Agri Commodity Markets Research

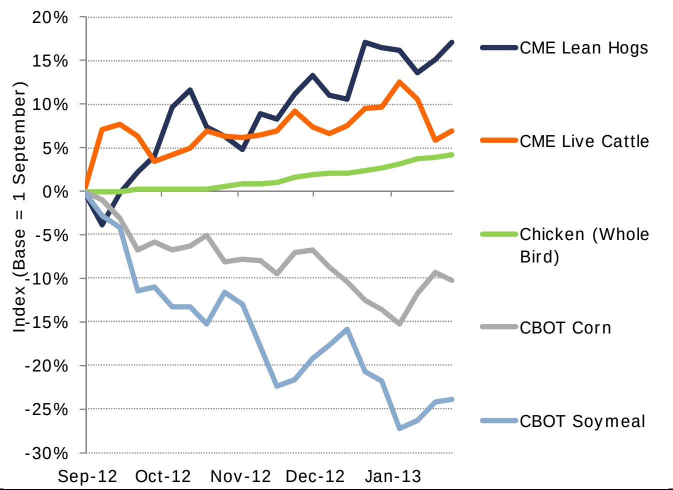
Over-cornsumption Supports Higher Corn Price Outlook

Rabobank

We believe price weakness in old crop CBOT Corn offers a buying opportunity as soft export demand is more than offset by US feed consumption, which appears to be running at a pace well above the level needed to reach USDA's forecast. The USDA forecasts US corn feed and residual use at 4,450 million bushels in 2012/13—a 2% fall YOY. However, feed and residual disappearance in Q1 2012/13 was up 12% YOY to 2,053 million bushels—implying that a 12% YOY decline is needed for the remaining three quarters of 2012/13 to meet USDA forecasts. We believe this is unlikely, given limited declines in animal numbers, and expect this will prove bullish for old crop CBOT Corn prices. Since September 2012, feed costs have declined with front-month CBOT Corn down 10% and CBOT Soymeal down 24%. Over the same time, the prices of finished animal protein products have risen significantly, supporting margins for many feed users. Prices for nearby CME Lean Hogs contracts are up (+17%), with smaller gains in CME Live Cattle contracts (+7%) and Georgia Dock Whole Bird prices (+4%). We believe this has supported corn demand at a pace of 100 million bushels above the level needed to reach the USDA's 4,450 million bushel forecast. If prices do not rally in the near term, we believe that feed use estimates will have to rise further, supporting the case for renewed strength in old crop CBOT Corn prices.

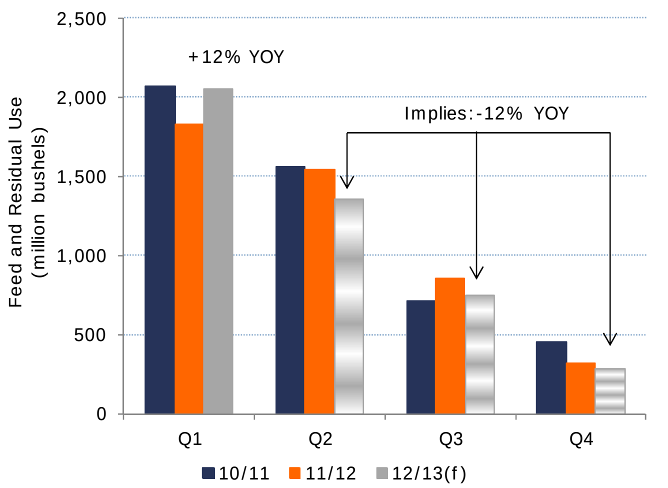
Contractions in animal numbers have been smaller than expected, with declines in cattle numbers offset by moderate increases in other sectors. We expect this will result in a mere 0.7% YOY decline in animal numbers for 2012/13. Grain consuming animal units (GCAU), a standardised measure of animal numbers, are currently forecast by the USDA to decline 1.3% YOY in 2012/13 to 91.6 million. The USDA's January Cattle on Feed report showed a 5.6% decline in placements YOY as at December 31—slightly larger than trade expectations of 4.4%. The decline in beef cattle numbers, however, has tempered the impact on total feed use as beef cattle are forecast by the USDA to make up 22.4% of GCAU in 2012/13. Other data shows poultry, hog and dairy animal numbers expanding, and they make up 73% of expected GCAU in 2012/13. In total, use-weighted estimates of recent changes suggest only a 0.7% YOY decline in GCAU weighted animal numbers so far in 2012/13—versus the USDA's 1.3% forecast YOY decline.

