn delivered to the south of China is currently \$0.22/bu cheaper than domestic spot corn. On Friday, the USDA indicated that 1.14 mln MT of corn was sold to an “unknown” buyer. In the past, anonymous purchases of this volume have often come from China (see [Agriculture Comment: China Likely Buyer of US Corn; Mar 25, 2011](#)). Given an admitted 10 mln MT deficit between production and demand in China this year, we do not rule out the possibility of further Chinese purchases (beyond this possible indication) to rebuild government strategic reserves.

Exhibit 4
Arb to China Open

(\$/bu)



Source: CBOT, USDA, JCI, Bloomberg, Morgan Stanley Commodity Research estimates

Excess rainfall and flooding in the northern and eastern corn belt remain a threat to 2011/12 production. While weather in the corn belt has turned more benign in recent weeks, excess rains earlier in the season led to flooding and standing water in fields, the full impact of which is almost certainly not accounted for in the USDA’s assumption of a 92.0% harvested/planted ratio (compared to last year’s 92.4%). Additionally, excess early-season moisture has raised the risk of nitrogen leaching and shallow roots, both likely to threaten yield potential.

The USDA’s next WASDE report, to be released July 12th, will incorporate the June 30th acreage data. However, we expect the August report will paint a more bullish picture, incorporating resurveyed acreage data from Minnesota, Montana, North Dakota, and South Dakota. Additionally, we see the potential for a bullish correction in the September Quarterly Stocks report, owing to the tightness currently indicated in the cash markets as well as the limited potential for inclusion of early-harvested new crop corn.

INDEX PERFORMANCE TABLE

As of 30-Jun-11	% in GSCI	Total Return	Month	QTD	YTD	Dec00(1) to Dec10	Roll Yield L12M	
Commodities	S&P GSCI TR	100%	5,077	-5.3%	-7.9%	2.7%	1.8%	-6.7%
	Back Bsk S&P GSCI TR (2)	N/A	134	-3.1%	-6.7%	2.9%	9.5%	-4.8%
	GSCI Pre Roll Alpha (4)	N/A	5,440	-0.1%	-0.2%	0.0%	2.0%	N/A
	DJUBS TR	N/A	318	-5.0%	-6.7%	-2.6%	5.8%	-6.9%
	Back Bsk DJUBS TR (3)	N/A	217	-1.1%	-5.0%	-0.9%	14.6%	-2.4%
	DJUBS Pre Roll Alpha (4)	N/A	343	-0.1%	-0.1%	0.3%	1.5%	N/A
	GSCI Light Energy TR	N/A	3,653	-5.1%	-8.0%	-0.9%	3.2%	-5.1%
Equities/Bonds	US S&P 500 TR	N/A	2,242	-1.7%	0.1%	6.0%	1.4%	N/A
	UK FTSE 100 TR	N/A	3,959	-0.4%	1.6%	2.7%	2.9%	N/A
	MSCI World TR	N/A	573	-1.5%	0.4%	5.0%	3.7%	N/A
	MSCI Europe TR	N/A	7,004	-1.9%	2.8%	9.6%	3.8%	N/A
	MSCI EM TR	N/A	441	-1.5%	-1.1%	0.9%	15.9%	N/A
	MSCI EM Asia Pac ex. Japan TR	N/A	267	-2.3%	-1.8%	-0.7%	10.4%	N/A
	Iboxx 7-10 Yr Treas TR	N/A	205	-0.4%	3.8%	3.7%	6.2%	N/A
Commodity Sectors	Energy	69.3%	1,101	-5.5%	-7.9%	6.3%	0.4%	-8.4%
	Non Energy	30.7%	2,798	-5.0%	-8.1%	-4.6%	4.7%	-3.3%
	Grains	10.1%	449	-14.6%	-13.3%	-12.2%	0.2%	-9.4%
	Agriculture	15.0%	755	-10.0%	-12.1%	-8.6%	0.7%	-1.9%
	Livestock	4.4%	2,192	4.7%	-9.8%	-3.1%	-3.9%	-13.8%
	Base Metals	8.0%	1,962	-0.3%	-2.9%	-1.6%	12.8%	-1.8%
	Prec. Metals	3.3%	2,039	-3.4%	2.1%	6.5%	17.4%	-0.8%
Individual Commodities	WTI Crude	32.5%	1,432	-7.6%	-12.1%	-3.4%	4.4%	-12.0%
	Brent Crude	16.7%	1,098	-3.0%	-2.9%	19.8%	12.1%	-1.8%
	Natural Gas	3.0%	1.32	-6.8%	-3.9%	-6.6%	-36.8%	-24.1%
	GasOil	6.9%	945	-4.0%	-6.8%	18.8%	11.3%	-4.9%
	Heating Oil	5.1%	1,448	-3.9%	-6.5%	13.8%	5.9%	-7.4%
	Unleaded Gasoline	5.1%	3,770	-2.1%	-0.4%	19.8%	11.6%	2.7%
	Aluminum	2.5%	100	-5.8%	-5.3%	0.3%	2.5%	-4.0%
	Copper	3.7%	5,704	2.3%	-0.1%	-2.2%	23.1%	-0.3%
	Nickel	0.7%	646	-0.8%	-10.3%	-5.5%	18.6%	-0.6%
	Zinc	0.6%	133	4.0%	-0.7%	-5.3%	5.8%	-4.0%
	Lead	0.5%	491	6.3%	-0.8%	6.5%	20.4%	-0.9%
	Gold	2.8%	830	-2.2%	4.3%	5.4%	17.1%	-0.8%
	Silver	0.5%	1,285	-9.1%	-8.2%	12.4%	19.9%	-0.8%
	Corn	4.3%	162	-10.0%	-3.7%	4.5%	-5.2%	-4.7%
	Wheat	2.7%	190	-25.3%	-26.7%	-32.0%	-3.8%	-20.2%
	Soybeans	2.4%	3,860	-5.5%	-8.5%	-8.8%	14.3%	-2.7%
	Sugar	2.1%	282	18.4%	5.8%	-5.0%	7.6%	20.4%
	Cotton	1.5%	433	-15.9%	-28.3%	0.8%	-6.3%	27.3%
	Kansas Wheat	0.7%	74	-23.7%	-24.6%	-20.4%	2.4%	-8.1%
	Coffee	1.1%	193	-0.8%	-1.7%	7.1%	-1.6%	-5.2%
	Cocoa	0.3%	43	5.5%	6.9%	3.8%	13.5%	-2.1%
Live Cattle	2.4%	3,753	5.2%	-9.7%	-3.3%	-0.5%	-12.8%	
Feeder Cattle	0.4%	146	11.0%	-3.2%	5.9%	N/A	-7.7%	
Lean Hogs	1.5%	212	2.3%	-11.7%	-5.1%	-12.2%	-17.3%	

(1) Annualised, (2) Calculated on basis of annual January reset to S&P GSCI weights, (3) Calculated on basis of annual Jan reset to DJUBS weights, (4) Pre Roll applied Feb-Dec
Source: Bloomberg, Morgan Stanley Commodity Research QTD: since Mar 31, 2011 YTD: since Dec 31, 2010

COMMODITY SNAPSHOT

Commodity	Bearish	Neutral	Bullish	Rationale
Corn				<ul style="list-style-type: none"> Record tight US inventories with little prospect for improvement in 2011/12. Higher oil prices make ethanol demand harder to ration. Cold, wet weather in US delayed planting, threatening '11 acreage.
Copper				<ul style="list-style-type: none"> Continued global recovery supports demand growth. China entering into an H2 restocking phase. Global mine production persistently constrained.
Crude Oil				<ul style="list-style-type: none"> Despite near-term weakness owing to the IEA's announcement of releasing 60 mmb of strategic reserve, we remain constructive in the medium term. We continue to see pronounced draws in 2H11 and still expect OPEC to increase production and, in turn, lower spare capacity, which is constructive for flat price.
Gold				<ul style="list-style-type: none"> Concerns regarding inflation driving investment demand. EU sovereign debt issues also supportive. Declining official sector sales tightening market.
Aluminum				<ul style="list-style-type: none"> Market likely to be in surplus until 2012, with strong demand not eliminating effects of excess capacity. Physically backed ETFs still likely in 2011. China to be a net importer in 2011 and 2012.
Wheat				<ul style="list-style-type: none"> Comparatively full US balance. Cold, wet weather threatens US and Canadian spring wheat crops. Worst US winter wheat crop conditions since 2006.
Soybeans				<ul style="list-style-type: none"> Biodiesel demand for soy oil ramping up. Rain threatening Brazilian harvest/quality. Slowing Chinese demand presents bearish risk.
Nickel				<ul style="list-style-type: none"> Stainless steel production growth strong and laterite projects likely struggle to meet ramp-up timetables, but: Nickel pig iron production (primary nickel substitute) in China much higher than previously expected.
Cotton				<ul style="list-style-type: none"> DM textile demand improving, though China demand slowing. Supply response, owing to record high prices, likely by year-end. Dry weather in Texas presents a bullish risk.
Sugar				<ul style="list-style-type: none"> Thai production surprising to the upside. Poor sucrose content and agriculture yields continue to slow C/S Brazilian sugar production. Still see production surplus in 2011/12.
Feeder Cattle				<ul style="list-style-type: none"> Weakening feeding margins likely to temper demand for feeder cattle in coming months. Poor pasture conditions continue to present headwinds to calf production.
Lean Hogs				<ul style="list-style-type: none"> Weakening US retail demand growth prospects in 2011. South Korean FMD culls increasing demand for US exports.
Zinc				<ul style="list-style-type: none"> Chinese mine and smelter capacity has responded quickly to improved demand from galvanized steel. Stock-to-consumption ratio still rising so far in 2011.
Live Cattle				<ul style="list-style-type: none"> Korean FMD-related culls and radiation contamination concerns in Japan boosting demand for US beef exports. Larger feedlot inventories YoY suggest greater supply. Weak US beef demand driving buildup in cold storage inventories.
Natural Gas				<ul style="list-style-type: none"> Drilling remains elevated despite low gas prices. Substantial backlog of uncompleted wells. Expecting the YoY storage deficit to ease in the months ahead.

