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HANDS-ON CHINA REPORT
August 12, 2010

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A Perfect Storm? China Agriculture and Inflation

Overview

Severe droughts in Russia combined with the worst floods seen in China in a decade have threatened to give rise to a perfect storm in food markets. Inflation in China has again edged above the official target of 3%, climbing to 3.3% in July chiefly as a result of price pressures flaring up in food categories (+6.8% inflation in food prices in July vs. a 1.6% increase in non-food prices; food collectively accounts for around a third of the country's CPI basket). Rebounding pork prices since mid-June and flood-related disruptions to vegetable and grain cultivation played a key role in lifting the index. However, as compared to the situation during 2007-2008 (when food-driven CPI inflation reached a peak of 8.7% in March 2008), we expect these factors to have a short-term inflationary effect, with domestic supply conditions gradually returning to normal in the remainder of the year. This is due to expectations of a generally good grain harvest for the full year, boosted by a larger acreage planted with autumn grains, and greater government intervention in the pork market to contain extreme price fluctuations. At the current juncture, the impact of recent domestic and international agricultural disruptions on key Chinese food industries appears relatively benign and short-term in nature. The pork industry stands out as an area that is benefiting from an upturn in the hog-price cycle after a challenging first-half.

- The cyclical upturn in pork prices in 2H10 will benefit the upstream meat processing industry.
- Although vegetable prices have increased sharply (11.3% from June to July and a further 3.4% in the first week of August), experts suggest that weather-related disruptions should be a temporary phenomenon. Earnings of large diversified farmers may see limited impact since changes in wholesale prices across the product mix have been relatively small and export prices are largely based on contract.
- Moderate food price inflation generally benefits sales and profit margins for supermarkets. Except for recent price increases for meat, food prices have largely held steady in the past several weeks and operators remain confident of their ability to pass on costs to consumers in the event of gradual price increases
- Although international futures prices of feed-quality barley have more than doubled in the last two months, prices of malting barley futures have risen less dramatically by 32.8% since May and have corrected 11% since last weeks' peak. Changes in futures prices may not accurately reflect underlying cost increases for brewers, as many maintain several months of inventory and rely more heavily on private contracts with suppliers.

China's grain market – with the notable exception of soybeans (classified as grain in China) – is relatively insulated from the international picture, since China is largely self-sufficient and domestic prices are influenced by government control. However, due to a price differential in favor of imported corn and a tight domestic supply and demand picture, Chinese corn imports have been much

stronger in 2010.

According to the USDA, China ordered 1.2 million tons of US corn in the year to July 22nd, compared to total imports of 50,000 tons from the US last year. In the last few months, China has shifted into a small net-importer of corn. Although Chinese corn imports are likely to rise, a transition to a large-scale net import position is unlikely to occur in the near-term. The country's policy of self-sufficiency suggests that imports will primarily serve to fill domestic supply shortfalls and contain domestic prices. Under such scenarios, global prices would receive support from Chinese purchasing.

Against a backdrop of rising food demand from major developing economies like China, climate change, limited arable land and competing grain demand from bio-fuel production, global grain trading companies are in an opportune position, as they play an important role in bridging imbalances in global food supply.

I. Impact of China Flooding on Grain Prices

Chinese agricultural stocks have outperformed in recent trading as investors anticipate higher food prices resulting from recent floods in China. China has been suffering from the worst flooding in a decade, which aside from exacting a considerable human toll, has also affected agricultural production, destroying some quantity of vegetable crops and livestock, and hindering transportation. These factors have contributed to a 12% MoM increase in vegetable prices from June to July.

China's floods reportedly destroyed 9.2 million hectares of crops, as of July 30. While the overall extent of production losses is difficult to estimate with accuracy, Figure 1 below shows that among China's three major grain crops, rice is expected to experience the biggest impact from recent flooding. A range of reported estimates have suggested that the country's rice output for the current harvest could be reduced by 7-10% YoY. Nearly two-thirds of China's annual rice output is attributed to the middle season (harvested in September). Although media reports have indicated a rise in Chinese rice imports from Vietnam in response to this year's drought and flood damage, this appears primarily driven by cheaper prices in Vietnam. Food security is not expected to be a major issue, with an analyst at CNgrain (a subsidiary of the China Grains Reserves Corporation) estimating that government rice inventories amount to 2.1 months of consumption.