Feed ingredient prices have declined while protein prices have risen since September 2012–supporting margins



Source: Rabobank, Bloomberg

US corn feed and residual use must fall 12% YOY in the remaining quarters of 2012/13 to meet USDA estimates



Source: Rabobank, USDA

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Indicators suggest that aggregate declines in animal numbers in 2012/13 have been marginal so far			
Indicator	**Month of Data**	**GCAU (share of total)**	**YOY Change**
Broiler Eggs Set	Avg. 1 to 25 January	32.5%	+1.76%
Sows Kept for Breeding	31 December	29.3%	+0.20%
Milk Cow Numbers	30 November	11.3%	+0.16%
Cattle on Feed	31 December	22.4%	-5.60%
Other Livestock	N/A	4.4%	-1.00%*
		Weighted Total:	**-0.7%**

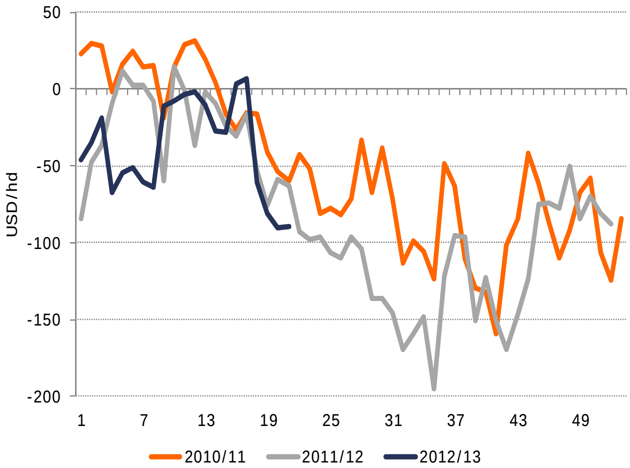
Source: Rabobank, USDA, Bloomberg; *Rabobank estimate

Feed efficiency rates are unlikely to improve as much as the USDA is forecasting due to reduced DDG availability. Given current USDA forecasts imply a 1.3% YOY reduction in GCAU, the majority of the USDA's 12% reduction in corn feed use in Q2-Q4 2012/13 is due to expected improvement in feed efficiency. Currently, the USDA forecasts feed use efficiency to improve 2% YOY in 2012/13 to 1.38 tonnes per GCAU–the lowest on record. However, DDG's are not included in USDA calculations and has been behind much of the historical improvement in feeding efficiency. Feed efficiency improved from 1.88 in 2004/05 to 1.41 in 2011/12. Over the same time, we estimate DDG feed consumption rose from 7.4 million tonnes to 29.1 million tonnes. Due to the YOY declines in ethanol in 2012/13 we expect DDG feed availability to drop 13% YOY.

Stocks of non-corn feedstocks in the US are at multi-decade lows, reducing the possibility to substitute away from corn in feed rations.