MORGAN STANLEY FORECASTS AND FORWARD CURVES

Average Year Price		As of 26-June-11		
Energy				
		2011	2012	
Crude Oil (Brent)	US\$/bbl	120	130	
<i>forward curve</i>		108	106	
<i>Bull case</i>		140	140	
<i>Bear case</i>		80	70	
Natural Gas	US\$/mmBtu	4.00	N.A.	
<i>forward curve</i>		4.37	4.77	
Base Metals				
		2011	2012	2013
Aluminum	US\$/tonne	2,600	2,700	2,900
<i>forward curve</i>		2,533	2,562	2,666
Copper	US\$/tonne	9,800	10,100	8,400
<i>forward curve</i>		9,226	9,001	8,496
Nickel	US\$/tonne	27,000	25,500	23,800
<i>forward curve</i>		23,866	22,090	21,547
Zinc	US\$/tonne	2,400	2,500	2,500
<i>forward curve</i>		2,294	2,298	2,313
Precious Metals				
		2011	2012	2013
Gold	US\$/oz	1,401	1,330	1,250
<i>forward curve</i>		1,475	1,509	1,565
Silver	US\$/oz	31	28	25
<i>forward curve</i>		35	35	34
Platinum	US\$/oz	1,747	1,915	
<i>forward curve</i>		1,736	1,687	
Softs **				
		2010/11	2011/12	2012/13
Cotton	US¢/lb	143	100	80
<i>forward curve</i>		146	114	100
Sugar	US¢/lb	26	22	19
<i>forward curve</i>		27	25	23
Coffee	US¢/lb	N.A.	N.A.	
<i>forward curve</i>		246	258	
Grains **				
		2010/11	2011/12	2012/13
Corn	US\$/bu	6.75	7.25	6.00
<i>forward curve</i>		6.41	6.42	6.01
Soybean	US\$/bu	13.25	14.50	13.50
<i>forward curve</i>		13.04	13.21	13.02
Wheat	US\$/bu	7.00	8.50	8.00
<i>forward curve</i>		7.03	7.08	7.95
Livestock				
		2011	2012	
Live Cattle	US¢/lb	N.A.	N.A.	
<i>forward curve</i>		115	122	
Feeder Cattle	US¢/lb	N.A.	N.A.	
<i>forward curve</i>		134	138	
Lean Hogs	US¢/lb	N.A.	N.A.	
<i>forward curve</i>		90	89	

* Year-End Price

** Agriculture commodities are in US marketing years: wheat (Jun-May), cotton (Aug-Jul), corn & soybeans (Sep-Aug), sugar & coffee (Oct-Sep)

Source: Bloomberg, Morgan Stanley Commodity Research estimates

ENERGY

Crude Oil

- Crude oil prices fell in Jun, with Brent and WTI finishing lower by 3.6% and 7.1%, respectively, as the IEA's decision to release 60 mmb of strategic reserves along with heightened risk aversion — owing to Greek sovereign debt concerns — weighed on prices.
- In the US, crude stocks drew by 14.3 mmb/d in Jun (well above the normal 5Y average draw of 3.8 mmb) owing to a combination of higher refinery utilization and lower crude imports. We see runs remaining elevated in Jul as product balances stay tight. The release of up to 30 mln bbl of crude from the US SPR should keep refinery feedstock prices tempered, particularly in the USGC.
- Flat price and structure, especially for light sweet crudes (i.e., LLS and Brent) could be pressured in the coming weeks owing to the availability of 30 mmb of light sweet crude from the US SPR and additional volumes from OECD Europe/Asia. In addition, Nexen's Buzzard field is expected to return to full production at the end of the month, adding more supply. In the medium term however, we remain constructive on crude fundamentals and still see a need for increased OPEC production in 2H11 to avoid material inventory draws.

Products

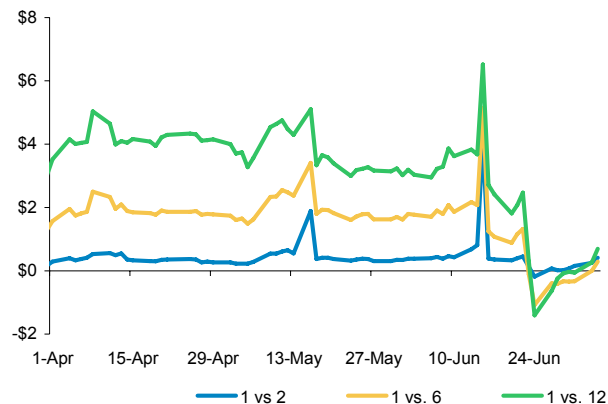
- NYMEX product cracks were strong in Jun, with both gasoline and heating cracks expiring higher, up 7.6% and 9.2% MoM. Total product inventories in the US built by 18 mmb (vs. a 5Y avg build of 15.6 mmb), despite lower US product imports in Jun, as weak end-user demand, down 3.2% YoY at 19.6 mmb/d (4wma), combined with increased crude runs. Product balances remain snug, with total stocks 2.1 mmb below the 5Y average and 32 mmb lower YoY.
- Demand in the EM remains firm. Recent Chinese data showed demand in Apr higher by 787 kb/d or 9.1% YoY to 9.5 mmb/d while Indian demand rose 148 kb/d or 4.6% to a record high.
- Despite tighter balances in the US, we expect margins to come off recent highs owing to increased refinery utilization; refiners are expected to continue building product inventories for the summer driving season. PADD II margins however should remain strong owing to weak WTI differentials.

Natural Gas

- NG ended the month at \$4.37/mmBtu, losing 6.3% MoM, despite having traded as high as \$4.98/mmBtu in early Jun as a heat wave engulfed the US. The first two weeks of Jun were 29% warmer than NOAA's 30-Yr normal. We estimate end-Jun inventory at 2,538 bcf. Despite a very warm Jun, the YoY inventory deficit narrowed from end-May's 245 bcf to 203 bcf at end-Jun.
- Production remains robust. The EIA's latest monthly report pegs Apr dry gas production at 62.9 bcf/d, a YoY increase of 4 bcf/d. Drilling activities remain sticky. According to Smith Bits, an average of 769 rigs were drilling for gas in Jun, a slight MoM decline of 16.
- We have reconfigured our weather assumptions from a 30-Yr NOAA normal to a 10-Yr normal. On average, weather in recent years has resembled 10-Yr normal more than the 30-Yr normal. We now model end-Oct inventory at ~3.7 tcf (down from our previous estimate of 3.8 tcf). Still, barring any storm-related supply disruptions, we see gas as trading nearer to \$4/mmBtu than \$5/mmBtu for the remainder of summer.

Brent Curve Structure Weakened after IEA's Announcement

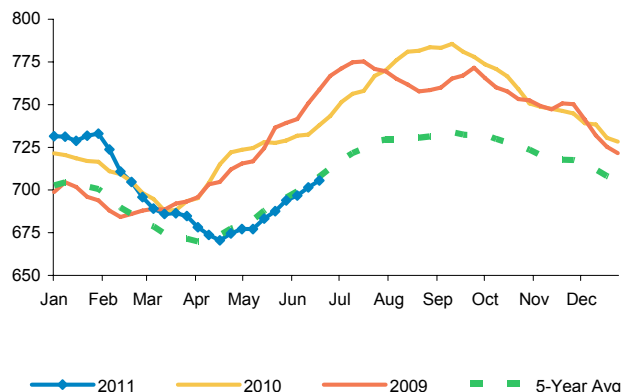
(Brent timespreads, \$/bbl)



Source: Bloomberg, Morgan Stanley Commodity Research

US Product Balances Much Tighter YoY

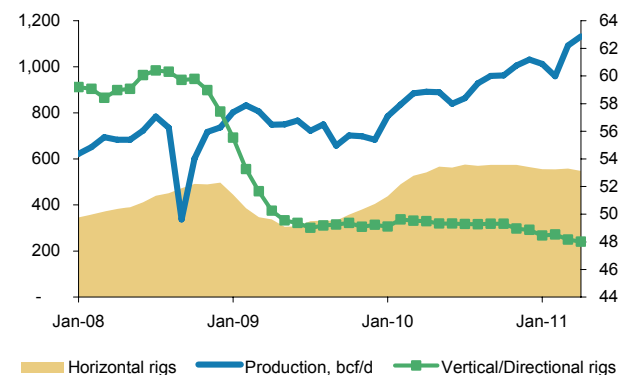
(US product inventories, mmb)



Source: EIA, Morgan Stanley Commodity Research

US Gas Production Continue to March Higher

(left-axis: rig counts; right-axis: US dry gas production, bcf/d)



Source: EIA, Smith Bits Stats, Morgan Stanley Commodity Research

METALS: Precious & Base

Gold and Silver

- Gold prices flirted with record highs mid-month, but saw a quick and sharp retracement following the passage of austerity measures in Greece.
- The much stronger than anticipated US ISM figure helped alleviate some US growth concerns. Risks to a China hard-landing scenario following Premier Wen's comments also appear to be dissipating from sentiment – for now.
- Near term, the Euro's recent recovery and sub-US\$1,500/oz prices could help generate bargain hunting among some investors. Further out on the horizon, Morgan Stanley economists believe medium-term risks to global inflation are to the upside, which should be favorable to gold.
- While we believe silver could continue to outperform other precious metals, we are concerned about persistent levels of volatility and damage to technical indicators and sentiment. Consequently, we maintain our preference for gold in the short term.

