

Agriculture

Grain is no buyer's market

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- Investors are fully focused on the Northern Hemisphere summer planting season, which could complicate matters for a market that is already laden with excess supply. If benign weather materializes, we forecast further downside for grain prices from current levels on a 12-month basis.
- A fading El Niño and an even chance of a La Niña event by year-end lower the risk of a weather event interrupting Northern Hemisphere crop production. But a further increase in the likelihood of La Niña is a material risk to our negative stance on grain prices.
- While we have a bearish view on grains, we retain a neutral stance on softs and livestock. Our least preferred commodity is soybeans, while cotton is our most preferred over 12 months. Within equities, our least preferred sector is fertilizers, and our most preferred is protein producers.

Our view

The risk-reward for agricultural commodities as a whole remains unattractive in our view. Excess supply remains a fundamental backdrop for grain and oilseed markets, while vegetable oils and soft commodities have more supportive individual stories. Soybean oil has been an outperformer this year, as higher crude oil prices were supportive alongside weather-impacted palm oil. For coffee, expectations of better Arabica harvest in Brazil were offset by a rebound in the Brazilian real and production worries elsewhere. The recovery in sugar prices has faltered as the start of the Brazil crush nears.

Looking ahead, March US Department of Agriculture (USDA) planting intentions data was bearish for corn, whereas soybean plantings were below expectations and should keep weather risk embedded in prices until planting is completed. There was a sharp fall in spring wheat plantings, the casualty of more corn, although global stocks are high by historical measures. Weather agencies see last year's record El Niño as fading into mid-2016 and the likelihood of a follow-up La Niña event remains an even chance. This outlook is less supportive of palm oil in 2H16. Sugar's longer-term dynamics look more constructive over the next few years, while the short-term direction for both sugar and coffee seems mostly tied to Brazil's pending harvests and currency exchange rate. For cotton, tighter availability (ex-China) should finally put a floor in prices around current levels. Cocoa remains a wild card, mostly due to production uncertainties.

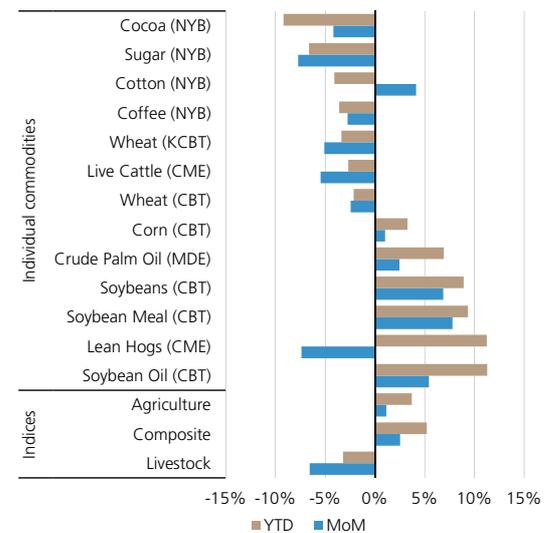
Agriculture commodity preferences

Most preferred		Least preferred	
Commodity	Tenor	Commodity	Tenor
Cotton	12 months	Soybeans	3 months
Cocoa	3 months	Sugar	3 months

Source: UBS, as of 14 April 2016

Fig. 1: Performance of agricultural commodities

Spot returns in USD



* Crude palm oil performance is in MYR terms.

Indices refer to the UBS Bloomberg CMCI Indices

Source: Bloomberg, UBS, as of 14 April 2016

Grain is no buyer's market

We see the next one to two months as mostly about planting of the US summer crops, with USDA planting pace and crop conditions data being the focus each week. Within the Bloomberg Commodity Agriculture Sub-Index, we are most bearish on grains relative to our neutral stance on softs and livestock, although we prefer lean hogs over live cattle.

In the broader context, we highlight the index is 64% allocated to grains. Weather will remain a wild card for some months as the prospect of a transition from El Niño to La Niña remains an overhang. Most global weather agencies see a 50-50 chance of La Niña occurring by year-end. The pace of transition can make a significant difference to the outcome, although we challenge common belief that a faster pace of transition is negative for US yields, which is what matters for now.

Within the grains sector, risks are far from symmetric. From a positioning perspective, wheat and corn remain deeply net-short. Soybeans have consolidated a modest net-long position. If US planting weather turns for the worse, a short-covering rally could have a dramatic impact on the corn price, and wheat would follow. Looking at costs of investment, i.e. the six- and 12-month roll costs, we see wheat and corn as having significant costs to ownership of between 8% and 14%. Seasonality is also against corn and wheat in the second quarter, and we add soybeans to this list later in the quarter. At the other end of the spectrum, livestock have significant seasonal and roll gains attached. In soft commodities, we see limited downside for cotton and cocoa, while in sugar we see price pressures continuing in the short term, although we are more optimistic in 12 months.

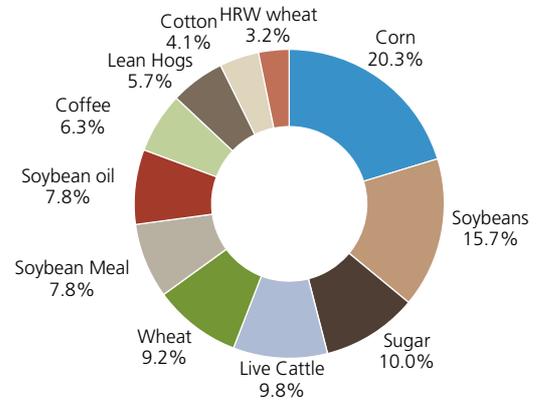
Our outlook has specific equity implications. Under a normal weather scenario, higher corn and potentially soybean acreage should boost demand for crop inputs in the short term. However, these benefits are likely to be offset by prospects of a much larger 2016-2017 crop surplus and another year of decline for US farm incomes. We see this as bearish for agricultural equipment manufacturers also due to a likely muted 2017 early-order program. If we go further downstream, rising corn and soybean surpluses could be supportive of processors and ethanol and protein producers as input costs stay low, which helps margins. That said, at this stage of the cycle, we believe individual demand dynamics for respective products are more critical for margin improvement in the near term.