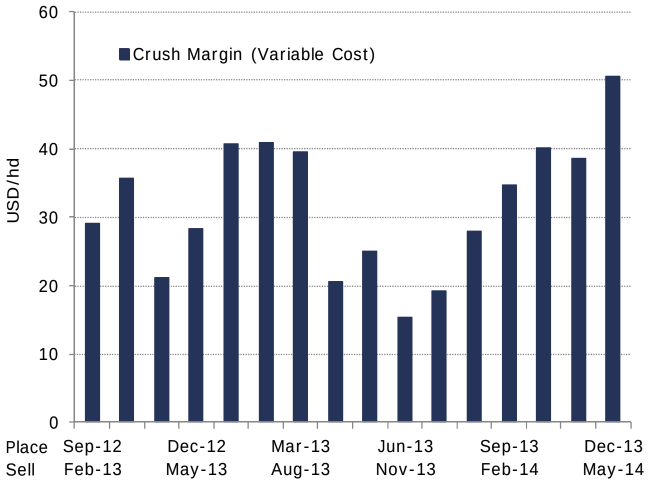
- DDG production is forecast to fall 10% YOY as ethanol production drops 511 million bushels YOY to 4,500 million bushels in 2012/13. Lower ethanol production explains (in part) the increased rationing response by beef producers relative to other parts of the animal protein complex with cattle averaging 68% to 70% of total US domestic DDG consumption since 2008. Decreased DDG availability YOY will require switching other grains, including corn, into feed rations and limit reductions in corn use.
- Hay stocks fell to 77 million tonnes as at 1 Dec 2012, the lowest level since 1957. This is a 14 million tonne decline YOY. Combined with the lowest sorghum and barley stocks in 50 years, this may incrementally increase the incentive for cattle-calf operators to place cattle on feed.
- The wheat outlook is highly uncertain and while wheat feeding does (and will continue to) occur in the Southern Plains, the 2013/14 wheat crop in the US is currently in the worst condition on record for this early stage of the season. Crop conditions are less than 20% good/excellent in every southern and central plains state. Subsequently, we expect wheat basis to rise and act to limit feed use substitution.

CME Cattle Crush is negative but in line with levels for the previous two marketing years



Source: Rabobank, Bloomberg,

CME Lean Hog crush margins are positive at current prices and improve towards the end of 2013



Source: Rabobank, ISU

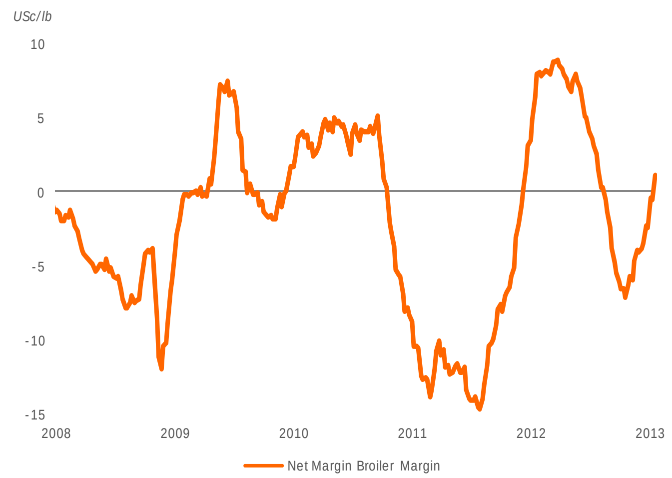
Even if margins were to fall, end users may choose to endure losses in the near term in expectation of lower feed costs once the 2013/14 harvest comes online in 2H 2013. Rabobank expects US corn production to be up 33% YOY in 2013/14, with December CBOT Corn futures currently at a USD 1.44/bushel discount to nearby prices at USD 5.75/bushel. Following this, Rabobank expects to see December CBOT Corn prices of USD 6.00/bushel, USD 0.25/bushel above current December futures, in Q4 2013. When combined with easing basis levels at harvest time, lower prices should see animal protein margins improve in Q1 2013/14. This would allow end users to lock in increased profitability further down the curve and increase reluctance to reduce herds in the short term. This is already being priced in, with hog crush margins of USD 0.40/cwt for early 2014—18% above nearby levels.