Figure 1: 10 Provinces With Largest Agricultural Area Affected by Recent Flooding & Share of National Grain Production

Province	Agricultural area Affected (th ha)#	% of arable land affected	Share of national production*		
			Wheat	Corn	Rice
Hubei	1666	35.7%	2.9%	1.4%	8.0%
Jiangxi	1483	52.5%	0.0%	0.0%	9.7%
Hunan	944	24.9%	0.0%	0.8%	13.2%
Anhui	555	9.7%	10.4%	1.7%	7.2%
Sichuan	524	8.8%	3.8%	3.8%	7.8%
Henan	407	5.1%	27.1%	9.7%	2.3%
Heilongjiang	356	3.0%	0.8%	11.0%	7.9%
Jilin	303	5.5%	0.0%	12.6%	3.0%
Liaoning	243	5.9%	0.0%	7.2%	2.6%
Shaanxi	240	5.9%	3.5%	2.9%	0.4%

Source: Government announcements, Factiva, J.P. Morgan estimates; * Data as of 2008

The China National Grain & Oils Information Center's 2010 production forecast was maintained at 168 million tons of corn. In contrast to rice, corn harvests are often strong in the aftermath of big floods, while China's annual wheat output is overwhelmingly produced during the winter wheat harvest. According to the Ministry of Agriculture, this year's winter wheat harvest (which occurred in May-June) slightly exceeded last year's harvest at 108.8 million tons in spite of adverse weather conditions. The

total wheat output for the year was projected to reach 115 million tons – a seventh consecutive yearly increase, against estimated annual wheat consumption of ~105 million tons.

Although the drought in southwestern China earlier this year prompted the summer's grain output to decline 0.3% YoY to 123.1 million tons, the acreage planted with autumn grains is higher than last year and the Ministry of Agriculture earlier suggested that crops were growing better this year than in 2009.

II. Chinese and International Grain Prices

China's domestic grain prices have recorded little change since the beginning of floods in May. According to data from agricultural consulting firm JC Intelligence and the Ministry of Commerce, wholesale wheat, corn, soybean and retail rice prices have changed +2%, +3.6%, -0.5% and +2.4%, respectively, during this period (see Figure 2).

Figure 2a: Chinese wheat prices (RMB per ton)



Figure 2b: Chinese corn prices (RMB per ton)

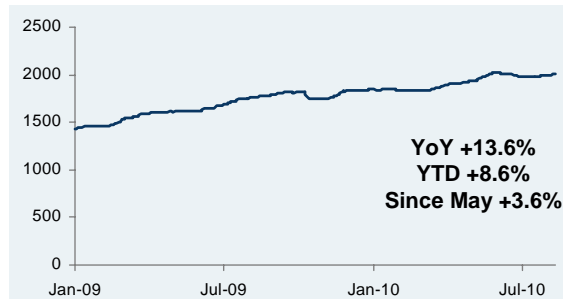


Figure 2c: Chinese soybean prices (RMB per ton)

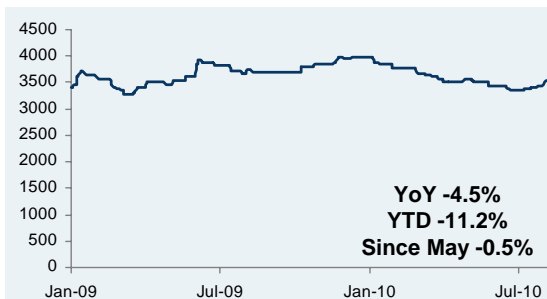
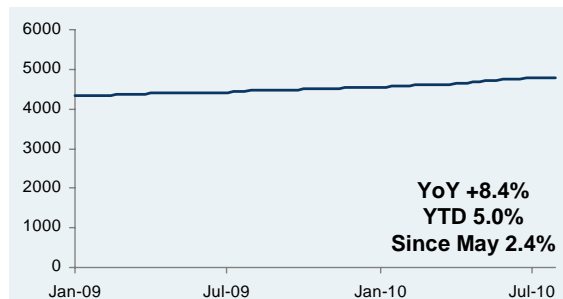


Figure 2d: Chinese rice prices (RMB per ton) *



Source: JC Intelligence China, Bloomberg * Based on retail price of rice quoted per kg, monthly data