La Niña no panacea as El Niño fades

Many agricultural bulls are hoping La Niña follows quickly on the heels of El Niño. Why? Simply because without a major weather event, there is little bullish news to provide an impetus for grain prices this year and into 2017. The USDA supply and demand estimates paint a bearish picture, under normal weather, of elevated stocks even if incremental shifts in planting decisions were to eventuate before final US areas are planted. The truth is, the likelihood of a La Niña this year is still a long shot; in fact, according to global weather agencies, the occurrence of a meaningful event by year-end is just above a 50% chance, at this stage.

Fig. 2: BCOM favors grains and oilseeds; perfect weather could drive further index downside

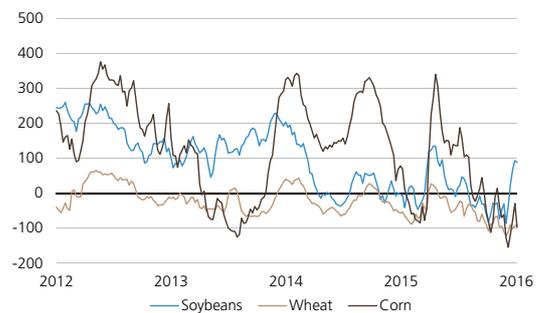
Bloomberg Commodity Index agriculture sub-index weights



Source: Bloomberg, UBS, as of 14 April 2016

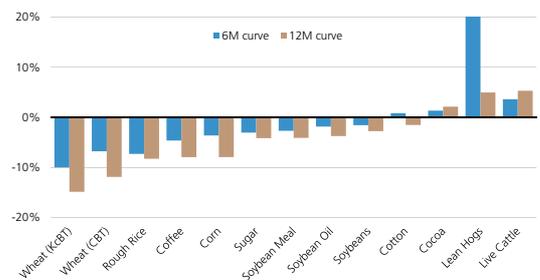
Fig. 3: Investor positioning in grains and oilseeds is polarized

In thousand contracts, net non-commercial positions



Source: CFTC, Bloomberg, UBS, as of 14 April 2016

Fig. 4: Roll costs remain mostly negative across the sector, hindering direct exposure
Spot vs. 6-month and 12-month futures



Source: Bloomberg, UBS, as of 14 April 2016

There is precedent, however, particularly after last year's record-breaking El Niño. Based on the Australian Bureau of Meteorology data, of the 26 El Niño events since 1900, around half were followed by a neutral year and nearly 40% by a La Niña event.

If La Niña is a reality, what might we expect?

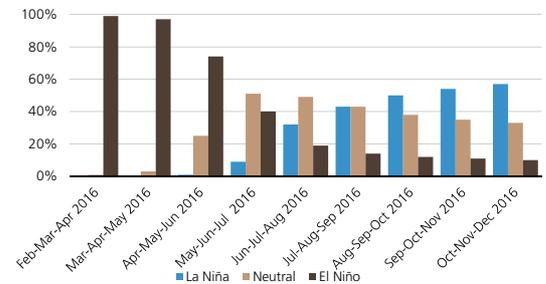
La Niña tends to bring below-average rainfall and above-average temperatures to the southern and central US cropping regions and parts of South America, most notably Argentina and southern Brazil. These regions together make up 83% and 47% of world production of soybeans and corn, respectively. An above-average Indian monsoon and rainfall for Southeast Asia and Southern Australia is also more likely.

Historically, corn tends to be the most affected crop, followed by soybeans. We analyzed corn yields since 1975 and found that the average decline in the US following a La Niña event has been around 10%. During the severe events of 1988-1989 and 2012-2013, yields dropped by 29% and 16%, respectively. On a global basis, the average decline was lower, only 3.4%; the largest decline was 17% in 1983-1984. Looking at soybeans, US yields on average dropped 6.5%, with the largest decline being 20% during the 1988-1989 event. Globally, soybean yields dropped 3.2% in years of La Niña. Using the same methodology, we note a minimal impact on wheat yields, and sugar could actually experience a small improvement in overall global production, although this is concentrated with Asian producers.

The historical performance of prices is obviously closely tied to the duration of the event, the level of stocks entering the La Niña period, and the pace of the transition from El Niño. Most recently, corn prices almost doubled during the double-barrel 2011-2013 events when the US stocks-to-use ratio fell from 13% to 7.4%. Similarly, soybean prices rose by 65% over the same period and the US stocks-to-use ratio fell from 6.6% to 4.5%. Clearly, on this occasion, US soybean inventories are much higher at 12.8%. The speed of transition matters; for example, if we take two analog years to the current situation, 1983-1984 and 1998-1999, the pace of transition was vastly different, but the effect on yields was not as one would expect. The slower 1983-1984 event had a greater impact on US productivity than 1998-99. Corn and soybean yields in 1983-1984 fell 28% and 17%, respectively. In 1998-1999, yields actually increased, while in South America it was a negative event for yields. So the final outcome is not cut and dried: a faster pace of transition has been positive for US yields in the past compared to South America, particularly Argentina.

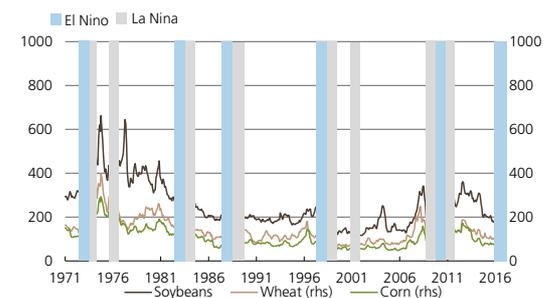
In terms of agriculture equities, if a strong La Niña event were to eventuate in 2016-2017, our sector preferences would change substantially. Clearly, a reversal of the current bearish outlook for grain prices would be supportive of machinery, crop inputs, and science in the following year. The overall impact on farm incomes would be determined by the relative change in production versus price. Historically, increases in grain price more than offset the yield losses. Livestock producers are clear losers in this scenario. Depending on the pace of transition, impacts could vary by geography.