Platinum and Palladium

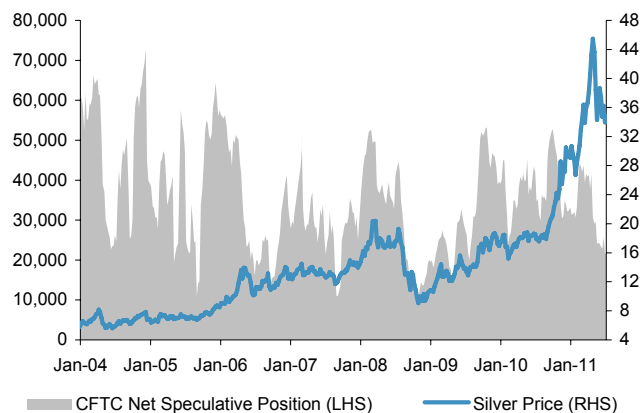
- Prices struggled most of the month before receiving a boost from the surprise IEA reserve oil release and a general improvement in market sentiment over the health of the global economy.
- We see evidence of robust physical demand for both platinum and palladium, particularly in China as buying increased sharply on the back of weaker prices throughout most of 2Q11.
- Platinum had outperformed palladium through Apr, but the latter has caught up recently as a result of underlying perceptions of its fundamental demand strength.
- This dynamic has been reflected in CFTC non-commercial net long positions, with palladium in Jun reversing the significant liquidation trend evident since the end of Q1.

Copper

- After trading in a well-defined range the previous 7 weeks, copper prices broke out in the final week of the month.
- In our view, a number of factors have aligned that will support copper prices in the coming months. Most influential will be the re-emergence of Chinese imports of refined copper, a call supported by the recent declining trend in the LME's Asia warehouses and recent increases to SHFE copper inventories as domestic consumers source outside metal.
- Second, in Jun, LME copper stocks reversed a 6-month rising trend following a sharp pick-up in cancelled warrants. The ratio of cancelled tonnage in the system rose from 4.3 at the beginning of the month to 7.8 by the third week, the highest level since Jan. While the ratio has recently seen a moderation, current levels still suggest there is more outflow to come.

Silver Net Positions Have Suffered During the Sell-Off

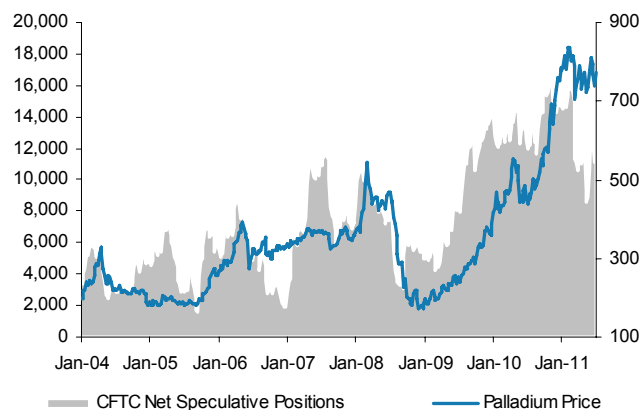
(left-axis: net speculative length; right-axis: silver price, US\$/oz)



Source: Bloomberg, CFTC, Morgan Stanley Commodity Research

Palladium: NYMEX Liquidation Continues

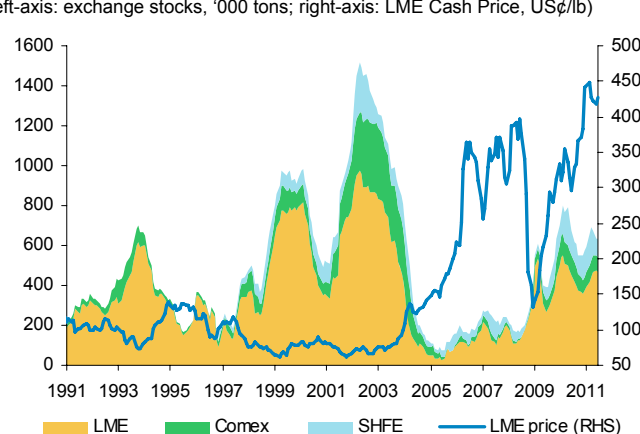
(left-axis: net speculative length; right-axis: price, \$/oz)



Source: CFTC, Bloomberg, Morgan Stanley Commodity Research

Copper Exchange Inventories vs. Price

(left-axis: exchange stocks, '000 tons; right-axis: LME Cash Price, US\$/lb)



Source: Thomson Reuters, Morgan Stanley Commodity Research

METALS: Precious & Base (Cont.)

Aluminum

- Despite the 5.4% MoM price decline in Jun, aluminum has outperformed the rest of the LME complex, a seemingly perplexing outcome given the global aluminum market remains in structural oversupply. However, it's the lack of near-term availability that has kept market conditions tight as reflected by regional premia.
- The ongoing effects of inventory financing deals in Europe and the recent increase in warehouse delivery times in LME warehouses in the US remain the primary cause of the tight market and we don't expect conditions to change until US and European interest rates rise meaningfully, which will bite into yields on the financing deals.
- Similar to copper, cancelled warrants remain well above normal averages, a sign metal availability could remain constrained in the coming months.

Nickel

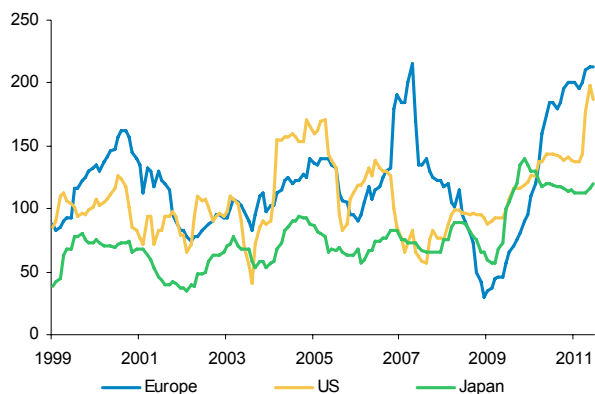
- Nickel has rapidly assumed the position of the worst performing metal on the LME, a perplexing situation given that the majority of supply/demand fundamentals that have supported nickel's relative outperformance since the beginning of 2010 remain largely intact.
- We have concluded the nickel market is suffering from the effects of greater than anticipated levels of substitution from nickel pig iron (NPI) production in China. We believe in the medium-term, NPI will fill gaps left by the miners and refiners. As a result, NPI production will cap any sustainable or significant price gains that might otherwise have arisen from insufficient traditional supply sources.
- In our view, there are three factors that could reverse the negative pricing influence of growing NPI use: 1) Beijing enforced closure of NPI capacity; 2) Jakarta enforcing a ban on low quality nickel ore exports in 2014; and 3) a significant supply shock, namely delays in big greenfield projects due to come online this year and next.

Lead and Zinc

- Zinc and lead prices saw improvement this month, most likely on the back of copper market strength given monthly data released in Jun signaled further deterioration in both market balances following lower consumption growth in the first four months of the year
- However, we believe 2H11 will present a more positive environment for a number of materials, including lead and zinc.
- According to Japan's top zinc producer, output in the country will fall by at least 9% this year and gaps will be filled through greater imports of refined metal. Higher demand for imports could exacerbate pressure already evident on the zinc market given a large portion of LME zinc stocks are currently wrapped up in financing deals.
- Lead prices have seen relative price outperformance over the past two months following a shift in LME inventory dynamics. Jun saw a massive spike in cancelled warrants, most likely as a result of inventory shifting in the Asian regions as a consequence of China's recent clampdown on its domestic lead battery sector.

Regional Aluminum Premia

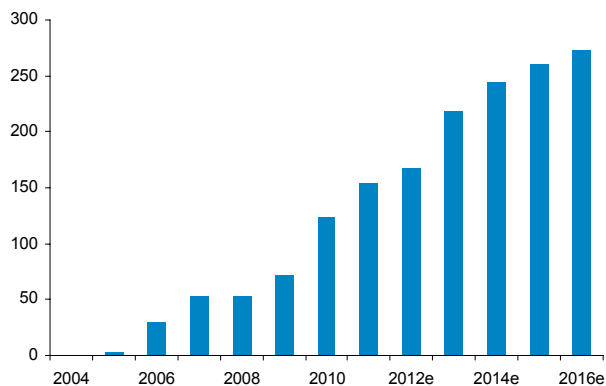
(Prices indexed where Jan 1, 2011 = 100)



Source: CRU, Morgan Stanley Commodity Research estimates

Nickel Pig Iron Production in China Growing

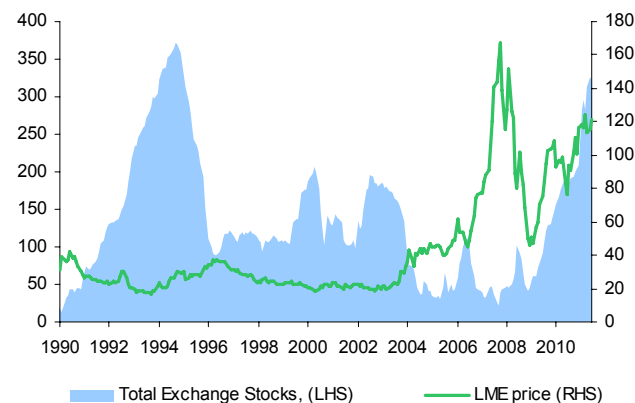
(NPI Production ,kt)



Source: Wood Mackenzie Brook Hunt, Morgan Stanley Research

LME Lead Stocks vs. Price

(left-axis: exchange stocks, kt; right-axis: LME price, US¢/lb)



Source: ILZSG, Morgan Stanley Commodity Research

GRAINS & OILSEEDS

Corn

- Corn prices fell 15.9% in Jun, as the USDA surprised the market with bearish stocks and acreage reports on Jun 30.
- Jun 1 stocks of 3.67 mln bu stood 0.38 mln bu above consensus, implying full-year feed and residual demand just under 5.1 bln bu. The USDA also increased corn harvested area estimates by 1.7 mln acres from the Jun WASDE, implying 11/12 production of 13.47 bln bu.
- We remain bullish corn, as we see the USDA overestimating acreage in the northern US, particularly in North Dakota, while Midwest flooding presents downside risks to harvested area estimates more broadly. We are also skeptical of the USDA's stocks estimates, as both a YoY increase in the US livestock herd and strong interior basis suggest a tighter corn balance. Additionally, the recent corn price weakness will provide another opportunity for consumers to lock in positive ethanol and livestock margins. The USDA announced 1.14 mmt corn sold to an unknown destination, which we believe is China.