With the exception of soybeans, Chinese grain prices remain relatively insulated from fluctuations in the international market, due to a policy of grain self-sufficiency, a regulated grain marketing system and the use of government reserves as a stabilizing instrument. The country's net imports of grains are dominated by soybeans, with average net inflows of 4.3 million tons per month in 2010. Agricultural products (mostly soybeans and cotton) account for 13% of trade between China and the U.S. and constitute the only trade category where the U.S. is in a position of surplus. Bilateral trade of soybeans with the U.S. totaled around USD9 billion in 2009, and is expected to continue trending higher. In the first half of 2010, abundant supply of soybeans put downward pressure on global prices, but in July, dry weather in the US brought the spot price up 4.7% in the US and 8% in Argentina and Brazil. However these levels were still lower than in 2009. The USDA estimates that 2010/11 soybean production will be 251 million tons, down 3.24% from 2009/10, however, it is still the second highest production year. World consumption is estimated at 248 mn tons, making 2010/11 the second consecutive year in which production exceeds demand.

A sharp increase of Chinese purchases of US corn in recent months has generated considerable anticipation of a greater reliance on imports. According to the USDA, in the year-to-July 22, China has ordered about 1.2 million tons of corn from the US compared to total imports of 50,000 tons of corn

from the US last year. The variety of industries that use corn, including animal feed, fuel, chemicals, and food, will continue to provide diversified support to the demand side. While on the supply end, limitations of sown land, water quality etc., will continue to limit growth.

In comparison to China's domestic market, wheat, corn, soybean and rice futures have increased 41.8%, 8.5%, 6.2% and -13.7% respectively since May on the Chicago Board of Trade (see Figure 3). International wheat prices rallied sharply in recent weeks after Russia declared a ban on grain exports due to the impact of drought and fire on the country's harvest. Agricultural disruptions have also occurred in parts of Canada, Europe, Kazakhstan and India.

Global grain trading companies are currently in an opportune position, as they play an important role in bridging imbalances in global food supply. Erratic weather patterns this year have brought large disparities in crop yields across different countries. Export bans resulting from such disruptions have further aggravated the global supply picture. As a consequence, trading opportunities have arisen for large multinational grain trading companies, which engage in procurement, transportation and processing for agricultural commodities. Such opportunities are likely to persist in future against a backdrop of rising global food demand, climate change, limited arable land and competing grain demand from bio-fuel production.

Figure 3a: CBOT wheat prices (US\$ per bushel)



Figure 3b: CBOT corn prices (US\$ per bushel)



Figure 3c: CBOT soybean prices (RMB per bushel)



Figure 3d: CBOT rice prices (USD per CWT)



Source: JC Intelligence China, BloombergG

Surging Barley Prices – Impact on Breweries

Compared to Chinese food processing companies that source most of their inputs domestically, major beer brewers import a sizable portion of their barley supply. Although futures prices of feed-quality barley have more than doubled in the last two months, prices of malting barley futures have risen less dramatically by 32.8% since May due to expectations of a poor harvest in Russia and Canada (but have declined 11% from last week's peak). The two countries together produce 20% of the world's supply. It is also important to note that at the current level, the price of malt barley is well below the historic peak reached in 2008.