Fig. 5: Probability of a meaningful La Niña event is between 50% and 60% by year-end
Percent probability of El Niño, La Niña, or neutral weather



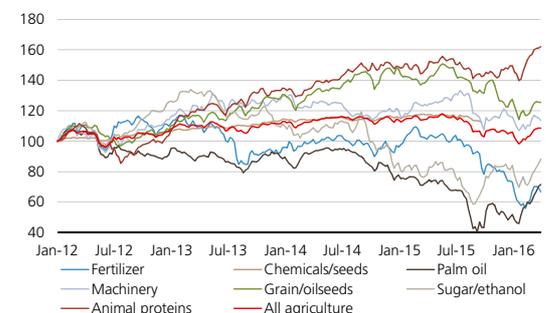
Source: NOAA, UBS, as of 14 April 2016

Fig. 6: Changes in real prices are significant around El Niño and La Niña events
Prices in inflation-adjusted terms (USD/bu)



Source: Bloomberg, UBS, as of 14 April 2016

Fig. 7: Equity market performance trends could reverse under a strong La Niña scenario
Index 100=2012, weighted by USD market cap



Source: Bloomberg, UBS, as of 14 April 2016

USDA planting report leaves uncertainties

Each year the USDA asks farmers about their planting intentions for the summer cropping year ahead. These initial estimates usually set the tone for the coming months. Surprises were one-sided in this year's March report, and opened the door for a further leg down in corn prices. Should corn acreage come close to the 93.6 million acres estimated and normal weather conditions prevail, then 2016-2017 year-end stocks should comfortably rise to 2.25 billion bushels or more – a decade high. The soybean area estimated at 82.2 million acres was below expectations of 83 million.

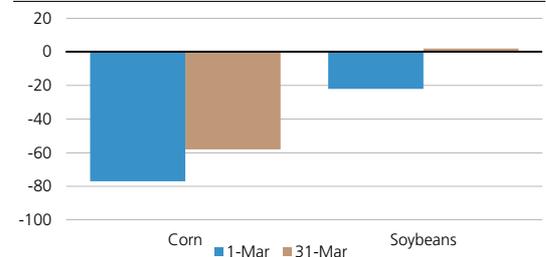
The discussion about final US acres is now heating up, with changing crop economics over the month of March indicating there could be a swing toward more soybeans. Whether this comes at the expense of corn areas remains to be seen, as corn returns over cash costs have improved as well. If we look at the last two decades, changes between corn prospective plantings and final planting numbers have varied by less than 2 million acres 95% of the time. Likewise, the revisions of soybean areas 80% of the time have been less than 2 million acres. If soybean acres increased by one million acres, the stocks-to-use estimate would rise by almost 100 basis points. In case this increase came at the expense of corn, then corn's stocks-to-use would rise by 170 basis points, not the current forecast increase of 240. USDA planting estimates showed 1.72 million acres were unplanted in 2016 versus 2015, so the potential for more soybeans and a similar area of corn planted is equally probable.

Downside to corn and soybean prices, with wheat following corn

The USDA will not publish its first full 2016-2017 balance forecast until 10 May. However, our first forecasts of 2016-2017 predict harvest prices lower than futures currently indicate. According to our price model, assuming average yields, the corn price should reach USD 3.40/bu by harvest (six-month basis), so below the forward price. Likewise, the soybean harvest price is forecast at USD 8.50/bu and November futures are trading at USD 9.60/bu. If weather is benign, we forecast about an 11% decline in soybeans and a 9.5% decline in corn. Wheat has no real story of its own despite total US wheat plantings falling to 49.6 million acres versus 54.6 million last year. Largely global stocks remain at decade highs and only poor weather in the EU or Russia could see wheat move on its own. We forecast a USD 1.20/bu premium to corn over 12 months. We see wheat trading at USD 4.70/bu. Already, December futures are trading at USD 4.8/bu.

Fig. 8: Shifting corn and soybean economics favor more soybean plantings in the "corn belt"

Return minus cash costs (including land rental), USD/acre



Source: Iowa State University, UBS, as of 14 April 2016

Fig. 9: US soybean balance sheet shows stocks remaining elevated in 2016-2017

Million acres and million bushels

M acres/ M bu	USDA	UBS 2016-2017			UBS Alt
	2015-2016	Low	Trend	High	Area
Planted	82.7	82.2	82.2	82.2	83.2
Harvested	81.9	81	81.4	81.4	82.4
Yield (bu/ac)	48	42	45.5	48	45.5
Carryin stocks	191.0	469.8	469.8	469.8	469.8
Production	3929	3402	3704	3907	3748
Imports	30	50	30	20	30
Total Supply	4150	3922	4204	4397	4248
Crush	1870	1770	1870	1880	1870
Exports	1680	1680	1740	1810	1750
Seed+Resid	130	130	130	130	130
Total use	3680	3580	3740	3820	3750
Carryout	469.8	341.8	463.5	577.0	497.5
Stocks/Use	12.8%	9.5%	12.4%	15.1%	13.3%
Price USD/bu	8.69	10.16	8.84	7.84	8.50

Source: USDA, UBS, as of 14 April 2016

Fig. 10: US corn balance sheet shows a further stock build in 2016-2017

Million acres and million bushels

M acres/ M bu	USDA	UBS 2016-2017			UBS Alt
	2015-2016	Low	Trend	High	Area
Planted	88.4	93.6	93.6	93.6	93.0
Harvested	80.7	84.2	85.2	85.2	84.6
Yield (bu/ac)	168.4	158	167	173	167
Carryin stocks	1731	1862	1862	1862	1862
Production	13601	13310	14224	14735	14133
Imports	50	25	20	15	20
Total Supply	15382	15197	16106	16612	16015
Exports	1625	1650	1800	1900	1800
Feed	5300	5250	5450	5500	5450
FSI use	6595	6500	6610	6700	6610
Ethanol	5225	5125	5230	5300	5230
Total use	13520	13400	13860	14100	13860
Carryout	1862	1797	2246	2512	2155
Stocks/Use	13.8%	13.4%	16.2%	17.8%	15.5%
Price USD/bu	3.91	4.16	3.41	3.10	3.67