Soybeans

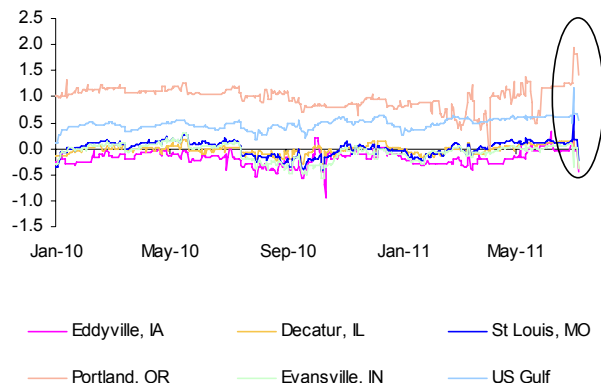
- Soybeans were not spared from the weakness in nearby corn and wheat pits; front-month prices were lower by 5.1% in Jun.
- Crush demand remained weak, with Census data showing May soybean crush at 128 mln bu, though biodiesel produced from soybean oil climbed 7% MoM to 232.7 mln pounds.
- US exports remained sluggish, with the current shipment pace suggesting 10/11 MY exports 40 mln bu lower than the USDA's 1.54 mln bu estimate, owing to slow off-take from China and larger supplies in Brazil and Argentina.
- The USDA pegged US soybean acreage at only 75.2 mln acres, down 2% from the Jun WASDE estimate, as farmers in the western Corn Belt switched land to corn crops owing to far better economics.
- We remain constructive new-crop soybeans, as the USDA's estimate of 75.2 mln planted acres, would leave 11/12 S/U at record-tight levels below 4%.

Wheat

- Wheat prices fell 25.2% in Jun, losing support from the corn pits, with increased availability of Black Sea wheat also weighing on prices.
- The US winter wheat harvest is quickly progressing, with 56% completed through Jul 5. Spring wheat planting in the US and Canada, however, has been hampered by wet weather. Stat Canada revised wheat acreage down by 4.5% from their previous estimates.
- The USDA's Jun 1 stocks data registered higher than consensus estimates at 861 mln bu, implying 10/11 S/U of 35.5%, while the acreage report pegged planted acreage at 56.43 mln acres, well below the USDA's previous estimate of 57.7 mln acres.
- We note that the acreage report appears to underestimate planted acres lost in North Dakota due to wet weather. However, we see upside price risk to be limited, as wheat is likely to remain the most adequately-supplied of the grains next year.

Strong Interior Basis Suggests Corn Balance Still Tight

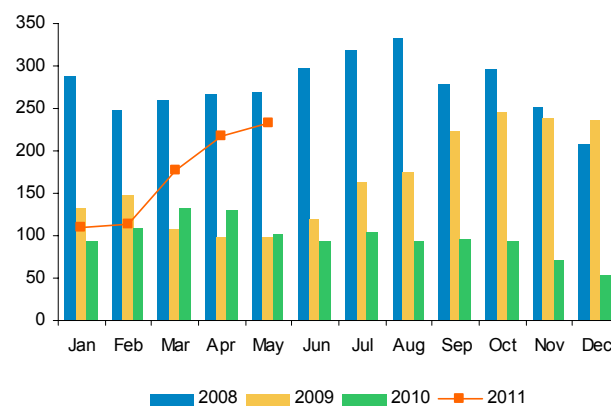
(US corn basis, \$/bu)



Source: Bloomberg, USDA, CBOT, Morgan Stanley Commodity Research

US Biodiesel Production Ramping Up

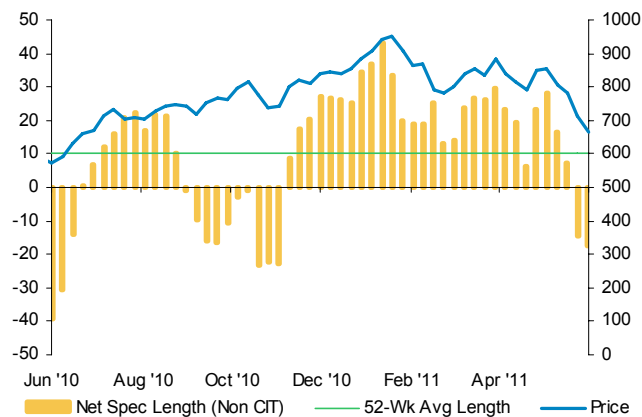
(US Soybean Methyl Esters production, mln lbs)



Source: US Census Bureau, Morgan Stanley Commodity Research

Wheat Net Speculative Length Declining in Jun

(Left-axis: '000 contracts; right-axis: US¢/bushel)



Source: Bloomberg, CBOT, Morgan Stanley Commodity Research

OTHER SOFT COMMODITIES

Cotton

- Cotton prices edged higher by 0.7% MoM in Jun, as renewed production concerns outweighed demand weakness.
- The USDA lifted their estimate of planted acreage by 9% to 13.7 mln acres in their Jun acreage report — bearish at face value. However, though the USDA did not release estimates for harvested acreage, we see as much as 1/3 of Texas's cotton acreage at high risk of abandonment, or at risk of below trend yield, as drought continued to stress the cotton crop (Texas produces 40% of US cotton).
- US mill use slipped to 279 thousand bales in May, down 2% YoY. US export sales and shipments continued to slow, as demand from Asian mills remained weak.
- We remain neutral to bearish on new-crop cotton prices, expecting a global supply response to higher prices (we see India and China expanding acreage by 6% and 8%, respectively) and moderate export demand deferral to offset production risks in the US. Weather remains the largest risk to our call.

Sugar

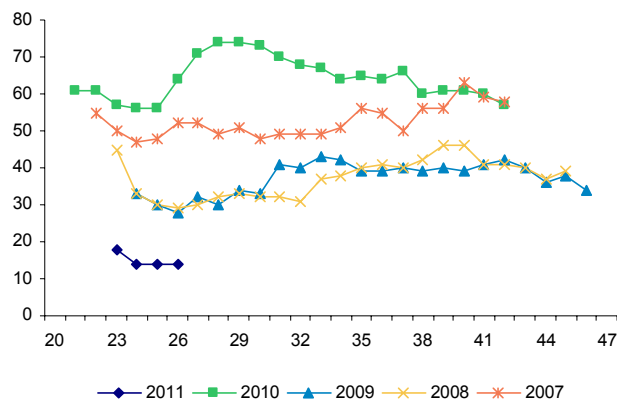
- Sugar prices found new strength in Jun, ending the month up 22.3% MoM, as new fears emerged over Brazilian production.
- Persistently weak crushing data out of C/S Brazil has supported prices as the market begins to price in a full-year cane crush below 540 mln MT (vs. UNICA's current estimate of 560 mln MT and our estimate of 563 mln MT). MYTD through Jun 15th, C/S mills had crushed 134.6 mln MT of cane, down 23% YoY with sugar production down 25% YoY MYTD. Poor cane yields and lower ATR, owing to aging cane, are likely to blame.
- With domestic 10/11 production estimates converging around 24.2 mln MT, the Indian government released another 500K MT of OGL exports, bringing total 10/11 OGL approvals to 1 mln MT.
- While we expect better 2HJun crush data will pressure sugar prices, the magnitude of UNICA's expected downward revision to cane crush estimates will likely determine price direction.

Coffee

- After a volatile month, Arabica coffee prices ended Jun up just 0.3% MoM, as frost in Brazil raised new concern over production prospects in the world's largest Arabica grower.
- A cold front that swept through southern Brazil left frost in coffee-growing regions of southern Parana and Sao Paulo states, though the damage is said to be minor. We note that any frost damage would affect next year's production.
- Despite the frost, net speculative length fell again in Jun to its lowest level since Mar 2009, as macro concerns continued to drive fund rebalancing away from commodities.
- While London Robusta futures fell MoM in Jun, Vietnam and Indonesian premia continue to firm as exportable stocks dwindle.
- With early season Brazilian supply robust (confirmed by a 15% YoY increase in Jun exports), we expect that coffee prices will see pressure over the coming month, barring further frosts.

Texas Cotton Stands a High Risk of Abandonment

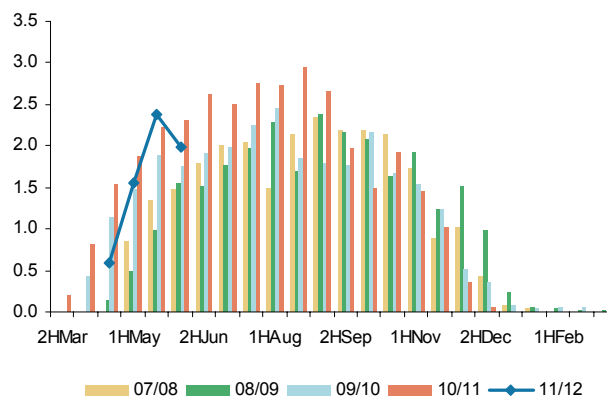
(Texas cotton rated in Good or Excellent condition, %)



Source: USDA, Morgan Stanley Commodity Research

C/S Brazil Sugar Production Fell in 1HJun

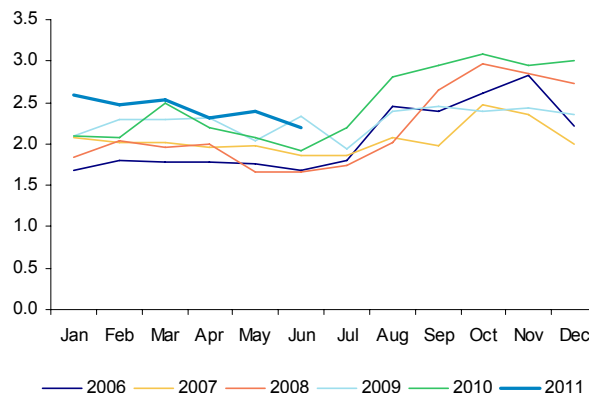
(Bi-Weekly C/S Brazil sugar production, mln mt)



Source: UNICA, Morgan Stanley Commodity Research

Brazilian Coffee Exports up 15% YoY

(Monthly Brazilian coffee exports, mln bags)