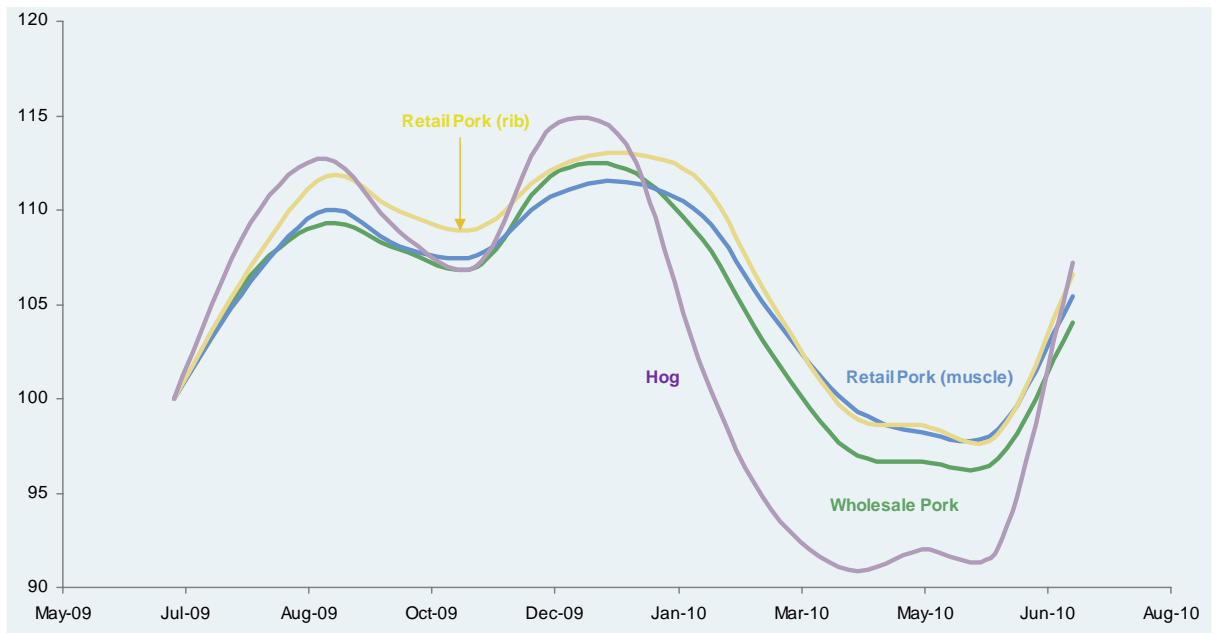
III. Pork and Vegetable Prices Have Driven Food Inflation

Pork and Hog prices

In recent weeks, pork prices at both the wholesale and retail level have staged a rebound. For the month of July, prices of wholesale and retail pork (both muscle and rib) have risen 7-8%. Given that pork constitutes 9.26% of the food component and that food claims about a third of the CPI basket, such an increase would have caused a corresponding increase in the July CPI figure of ~0.24. Pork prices have been through a relatively rocky ride in 1H10 as levels fell dramatically since the beginning of the year. Starting in April, the government resorted to market intervention 5 times, stockpiling pork in warehouses to provide support to prices. However, since pork has a refrigeration life of approximately six months, it is possible that the stockpiled meat will find its way back into the market in the next few months. Further obscuring the outlook is that September is traditionally a high season for pork, providing strength for the demand side as well.

Moving up the supply chain, hog prices have fluctuated even more dramatically since the beginning of the year. In the last month alone, prices have increased by 16%. Despite the swift run-up, current levels are still modest by historical comparison, and the profitability of hog farmers remains low. The profitability of raising hogs is usually measured by the hog price to corn price ratio, with a breakeven point of approximately 6. The hog:corn ratio trended down continuously in 1H10 and reached its historical low at below 5 in June. The ratio has since rebounded and has just returned to levels above 6.

Figure 4: Price levels of retail pork, wholesale pork, and hog (Sept 07 level = 100)



Source: CEIC

In 2009, the NDRC issued a policy to prevent excessive declines in pork prices and provide a measure of support to farmers. According to the policy, if the hog:corn ratio remains between 5.5 and 6 for four consecutive weeks, the government will increase central and local frozen pork inventories. Below 5.5, the government will further step up efforts to stockpile pork, and also issue subsidies to encourage pork processing companies to increase inventories. In reality, the government must also consider CPI pressure when intervening in food markets. In January, the hog to corn ratio was around 6, yet the government sold frozen pork inventory at 40% below market price, which forced the ratio even lower to about 5. Given that currently the government is in possession of a material amount

of frozen pork, and that inflation has breached the comfort level of 3%, we expect liquidation in the coming months to ease inflation pressures.

Going forward, we favor companies that have a more integrated operation model, spanning more than just one function along the supply chain, as these companies will be much better poised to weather input price increases. We also favor companies that are better positioned to benefit from the push by the government for consolidation in the industry.

Vegetable prices

The average of 18 wholesale vegetable prices increased 11.3% from June to July and a further 3.4% in the first week of August, according to NDRC data. Due to storage difficulties, fresh vegetable prices have been the most volatile among major food groups. Although prices have increased for most fresh vegetable categories, weather-related disruptions should be a temporary phenomenon. Earnings of large diversified farmers may see limited impact since changes in wholesale prices across the product mix have been relatively small and export prices are largely based on contract.

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