Source: USDA, UBS, as of 14 April 2016

Individual commodity views (I)

Investment Thesis	Things to watch
<p>Corn (3-month view: Bearish; 12 months: USD 3.5/bu)</p> <ul style="list-style-type: none"> - The USDA's 31 March Prospective Plantings report surprised investors with a planting estimate of 93.6m acres, which was well above analysts' average estimate of 89.9m acres. Applying a trend yield of 167 bushels per acre, we could see US stocks rising to 2.5bn bushels or a stocks-to-use ratio of more than 18%. If such stocks materialize, we would expect corn to trade near USD 3.5/bu. - Outside the US, exports from Argentina reached a February high of 2.6m tons, Brazil's second crop planting is progressing swiftly and harvest expectations look set to beat the USDA forecast by 2m tons to 86m tons. Ukraine areas are forecast to increase by 10% following poor winter wheat plantings, and European production should bounce back by 15%. - China announced much-anticipated reforms to domestic corn pricing policy to bridge the gap between international and domestic prices. Large accumulated government stockpiles could now be offloaded into the domestic market, reducing the need for imports of feed grains including corn, sorghum, and dried distillers grains (DDGs). 	<ul style="list-style-type: none"> -US weather and planting progress in the coming weeks - Exports pace from Brazil and Argentina - US ethanol grinding margins - More detail on China's agricultural policy changes
<p>Wheat (3-12 month view: Bearish; 12 months: USD 4.70/bu)</p> <ul style="list-style-type: none"> - Frost risks and dryness in winter wheat regions of the US recently sparked short covering by investors. US weather threats are not yet having any material negative impact on yields, but longer-term climate models showing drier conditions persisting through to June are more concerning. - The 2016-2017 wheat balance sheets have a similar story to corn and soybeans: elevated stocks. If we factor in a 3m acre cut in planted area this year and assume a modest increase in demand, US ending stocks would still remain in the vicinity of 1bn bushels, the highest level since 1987-1988. - We see better value in Matif wheat versus Chicago currently. We expect fading EURUSD strength over a three- to six-month view and still uncompetitive US Gulf Coast wheat prices to support a reversal in the recent spread shift to around parity between the two origins. We target Matif trading back toward its historical premium of USD 10- 15/ton versus Chicago. 	<ul style="list-style-type: none"> - US winter wheat conditions and spring planting expectations - Russian crop forecasts - Egypt size and winning price of import tenders
<p>Soybeans (Least preferred over 3 months; 12 months: USD 8.75/bu)</p> <ul style="list-style-type: none"> - The USDA Prospective Plantings report area estimate of 82.2m acres was below the average consensus prediction of 83m acres and below last year's 82.6m acres. If we assume a trend yield of 46bu/acre, stocks would be broadly flat at 484m bu - a 12.9% stocks-to-use ratio. Our model would predict a November soybean price of USD 8.25/bu. - South American harvests loom large with 101m tons forecasted for Brazil and 60m tons for Argentina. Lower Argentinean export taxes and a depreciated peso make exports highly competitive in global markets, particularly for soybean oil and meal. - Chinese soybean imports were 6% higher year-on-year in February and the USDA raised full-year imports to 82m tons. Poor domestic crush margins and soybean meal prices reaching an eight-year low see limited upside to any further upward revisions to import forecasts. 	<ul style="list-style-type: none"> -US weather and planting progress - South American harvest results and exports pace - Rising export competition from Argentina on soybean products - US and Chinese crush margins
<p>Palm oil (3-month view: Sideways; 12 months: MYR 2,400/ton)</p> <ul style="list-style-type: none"> - Malaysian palm oil inventories in March declined 13.1% m/m to a 12-month low of 1.89m tons. Further stock drawdowns could support one final price uptick in 2Q16, the availability of soybean oil could limit palm oil's upside. - The 2015 El Niño is blamed for elevated tree stress, which saw Malaysian Fresh Fruit Bunch yields fall to 0.99 tons/hectare (ha) or around levels last seen in the other equal record El Niño event of 1997-1998. Normal seasonal patterns do dictate lower production at this time of the year; however, how quickly the palms can bounce back from the drought-like conditions of last year can only be quantified in April production data. - The discount at which palm oil trades relative to soybean oil has narrowed markedly to USD 68/ton versus a five-year range of USD 100- 150/ton. Historically, palm oil has only traded at a premium to soybean oil twice in 10 years. A seasonal ramp-up in production in 2H16 should send prices lower, but if a La Niña event follows, it could lower the prospects for the South American soybean crop and represent a risk to our 12-month price forecast. 	<ul style="list-style-type: none"> -Malaysian palm oil production numbers - European, Chinese, and Indian monthly imports and Indonesian biodiesel use - USDMYR currency movements - Chinese diesel exports to Asia

Source: UBS, as of 14 April 2016

Individual commodity views (II)