Source: Morgan Stanley Commodity Research

LIVESTOCK

Live & Feeder Cattle

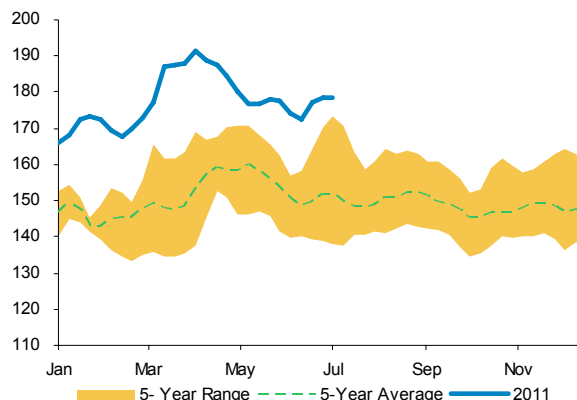
- Live and feeder cattle prices rallied strongly in Jun, up 8.7% and 11% MoM respectively, on indications of strengthening demand.
- US Cattle on Feed inventories on Jun 1 registered their lowest YoY gain of the year, up only 4.1% as marketings (up 7.3% YoY) outpaced placements (down 10.8% YoY).
- Driven by robust cutout values, slaughterhouse demand rebounded in Jun, pushing slaughter rates to their largest YoY increase since Mar in the most recent reported week.
- Lower corn prices in the second half of Jun pushed cattle crush margins back into positive territory again, raising prospects for feeder demand.
- Beef cold storage inventories continued to run above 5-yr seasonal highs, up 25% YoY, though we note that some of this strength may be due to elevated export shipments this year, which generally sit in cold storage for 30 days or more before shipping.
- Weekly export shipments continue to indicate strong international demand for US beef, with shipments up 41% YoY YTD, primarily owing to continued strength in Japanese, Korean, and Mexican demand.
- The USDA will release its next semiannual cattle inventory report on Jul 22; we expect the report will show a further decrease of the calf herd owing to poor production economics in the first half of the year.
- We expect that stronger crush margins, owing to near-term weakness in grain prices, will likely continue to drive feeder cattle demand in Jul, spurring feeder cattle to outperform live cattle.

Lean Hogs

- Lean hog prices rose 4.7% MoM, as a rebound in cutout values prompted an increase in slaughterhouse demand.
- Hog slaughter in the first three weeks of Jun was up 1% YoY, the first sustained YoY increase since Jan.
- Pork cold storage inventories were up 22.2% YoY, though higher exports (up 19.5% YoY in Apr) could be partially responsible for the increase.
- Lower grain prices and rebounding hog prices dramatically improved production margins — we currently model spot margins at \$25/head.
- The USDA's quarterly Hogs and Pigs report indicated the entire hog herd increased 0.5% YoY, though the breeding herd grew by only 0.3%. The report also showed Jun – Aug farrowing intentions down 2.6% YoY, lower than industry expectations. While this is a long-term bullish signal, we expect that recent higher production margins may have changed this dynamic.

Beef Cutout Values Rebounding

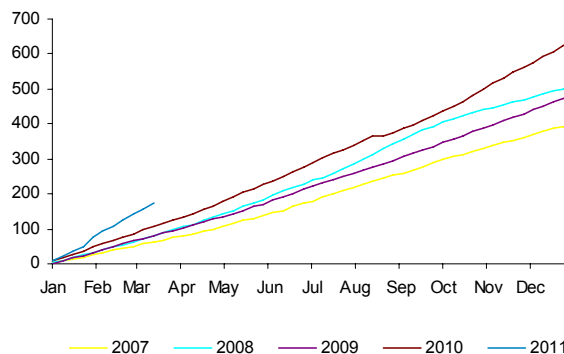
(Boxed beef cutout values, USD/cwt)



Source: USDA, Bloomberg, Morgan Stanley Commodity Research

Driven by Continued Strength in Export Demand

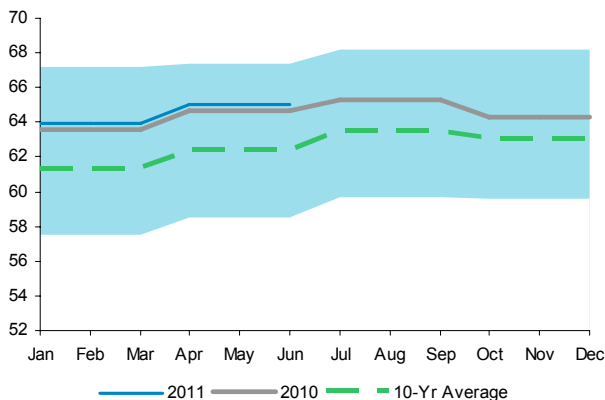
(Cumulative beef export shipments, '000 MT)



Source: USDA, Morgan Stanley Commodity Research

June 1 Hogs and Pigs Inventories up Slightly YoY

(Hogs and pigs total inventory, mln heads)

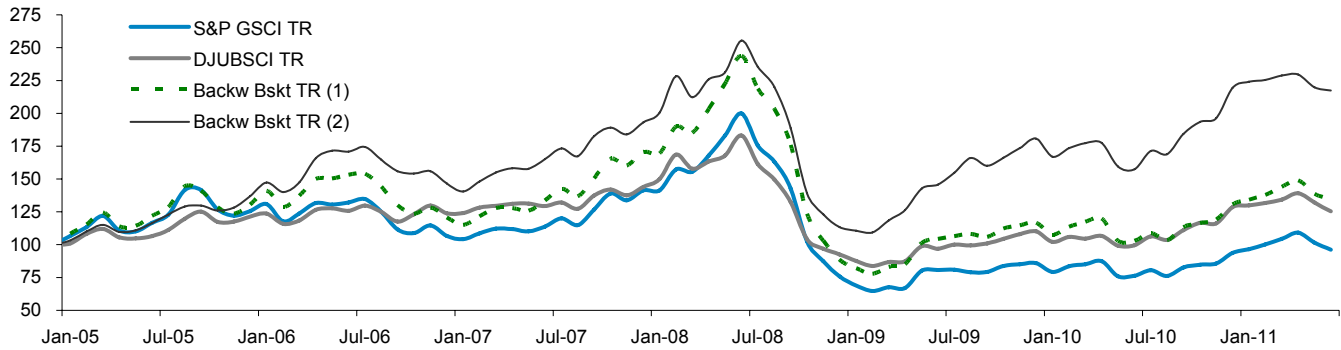


Source: USDA, Morgan Stanley Commodity Research

APPENDIX 1: Index Performance

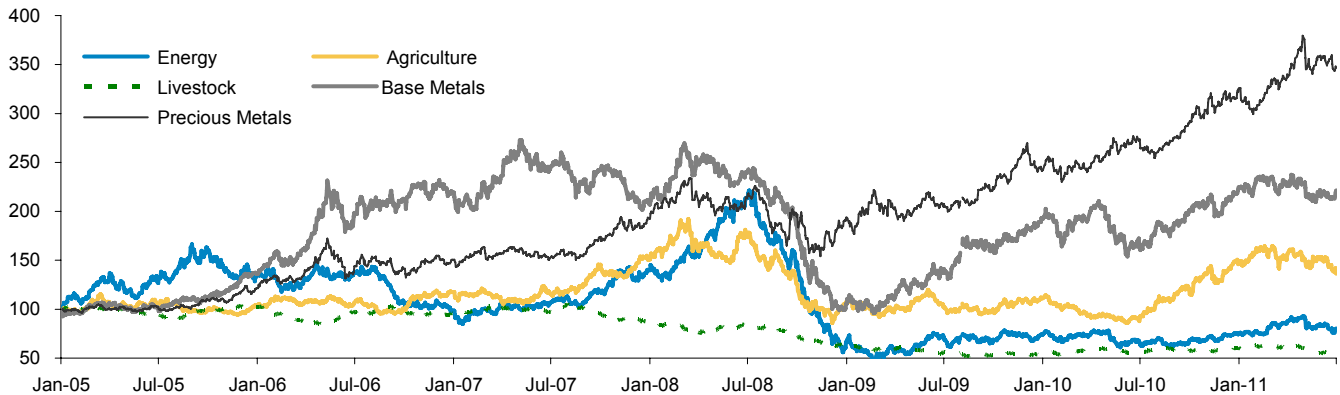
S&P GSCI TR, DJUBS TR, Backwd Basket TR

Rebased at 100 on Jan 3rd 2005



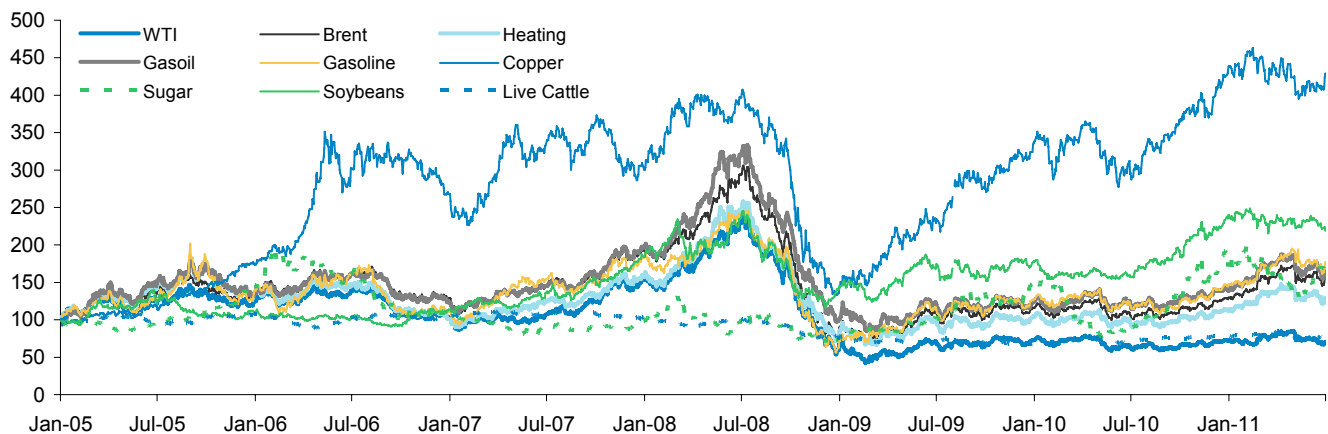
S&P GSCI Sub-Indices (TR)

Rebased at 100 on Jan 3rd 2005



S&P GSCI Individual Commodity Indices (TR)

Rebased at 100 on Jan 3rd 2005



Source: Bloomberg, S&P GSCI, Dow Jones UBS

(1) Calculated on basis of annual January reset to GSCI weights (Petroleum, Copper, Sugar, Livestock, Soybeans).