Declining demand for US corn for ethanol and export will not provide enough supply to prevent the need for further rationing of feed use. US corn exports and ethanol production have remained weak recently with Rabobank expecting the upcoming February WASDE report to cut either ethanol (currently 4,500 million bushels) or export (currently 950 million bushels) estimates by up to 50 million bushels. This may temporarily increase the scope for the USDA to increase US feed and residual use forecasts. However, this will not be enough to offset the 100 million bushel higher feed demand we are currently forecasting. Additionally, data suggests animal numbers were flat YOY during Q1 2012/13 despite feed being demand up 12% YOY. This indicates the USDA estimates of 2012/13 US corn supplies may have been overstated which could have inflated the implied feed and residual use during Q1 2012/13. By adding the final quarter of 2011/12 to first quarter 2012/13 use we can see that total use for the two quarters only increased 4% YOY. Subsequently, the required reductions in feed use for the remainder of the 2012/13 marketing year need to be smaller. Adjusting for these differences, Rabobank believes that US feed and residual use still has to fall 6%-7% YOY in coming quarters. Although this still remains far below the use levels suggested by current animal numbers.

Hog and poultry producers are expected to maintain animal numbers as the profitability outlook improves into mid-2013, although nearby margins remain mixed. The majority of US poultry companies were profitable in Q3 2013 and most remained so into October and November. However, December showed losses for most producers and this is expected to continue into January, with better conditions after that. This was recently echoed by Donnie Smith, CEO of Tyson's, who commented on their Q1 2013 earnings call "if you look at industry benchmarking services, 75% to 80% of the industry on a contribution basis is (currently) profitable". The situation in the hog sector is similar with modest net losses expected for the average unhedged US midwest producer through April with USD 15 to USD 20 per head profits anticipated during the seasonal peak in the summer months. On this basis, modest per head profits are indicated from Feb 2013 through Jan 2014 for hog producers. Overall, while margins remain tight for US poultry and hog industries, Rabobank sees an improved outlook given the recent decline in feed costs and no indication of industry contractions as implied by USDA figures for the coming quarters.

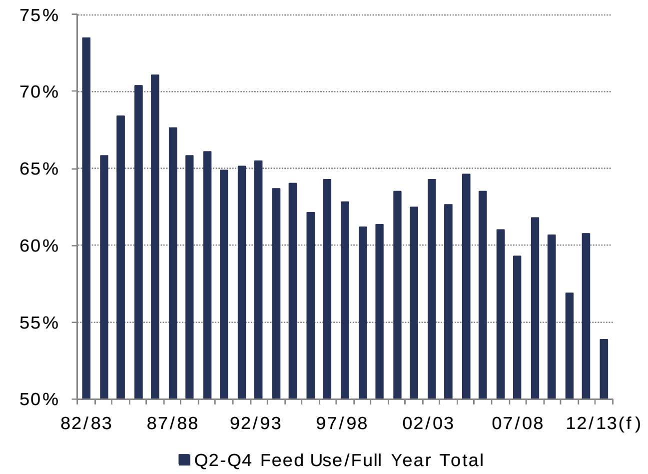
Rabobank believes that strong US corn feed demand will result in Q2 2012/13 demand well above the pace needed to reach USDA's forecast and prove bullish CBOT Corn prices. Feed and residual use will have to fall 275 million bushels to 325 million bushels YOY in Q2-Q4 2012/13 to reach the current USDA forecast. This implies Q2-Q4 feed use of only 54% of the full year total, 3 percentage points below the previous record inter-year decline in 2010/11, and 10 percentage points below the 30-year average. As a result, Rabobank believes a mid-season rally is necessary to achieve such a historic reduction in corn feed use in 2012/13. Basis risk remains, however, with price appreciation in cash markets not necessarily translating to moves in futures markets.

Broiler margins have returned to profitability as Georgia Dock Whole Bird prices reached record highs of USD 1.0/lb



Source: Rabobank, Bloomberg,

Feed and residual for Q2-Q4 as share of the total marketing year need to fall to record low levels to reach USDA forecasts



Source: Rabobank, USDA

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