Investment Thesis	Things to watch
<p>Cotton (Most preferred over 12 months; 12 months: USD 0.70/lb)</p> <ul style="list-style-type: none"> - Cotton has been one of the worst performers so far in 2016, with prices declining 7% ytd on weaker Chinese imports. The Chinese government announced that stockpile sales will resume in April. We anticipate less planted area in 2016, but still see raw cotton exports from China as low risk. - US plantings are expected to rise; we expect the USDA to forecast 9.3m to 9.5m acres, which could see production range between 14.5m and 15.0m bales. Waterlogging across southern US states raises the risk of areas being pared back. Southern Hemisphere harvests are underway, Australian production has suffered from dry conditions and Brazil at 6.8m bales is slightly below that of 2014-2015. - A record net short position in the ICE futures exchange, lower US certified stocks, and a material tightening of global stocks that can be made available for export are price-supportive on a six- and 12-month basis, in our view. That said, Chinese imports remain weak and the government's desire to sell domestic reserves limits near-term hopes of a price revival. 	<ul style="list-style-type: none"> - Pace of Chinese government reserve sales - US planting progress and crop conditions - Crude oil outlook and price implications for synthetic fiber
<p>Sugar (Least preferred over 3 months; 12 months: USD 0.155/lb)</p> <ul style="list-style-type: none"> - A 10% appreciation of the Brazilian real against the US dollar, El Niño induced Asian production shortfalls and the risk of a slow start to Brazil's Center-South crush converged to lift sugar prices 11% over March. - Production in 2015-2016 will likely either decline or stagnate for major exporters and producers; we now anticipate a deficit of between 5m and 6m tons due to disappointing production in Thailand and India. - White raw refining margins were supportive of raw sugar prices in March. The white raw refiner margin is trading above USD 100/ton, above the five-year average of USD 96/ton. Brazilian ethanol prices are above the 70% energy-value line versus gasoline, so a stronger BRL should encourage US ethanol imports. 	<ul style="list-style-type: none"> - Brazil Center-South crush pace, sugar content and ethanol/sugar mix - BRLUSD currency movements - Thailand export and Chinese import pace
<p>Coffee (3 months view: Bearish; 12 months: USD 1.20/lb)</p> <ul style="list-style-type: none"> -Arabica coffee prices finished March 12% higher, in our opinion largely reflecting a 10% surge in the Brazilian real against the US dollar. - Although there were some concerns regarding Robusta production outlook for key producing countries like Brazil, Vietnam, and Indonesia, production estimates still look comfortable. - Exchange inventories have been showing a declining trend while US green coffee stocks rose to 5-month highs to 5.9m bags. - The forward curve is still in contango, showing supply is ample, and 6-7m bags of year-on-year recovery in the upcoming Brazilian harvest could further weaken coffee fundamentals. 	<ul style="list-style-type: none"> -Brazil crop development - BRLUSD currency movements - Robusta exports from Indonesia and Vietnam
<p>Cocoa (Most preferred over 3 months; 12 months: USD 2,900/ton)</p> <ul style="list-style-type: none"> - Cocoa prices benefited from dry weather concerns in West Africa as the El Niño event brought with it the most extreme Harmattan wind in 30 years. This had a negative impact on mid-crops in both the Ivory Coast and Ghana. The ICCO projected a deficit of 113,000 tons in its first estimate for 2015-2016, with production declining 1.8% year-on-year to 4.2m tons. Grinder demand is expected to rise 1.9% year-on-year to 4.23m tons. - Price volatility should remain elevated in the near term as mid-crop concerns and ongoing dryness in West Africa drive sentiment. A recovery in grinder demand is likely to be a supportive element after last year's drop, which, in our opinion, should prevent prices from making any sustained fall below USD 2,800/ton. 	<ul style="list-style-type: none"> -Mid-crop harvest in Ivory Coast, Ghana and Indonesia - US, Europe and Asia grinder margins and grinding pace - Ivory Coast port deliveries - GBPUSD currency movements

Source: UBS, as of 14 April 2016

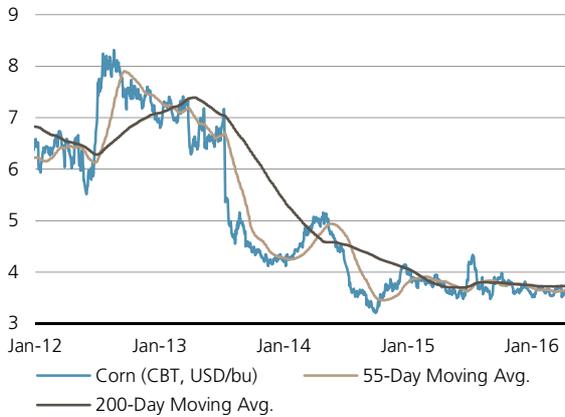
Individual commodity views (III)

Investment Thesis	Things to watch
<p>Lean Hogs (3-month view: Sideways; 12 months: USD 0.70/lb)</p> <ul style="list-style-type: none"> - Slower hog production growth (mostly due to lower carcass weights) helped raise producers' pricing power in March, which, when added to cheaper feed, saw margins recover back to their 10-year average of USD 12/head. - US finished hog inventories remain solid and we see no immediate squeeze on availability during spring/summer. 2H16 is a different story. Farrowing intentions data showed a fall of 3.5% for Jun-Aug 2016. This is likely to start having a more material impact on availability toward the end of this year and into 2017. - Chinese pork imports rose by 80% to 430,600 tons between October 2015-February 2016, US pork exports over the same period increased by 7%, and exports to China increased by 96%. Exports to China made up around 10% of total US pork exports. Recent Chinese government announcements on domestic feed grain policies are supportive of better domestic hog crush margins, though this is a longer-term consideration. 	<ul style="list-style-type: none"> - Chinese import and pork CPI - US, Brazil, Canada, and EU export pace - US producers' crush margin and farrowing intentions.
<p>Live cattle (3-month view: Bearish; 12-month: 1.25 USD/lb)</p> <ul style="list-style-type: none"> -US herd rebuilding continues and the USDA expects total US cattle and calf inventories to expand by 3% to 92m heads. Cows expected to calve in 2016 lifted 6% and heifer retention should lift total numbers by 3%. Calf crop should expand 2%. - US cattle on feed have now increased each month this year, although total numbers remain at the bottom of the 10-year range and well below the period average. We expect this trend to continue, which, when combined with an increase in the slaughter rate, would make beef packer utilization sequentially rise into 2017. - Beef prices lifted in March, which helped packer margins shift back into positive territory. Beef inventories did decline in February; however, overall stock levels remain near record highs as weak demand persisted due to seasonal factors and higher prices relative to chicken and pork. 	<ul style="list-style-type: none"> -Beef packer margins and processing utilization rates - US cattle-on-feed data - BRLUSD and AUDUSD currency performance