(2) Calculated on basis of annual January reset to DJUBS weights (Petroleum, Copper, Sugar, Livestock, Soybeans).

APPENDIX 2: Spot Performance

As of 30-Jun-11		Price *	Units	Monthly Δ	Monthly Max	Monthly Min	QTD	YTD	
Individual Commodities	Energy	WTI Crude	95.42	US\$/bbl	-7.1%	102	91	-10.6%	4.4%
		Brent Crude	112.48	US\$/bbl	-3.6%	120	105	-4.2%	18.7%
		Natural Gas	4.37	US\$/mmBtu	-6.3%	4.8	4.2	-0.3%	-0.7%
		GasOil	926.50	US\$/t	-3.7%	992	874	-6.7%	21.5%
		Heating Oil	293.3	US\$/g	-4.0%	314	275	-5.1%	15.3%
		Unleaded Gasoline	303.2	US\$/g	-3.8%	306	278	-2.4%	23.6%
	Metals	Aluminum	2,509.0	US\$/mt	-5.3%	2,665	2,466	-3.5%	2.0%
		Copper	9,301.0	US\$/mt	0.8%	9,301	8,895	-1.0%	-4.5%
		Nickel	23,125.0	US\$/mt	-0.1%	23,335	21,410	-11.3%	-7.4%
		Zinc	2,315.0	US\$/mt	2.9%	2,315	2,149	-0.2%	-4.8%
		Lead	2,622.5	US\$/mt	3.5%	2,623	2,380	-3.6%	1.4%
		Gold	1,500.2	US\$/oz	-2.3%	1,549	1,498	4.7%	5.5%
		Silver	34.69	US\$/oz	-9.9%	37.6	33.6	-7.9%	12.2%
	Platinum	1,720.2	US\$/oz	-5.9%	1,840	1,674	-2.7%	-2.8%	
	Softs & Livestock	Corn	629.0	US¢/bu	-15.9%	787	629	-9.3%	0.0%
		Wheat	584.8	US¢/bu	-25.2%	774	585	-23.4%	-26.4%
		Kansas Wheat	688.8	US¢/bu	-24.1%	271	244	-24.1%	-19.1%
		Soybeans	1,306.3	US¢/bu	-5.1%	1,415	1,306	-7.4%	-6.3%
		Cotton	159.8	US¢/lb	0.7%	165	145	-20.2%	10.3%
		Sugar	28.4	US¢/lb	22.3%	29.3	22.5	4.6%	-11.7%
		Coffee	265.4	US¢/lb	0.3%	271	244	0.5%	10.3%
Cocoa		3,170.0	US\$/mt	5.7%	3,170	2,863	7.4%	4.4%	
Live Cattle		112.8	US¢/lb	8.7%	113	102	-7.2%	4.5%	
Feeder Cattle		138.1	US¢/lb	11.0%	139	124	3.0%	13.3%	
Lean Hogs	94.4	US¢/lb	4.7%	99	89	0.7%	18.4%		

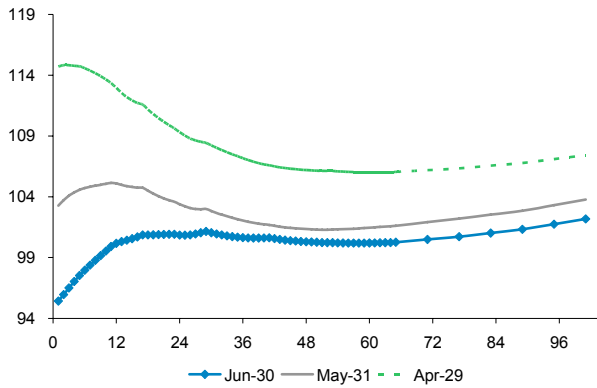
* Prices are generic front-month contracts for all but metals, which are spot.

Source: Bloomberg, Morgan Stanley Commodity Research

QTD: since Mar 31, 2011 YTD: since Dec 31, 2010

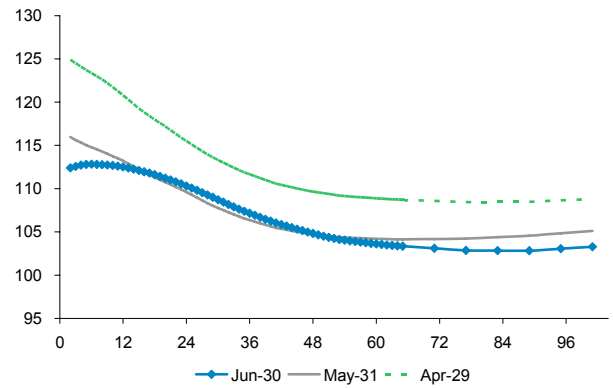
APPENDIX 3: Energy Forward Curves

WTI Crude Oil Forward Curve
(vertical axis: \$/bbl; horizontal axis: months)



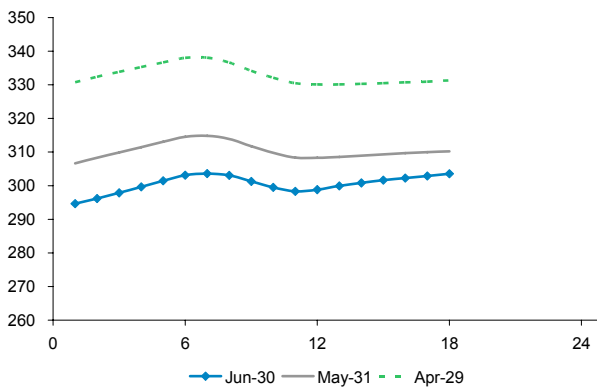
Source: NYMEX, Bloomberg, Morgan Stanley Commodity Research

Brent Crude Forward Curve
(vertical axis: \$/bbl; horizontal axis: months)



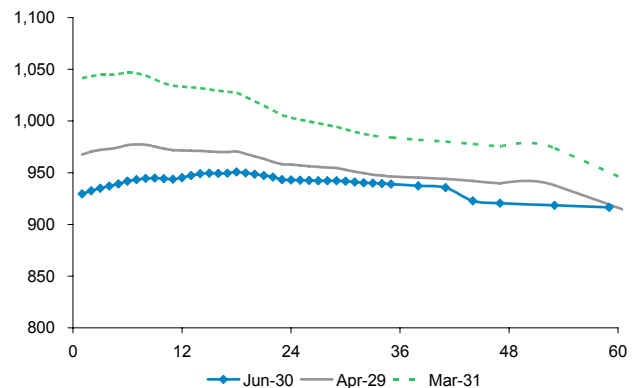
Source: ICE, Bloomberg, Morgan Stanley Commodity Research

Heating Oil Forward Curve
(vertical axis: ¢/gallon; horizontal axis: months)



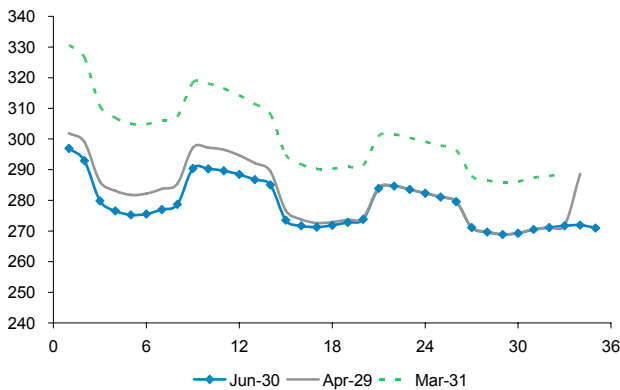
Source: NYMEX, Bloomberg, Morgan Stanley Commodity Research

ICE Gasoil Forward Curve
(vertical axis: \$/metric tonne; horizontal axis: months)



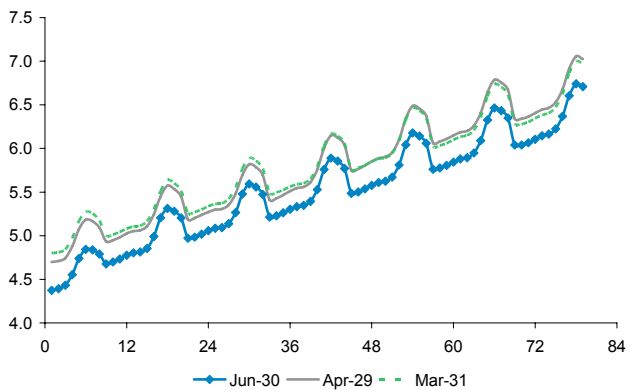
Source: ICE, Bloomberg, Morgan Stanley Commodity Research

Gasoline Forward Curve
(vertical axis: ¢/gallon; horizontal axis: months)



Source: NYMEX, Bloomberg, Morgan Stanley Commodity Research

Henry Hub Natural Gas Forward Curve
(vertical axis: \$/mmBtu; horizontal axis: months)