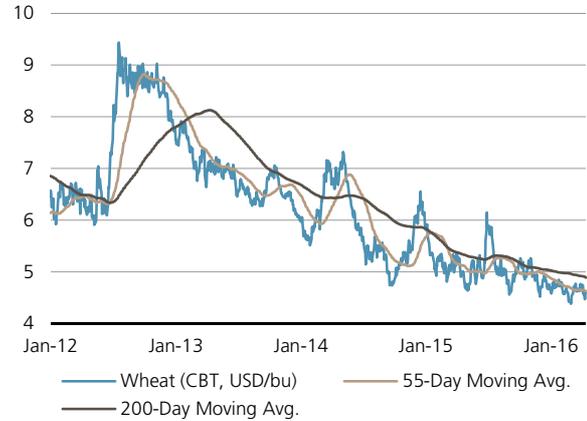
Source: UBS, as of 14 April 2016

Individual commodity prices

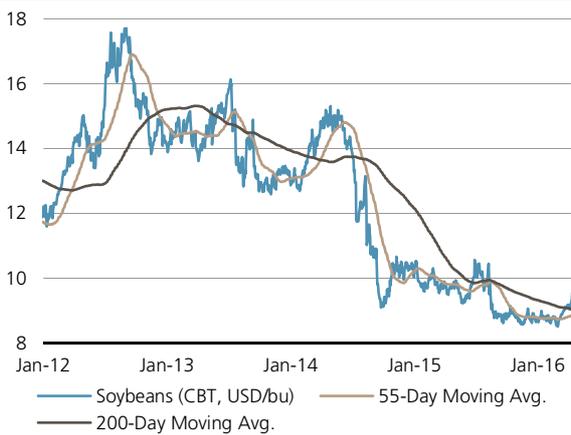
Corn (CBT, USD/bu)



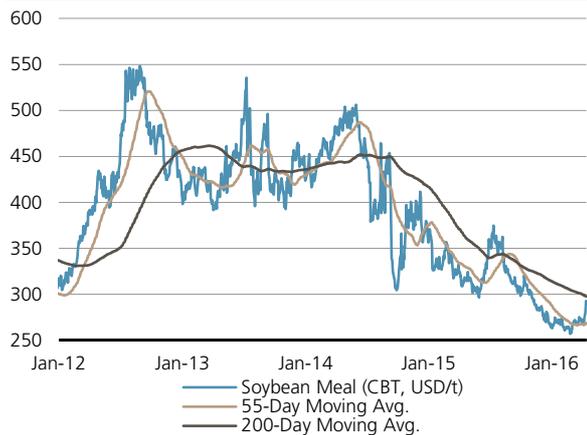
Wheat (CBT, USD/bu)



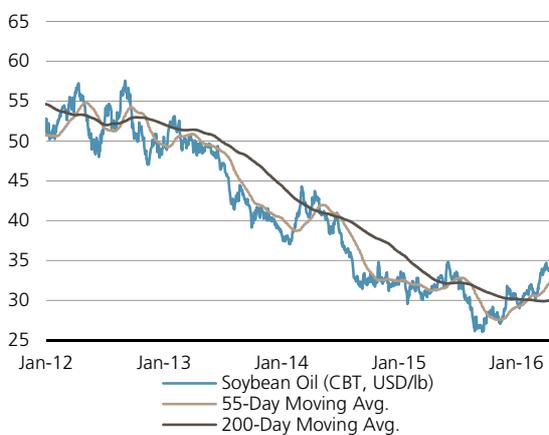
Soybeans (CBT, USD/bu)



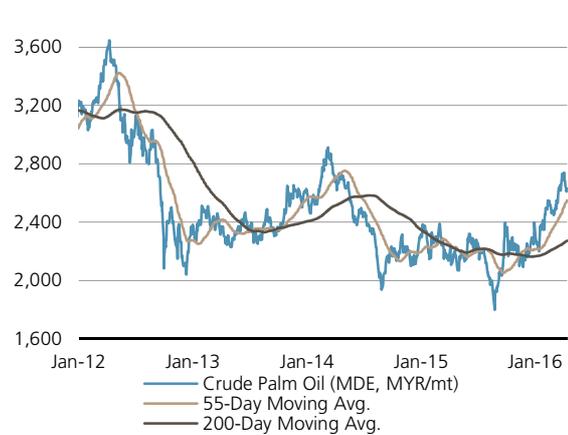
Soybean Meal (CBT, USD/t)



Soybean Oil (CBT, USD/lb)



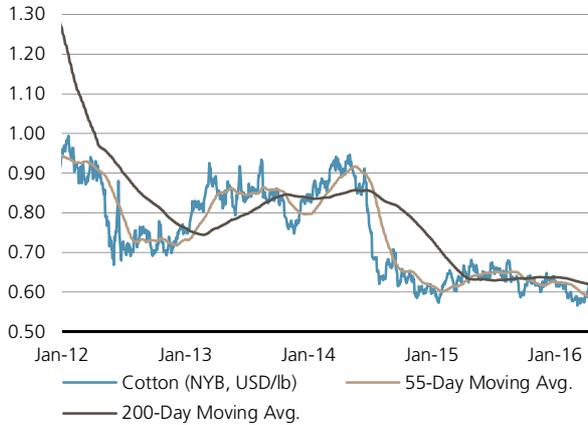
Crude Palm Oil (MDE, MYR/mt)



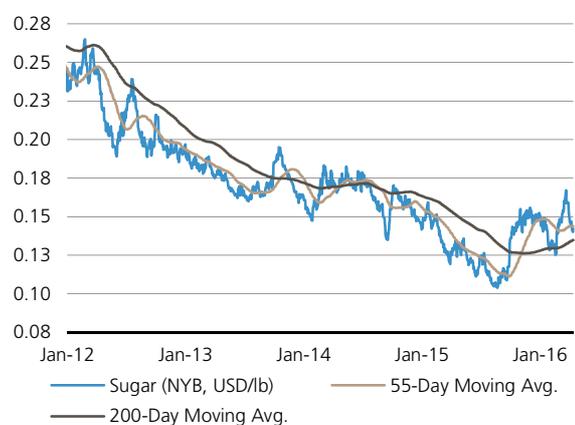
Source: Bloomberg, UBS, as of 14 April 2016