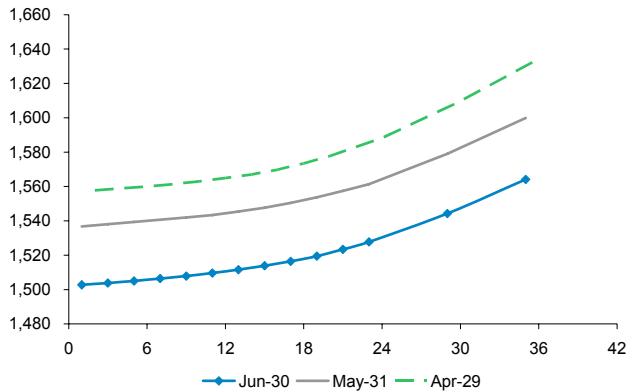


Source: NYMEX, Bloomberg, Morgan Stanley Commodity Research

APPENDIX 4: Metals Forward Curves

Gold Forward Curve

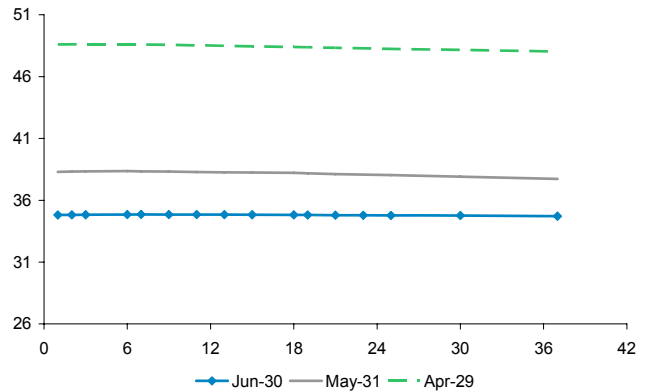
(vertical axis: \$/troy oz; horizontal axis: months)



Source: COMEX, Bloomberg, Morgan Stanley Commodity Research

Silver Forward Curve

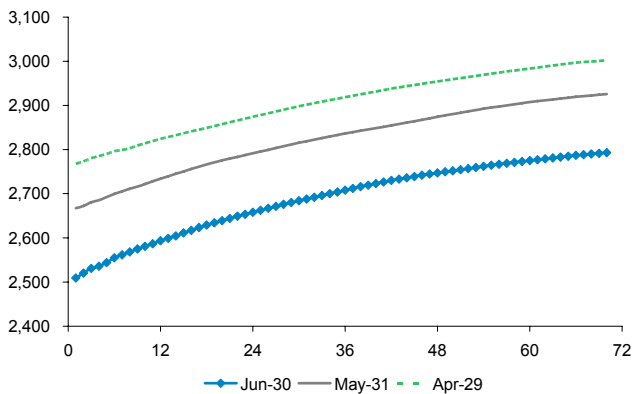
(vertical axis: \$/troy oz; horizontal axis: months)



Source: COMEX, Bloomberg, Morgan Stanley Commodity Research

Aluminum Forward Curve

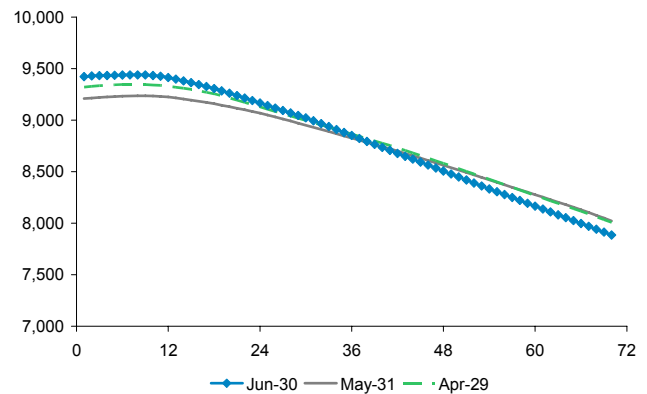
(vertical axis: \$/metric tonne; horizontal axis: months)



Source: LME, Bloomberg, Morgan Stanley Commodity Research

Copper Forward Curve

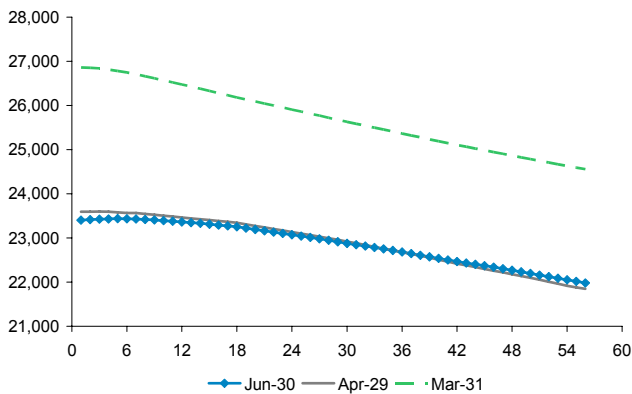
(vertical axis: \$/metric tonne; horizontal axis: months)



Source: LME, Bloomberg, Morgan Stanley Commodity Research

Nickel Forward Curve

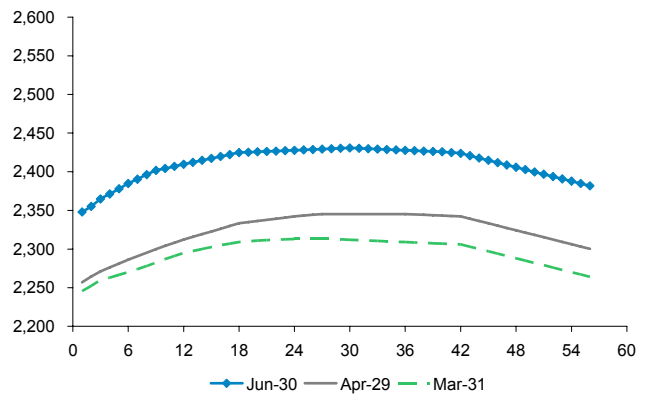
(vertical axis: \$/metric tonne; horizontal axis: months)



Source: LME, Bloomberg, Morgan Stanley Commodity Research

Zinc Forward Curve

(vertical axis: \$/metric tonne; horizontal axis: months)

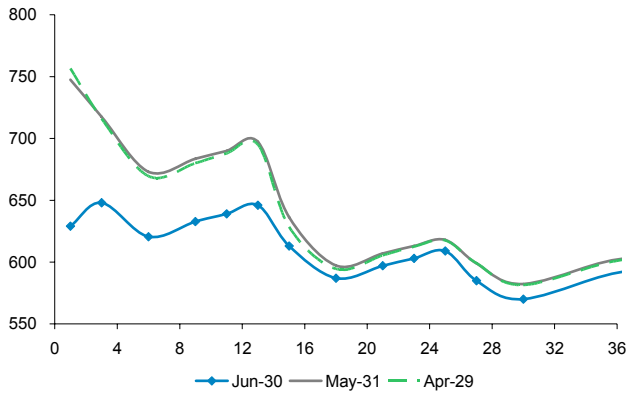


Source: LME, Bloomberg, Morgan Stanley Commodity Research

APPENDIX 5: Agriculture, Softs and Livestock Forward Curves

Corn Forward Curve

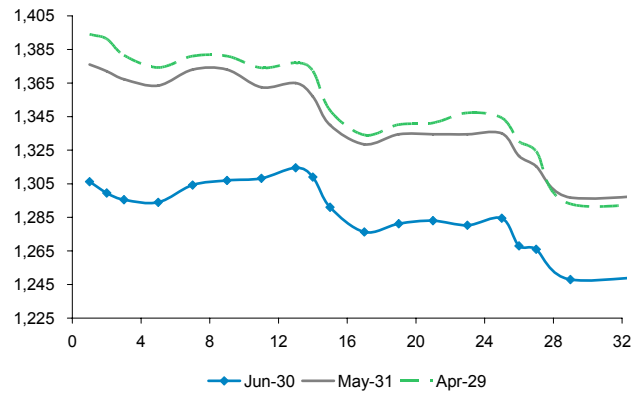
(vertical axis: ¢/bushel; horizontal axis: months)



Source: CBOT, Bloomberg, Morgan Stanley Commodity Research

Soybeans Forward Curve

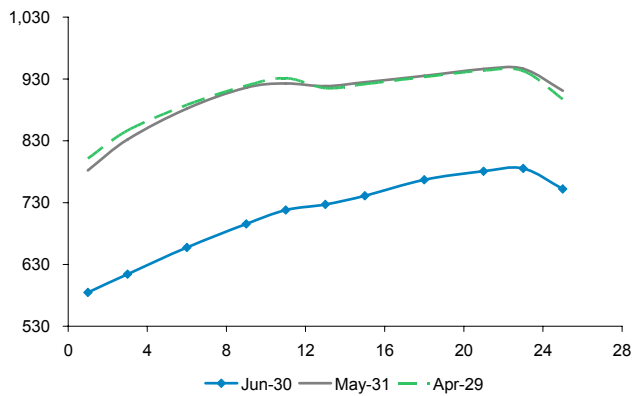
(vertical axis: ¢/bushel; horizontal axis: months)



Source: CBOT, Bloomberg, Morgan Stanley Commodity Research

Wheat Forward Curve

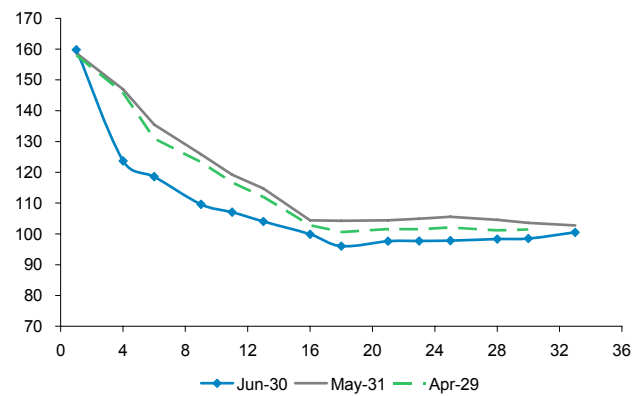
(vertical axis: ¢/bushel; horizontal axis: months)