Individual commodity prices

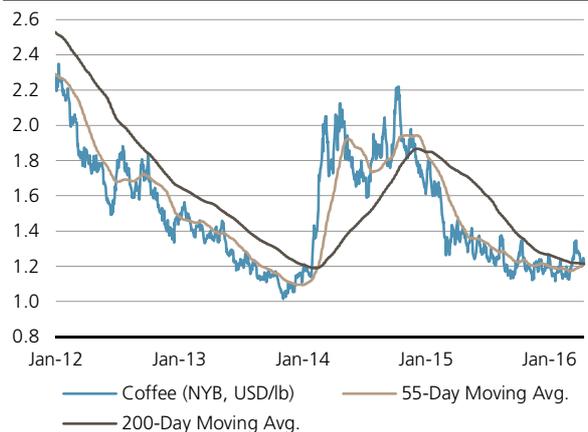
Cotton (NYB, USD/lb)



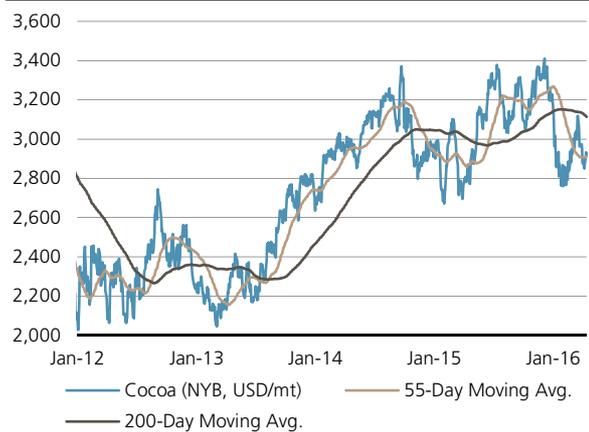
Sugar (NYB, USD/lb)



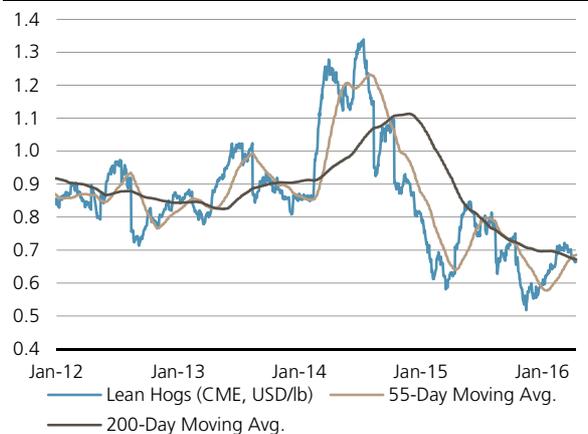
Coffee (NYB, USD/lb)



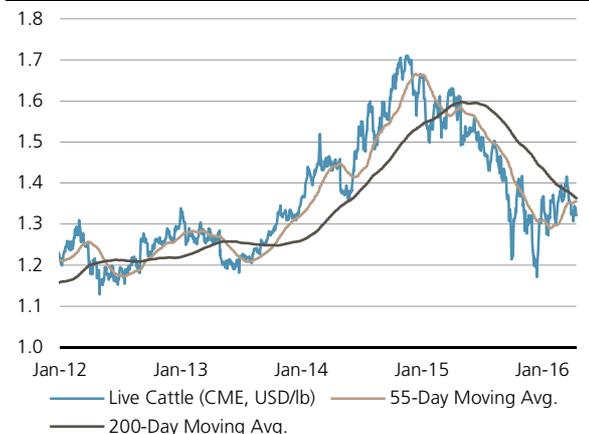
Cocoa (NYB, USD/mt)



Lean Hogs (CME, USD/lb)



Live Cattle (CME, USD/lb)



Source: Bloomberg, UBS, as of 14 April 2016

Forecast table

Sector/Commodity			Market data		3-month view			6-month view			12-month view		
Energy	Units	Exch.	Imp. Vol.	Act. F.	View	L. Range	U. Range	View	Forecast	ESM %	View	Forecast	ESM %
Brent Crude Oil	USD/bbl.	ICE	n.a.	43.6	Bearish	30.0	47.0	Sideways	45.0	3.2%	Bullish	55.0	26.1%
WTI Crude Oil	USD/bbl.	NYM	42.7%	41.3	Bearish	30.0	47.0	Sideways	43.0	4.1%	Bullish	53.0	28.3%
Natural Gas HH	USD/MMBtu	NYM	n.a.	2.03	Sideways	1.65	2.30	Sideways	2.30	13.5%	Bullish	2.80	38.2%
CAPP Thermal Coal (US)	USD/T.	NYM	n.a.	43.6	Bearish	37.5	47.5	Bearish	40.0	-8.3%	Bearish	42.0	-3.7%
NW Thermal Coal (AU)	USD/MT	ICE	n.a.	49.1	Bearish	45.0	55.0	Bearish	45.0	-8.3%	Bearish	45.0	-8.3%
Precious metals	Units	Exch.	Imp. Vol.	Spot	View	L. Range	U. Range	View	Forecast	ESM %	View	Forecast	ESM %
Gold	USD/t oz.	CMX	16.4%	1,243	Sideways	1,100	1,310	Sideways	1,200	-3.4%	Sideways	1,200	-3.4%
Silver	USD/t oz.	CMX	25.8%	16.2	Sideways	13.5	17.5	Sideways	15.5	-4.4%	Sideways	15.5	-4.4%
Platinum	USD/t oz.	NYM	20.9%	993	Sideways	850	1,050	Sideways	950	-4.3%	Sideways	950	-4.3%
Palladium	USD/t oz.	NYM	29.5%	543	Bearish	460	600	Sideways	575	6.0%	Sideways	575	6.0%
Base metals	Units	Exch.	Imp. Vol.	3M F.	View	L. Range	U. Range	View	Forecast	ESM %	View	Forecast	ESM %
Copper	USD/MT	LME	21.8%	4,810	Bearish	4,000	5,100	Sideways	4,500	-7.2%	Sideways	4,500	-6.4%
Aluminum	USD/MT	LME	17.5%	1,555	Sideways	1,400	1,650	Sideways	1,550	0.1%	Sideways	1,600	2.9%
Nickel	USD/MT	LME	31.9%	8,910	Sideways	7,900	9,500	Sideways	8,500	-5.0%	Sideways	9,500	6.6%
Zinc	USD/MT	LME	29.5%	1,869	Bearish	1,500	1,850	Sideways	1,700	-9.4%	Sideways	1,850	-1.0%
Lead	USD/MT	LME	25.8%	1,753	Bearish	1,500	1,900	Bearish	1,600	-8.6%	Sideways	1,800	2.7%
Tin	USD/MT	LME	27.7%	17,100	Bearish	14,000	15,000	Bearish	15,000	-12.3%	Sideways	16,000	-6.4%
Agriculture	Units	Exch.	Imp. Vol.	Act. F.	View	L. Range	U. Range	View	Forecast	ESM %	View	Forecast	ESM %
Corn	USD/bu.	CBT	21.7%	3.76	Bearish	3.25	3.75	Sideways	3.40	-9.5%	Sideways	3.50	-6.8%
Wheat (CBT)	USD/bu.	CBT	25.9%	4.68	Bearish	4.50	5.25	Sideways	4.60	-1.7%	Sideways	4.70	0.5%
Soybeans	USD/bu.	CBT	21.8%	9.60	Bearish	8.50	9.75	Sideways	8.50	-11.4%	Sideways	8.75	-8.8%
Crude Palm Oil	USD/MT	MDE	n.a.	2,658	Sideways	2,400	3,000	Sideways	2,600	-2.2%	Bearish	2,400	-9.7%
Cotton	USD/lb.	NYB	n.a.	0.60	Sideways	0.55	0.65	Bullish	0.65	7.8%	Bullish	0.70	16.1%
Sugar	USD/lb.	NYB	n.a.	0.144	Bearish	0.135	0.160	Sideways	0.140	-3.0%	Bullish	0.155	7.3%
Coffee	USD/lb.	NYB	n.a.	1.23	Bearish	1.15	1.30	Sideways	1.20	-2.6%	Sideways	1.20	-2.6%
Cocoa	USD/MT	NYB	n.a.	2,954	Sideways	2,700	3,200	Sideways	3,000	1.6%	Sideways	2,900	-1.8%
Livestock	Units	Exch.	Imp. Vol.	Act. F.	View	L. Range	U. Range	View	Forecast	ESM %	View	Forecast	ESM %
Lean Hogs	USD/lb.	CME	n.a.	0.781	Sideways	0.60	0.80	Sideways	0.65	-16.8%	Sideways	0.70	-10.4%
Live Cattle	USD/lb.	CME	n.a.	1.217	Bearish	1.20	1.50	Sideways	1.30	6.8%	Sideways	1.25	2.7%