Source: CBOT, Bloomberg, Morgan Stanley Commodity Research

Cotton Forward Curve

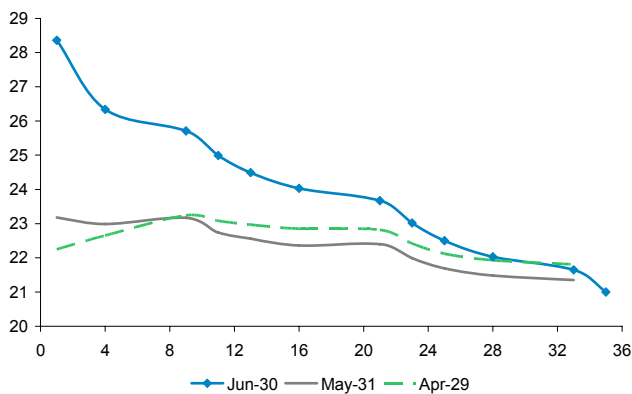
(vertical axis: ¢/pound; horizontal axis: months)



Source: ICE, Bloomberg, Morgan Stanley Commodity Research

Sugar Forward Curve

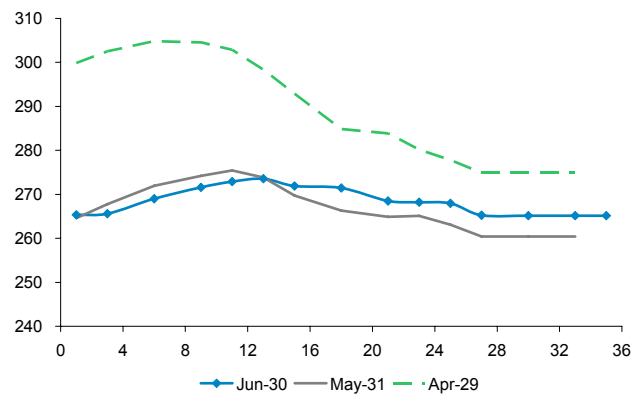
(vertical axis: ¢/pound; horizontal axis: months)



Source: ICE, Bloomberg, Morgan Stanley Commodity Research

Coffee Forward Curve

(vertical axis: ¢/pound; horizontal axis: months)

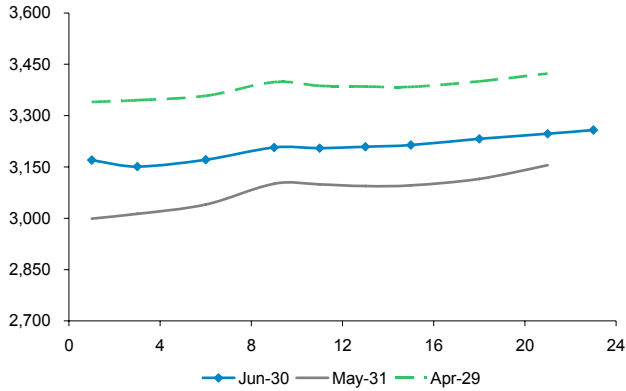


Source: ICE, Bloomberg, Morgan Stanley Commodity Research

APPENDIX 5: Agriculture, Softs and Livestock Forward Curves (Cont.)

Cocoa Forward Curve

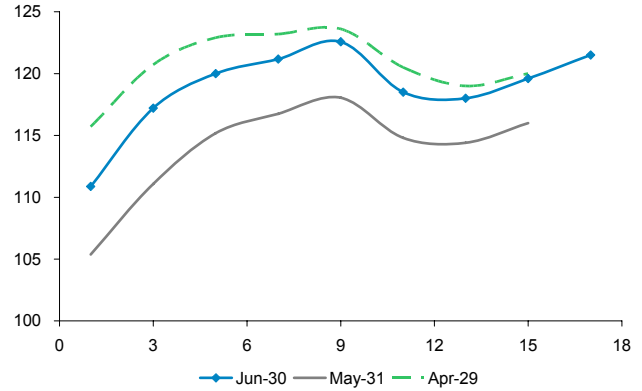
(vertical axis: ¢/pound; horizontal axis: months)



Source: ICE, Bloomberg, Morgan Stanley Commodity Research

Live Cattle Forward Curve

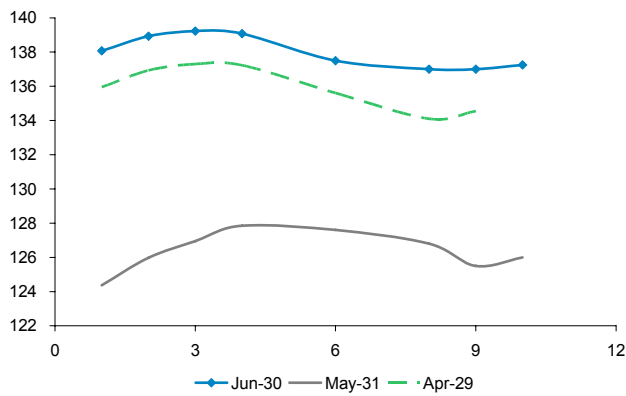
(vertical axis: ¢/pound; horizontal axis: months)



Source: CME, Bloomberg, Morgan Stanley Commodity Research

Feeder Cattle Forward Curve

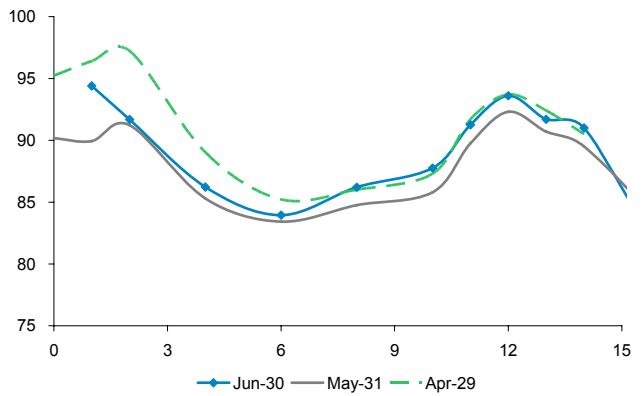
(vertical axis: ¢/pound; horizontal axis: months)



Source: CME, Bloomberg, Morgan Stanley Commodity Research

Lean Hogs Forward Curve

(vertical axis: ¢/pound; horizontal axis: months)



Source: CME, Bloomberg, Morgan Stanley Commodity Research

Disclosure Section

The information and opinions in Morgan Stanley Research were prepared by Morgan Stanley & Co. LLC, and/or Morgan Stanley C.T.V.M. S.A., and/or Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V. As used in this disclosure section, "Morgan Stanley" includes Morgan Stanley & Co. LLC, Morgan Stanley C.T.V.M. S.A., Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V. and their affiliates as necessary. For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

Global Research Conflict Management Policy

Morgan Stanley Research observes our conflict management policy, available at www.morganstanley.com/institutional/research/conflictolicies.

Important Disclosure for Morgan Stanley Smith Barney LLC Customers

The subject matter in this Morgan Stanley report may also be covered in a similar report from Citigroup Global Markets Inc. Ask your Financial Advisor or use Research Center to view any reports in addition to this report.

Important Disclosures

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. Morgan Stanley Research is not an offer to buy or sell any security/instrument or to participate in any trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices market indexes, operational or financial conditions of companies or other factors. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we do not represent that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a company. Facts and views in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley may make investment decisions or take proprietary positions that are inconsistent with the recommendations or views in this report.

To our readers in Taiwan: Morgan Stanley Research is distributed by Morgan Stanley Taiwan Limited; it may not be distributed to or quoted or used by the public media without the express written consent of Morgan Stanley. To our readers in Hong Kong: Information is distributed in Hong Kong by and on behalf of, and is attributable to, Morgan Stanley Asia Limited as part of its regulated activities in Hong Kong; if you have any queries concerning it, contact our Hong Kong sales representatives.

Morgan Stanley is not incorporated under PRC law and the research in relation to this research is conducted outside the PRC. Morgan Stanley Research will be distributed only upon request of a specific recipient. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A.; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Canada by Morgan Stanley Canada Limited, which has approved of and takes responsibility for its contents in Canada; in Germany by Morgan Stanley Bank AG, Frankfurt am Main, regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin); in Spain by Morgan Stanley, S.V., S.A., a Morgan Stanley group company, supervised by the Spanish Securities Markets Commission (CNMV), which states that it is written and distributed in accordance with rules of conduct for financial research under Spanish regulations; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized and regulated by the Financial Services Authority, disseminates in the UK research it has prepared, and approves solely for purposes of section 21 of the Financial Services and Markets Act 2000, research prepared by any affiliates. Morgan Stanley Private Wealth Management Limited, authorized and regulated by the Financial Services Authority, also disseminates Morgan Stanley Research in the UK. Private UK investors should obtain the advice of their Morgan Stanley & Co. International plc or Morgan Stanley Private Wealth Management representative about the investments concerned. RMB Morgan Stanley (Proprietary) Limited is a member of the JSE Limited and regulated by the Financial Services Board in South Africa. RMB Morgan Stanley (Proprietary) Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited.

Trademarks and service marks in Morgan Stanley Research are their owners' property. Third-party data providers make no warranties or representations of the accuracy, completeness, or timeliness of their data and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P. Morgan Stanley bases projections, opinions, forecasts and trading strategies regarding the MSCI Country Index Series solely on public information. MSCI has not reviewed, approved or endorsed these projections, opinions, forecasts and trading strategies. Morgan Stanley has no influence on or control over MSCI's index compilation decisions. Morgan Stanley Research or portions of it may not be reprinted, sold or redistributed without the written consent of Morgan Stanley. Morgan Stanley research is disseminated and available primarily electronically, and, in some cases, in printed form. Additional information on recommended securities/instruments is available on request.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA), and is directed at Professional Clients only, as defined by the DFSA. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria to be a Professional Client.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided in accordance with a contract of engagement on investment advisory concluded between brokerage houses, portfolio management companies, non-deposit banks and clients. Comments and recommendations stated here rely on the individual opinions of the ones providing these comments and recommendations. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

The Americas

1585 Broadway
New York, NY 10036-8293

United States

Tel: +1 (1) 212 761 4000

Europe

20 Bank Street, Canary Wharf
London E14 4AD

United Kingdom

Tel: +44 (0) 20 7 425 8000

Japan

4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6008

Japan

Tel: +81 (0) 3 5424 5000

Asia/Pacific

1 Austin Road West
Kowloon

Hong Kong

Tel: +852 2848 5200