Source: Bloomberg, UBS, as of 14 April 2016 UBS View: Bullish = we target the upper bound of the signaled range, Sideways = we hold no directional view, as prices should be range bound, Bearish = we target the lower bound of the signaled range

Abbreviations: Impl. Vol. = Implied market volatility, Active F. = Active Futures, 3M F. = 3-month Futures, L. Range = Lower Range, U. Range = Upper Range, ESM% = Expected spot move in %

Appendix

Terms and Abbreviations			
Term / Abbreviation	Description / Definition	Term / Abbreviation	Description / Definition
Backwardation	When the spot price trades above the prices of futures	BCF	Billion cubic feet
BCM	Billion cubic meters	Bu	Bushel (1 ton = 36.7bu wheat/soybean; 39.37 bu corn)
CBOT	Chicago Board of Trade	CFTC	Commodity Futures Trading Commission
CFI	Cost, insurance and freight	CME	Chicago Mercantile Exchange
CNIA	China Non-Ferrous Metals Industry Association	COMEX	New York Commodities Exchange
CONAB	Companhia Nacional de Abastecimento (Brazilian government agency)	Contango	When the spot price trades below the prices of futures
COT	Commitment of Traders	CRB Index	Index Commodities Research Bureau Index
Crush margin	Difference between the value of the oil and meal produced from the soybeans	CTA	Commodity Trading adviser
ETC	Exchange Traded Commodity	ETF	Exchange Traded Fund
Excess Return (ER)	Excess return = spot return + roll yield return (rolling of futures contracts)	FAO	Food and Agriculture Organisation
FOB	Free on Board	HH Natural Gas	Henry Hub Natural Gas
I.E.A	International Energy Agency	IAI	International Aluminium Institute
ICCO	International Cocoa Organisation	ICE	Intercontinental Exchange
ICO	International Coffee Organisation	ICSG	International Copper Study Group
IIZSG	International Lead and Zinc Study Group	IMF	International Monetary Fund
INSG	International Nickel Study Group	JM	Johnson Matthey
JODI	Joint Oil Data Initiative	KCBT	Kansas City Board of Trade
LME	London Metal Exchange	LNG	Liquefied Natural Gas
mbpd	Million barrels per day	Mtoe	Million tons oil equivalent
NOAA	National Oceanic and Atmospheric Administration	NYBOT	New York Board of Trade
NYMEX	New York Mercantile Exchange	OECD	Organisation for Economic Co-operation & Development
OPEC	Organization of Petroleum Exporting Countries	PGM	Platinum Group Metals
RICI	Rogers International Commodity Index	S&P GSCI	Standard and Poor's-Goldman Sachs Commodity Index
SHFE	Shanghai Futures Exchange	SI	Silver Institute
TC/RC	Treatment/Refining Charges	TCF	Trillion cubic feet
Thomson Reuters GFMS	Research consultancy specializing in precious metals, base metals and steel market research	TOCOM	Tokyo Commodity Exchange
Total Return (TR)	Total return = excess return + return from the cash collateral	U.S.D.A	US Department of Agriculture
UBS CMCI	UBS Constant Maturity Commodity Index	UNICA	Sugar and Alcohol Millers Association of São Paulo state
USD/BBL	USD per barrel	USD/bu	US Dollar /bushel
USD/GL	USD per gallon	USD/lb	USD per pound
USD/MMBtu	USD per 1 million British thermal unit	USD/MT	USD per metric ton
USD/oz	USD per oz, (1 oz = 31.10 grams)	USGS	U.S. Geological Survey
WBMS	World Bureau of Metal Statistics	WGC	World Gold Council
WTI Crude Oil	West Texas Intermediate Crude Oil	WTO	World Trade Organisation

Appendix

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