



# Argentina Agribusiness Report Q1 2009

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*Including 5-year industry forecasts*



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# Argentina Agribusiness Report Q1 2009

Including 5-year industry forecasts by BMI

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## Executive Summary

The Argentine agricultural industry is characterised by strong production and large-scale mechanisation and enjoys a position as one of the world's foremost agricultural exporters, with the industry contributing over US\$16bn to GDP. With GDP forecast to increase by over 50% to 2012, the potential for agriculture to further drive growth in the country is enormous.

The country's per capita meat consumption is the highest in the world, while its competitiveness in beef production means that the industry plays a major role in political and economic decisions. In our Argentina Agribusiness Report Q109, we look at how the local agricultural sectors have responded to various internal and external supply and demand issues. For instance, high tariffs and bans on beef and grains exports have unleashed the wrath of the country's farmers, prompting fears of domestic supply disruptions and further unrest in these sensitive times. In light of such potentially destabilising aspects, we foresee the industry performing healthily to the end of our forecast period, although hiccups along the way are expected.

The year 2008 has been one in which increasing numbers of local farmers took up soybean production. Between 1994 and 2004, it is estimated that the total of land under soybean cultivation grew by 236%, which reflects global demand for biofuels as environmentally sustainable energy sources. Consequently, Argentina has become a top soybean producing and exporting nation, reaping the benefit from its vast expanses of land. It is now predicted that over 60% of Argentine farmland is now used for soybean cultivation. However, the incompatibility of soybean production with other crops has led to massive reductions in available land for grains and beef.

Although beef production is forecast to grow by 8.1% over the period of our outlook, the reduction in pastures has led to a growing number of US-style feedlots, where the animals are fed with soybean meal. This 'feedlot beef' is perceived to be of lower quality than the grass-reared beef for which the country is renowned and may in future reduce value sales, even as volume sales rise. Export bans and taxes have exacerbated a situation where beef producers have felt that President Cristina Fernández de Kirchner has undermined their efforts to prosper from foreign markets. This has led to strikes and blockades disrupting local supplies.

While the beef market experiences a period of turbulence, poultry and pig production has been thriving off the back of soybean and corn surpluses, enabling a potential reduction in beef demand and supply. We forecast poultry production to increase more than any other livestock, while pork consumption is likely to have a greater impact on farmers' rearing decisions.

## SWOT Analysis

### Argentina Agricultural SWOT

- Strengths**
- Argentina has vast areas of land and well-developed infrastructural systems in places that are conducive to strong crop and livestock production
  - The highest per capita meat consumption in the world means that there is sufficient scope for producers to make a profit through rearing, cultivation and processing crops and livestock for local markets, in addition to the healthy presence that many Argentine agricultural products have in global markets
  - The grass-fed wild nature of Argentine cattle for many years has seen its beef exports recognised as one of the premium meat products worldwide
  - The presence of reputed international companies domestically provides production and marketing expertise, which will enable producers to gain farther reaching exposure of their products.
- Weaknesses**
- Government intervention on beef and grains exports has often resulted in farmers' strikes and supply disruptions
  - Restricted supply has resulted in Argentina losing some of its valuable beef market to local rivals
  - High local beef consumption means that the meat's export potential is never fully realised, resulting in revenue losses when Argentine beef prices are so competitive globally
- Opportunities**
- A favourable outcome to the Doha Round negotiations may provide greater access to closely controlled EU markets, particularly for Argentine dairy products
  - The opportunities exist to further promote the viability of alternative sources of meat protein other than beef; this will require further investment in poultry and pig production, which are both forecast to expand over our forecast period
  - The increased presence of other meats in the local economy could reduce domestic beef consumption, thus making it more available for lucrative export markets
  - There is potential to improve on the country's capacity to produce sugar, which would help to make profits from a crop whose demand is likely to outstrip supply going forward
- Threats**
- Drought and heavy rainfall have the potential to destabilise production in crop, dairy and livestock production
  - Future uncertainty surrounding high export taxes may serve to diminish the profitability and production/consumption habits of the local community
  - The domestic soybean industry is going from strength to strength, which is bad news for cow producers, whose animals have to compete for increasingly scarce acreage of land
  - The growing presence of US-style grain feedlots may serve to make Argentine beef less attractive as it loses its 'naturally reared' status and has to succumb to hormone injections to bolster growth

## Sub-sector Supply & Demand Analysis

### Argentina Grains Outlook

#### Wheat

**BMI Supply View:** We expect Argentine wheat production to undulate but with a slight downward trend over our five-year forecast period, with output falling by 2.5% to 14.8mn tonnes by 2012. The pattern of wheat production in the country has shown a fairly consistent pattern of alternating been growth and contraction year-on-year, a trend which we envisage continuing. We feel that wheat output expansion across the world is inevitable as food stability remains a pertinent issue and harvest benefits from improving weather conditions. The export markets that Argentina once enjoyed may lose their desirability as extra global output serves to drive down prices, thus decreasing export profitability. Argentine harvests have been further hindered by drought, and consequently yields have fallen from highs of 2.90 tonnes per ha, in 2006, to 2.88 tonnes per ha for the last two years. Moreover, uncertainties surrounding the possibility of higher wheat export taxes serve as a disincentive for farmers to plant wheat when more profitable crops exist, thus further diminishing production. Production is not perceived to diminish to such an extent that domestic consumption will not be met.

**BMI Demand View:** We believe that consumers will increase their preference for wheat over the next five years, as lower global wheat prices, resulting from high global production, begin to permeate the Argentine economy, making consumption desirable again. We forecast a slight growth rate of 1.6% to 4.6mn tonnes consumed in 2012. Consumption looks likely to rise again after decreasing slightly in the last two years, a period when corn consumption increased by as much as 20%.

**Table: Argentina Wheat Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Wheat Production, '000 tonnes <sup>1</sup>	15200.0	15000.0	14926.6	14824.4	14687.5	14535.1
Wheat Consumption, '000 tonnes <sup>2</sup>	4900.0	4900.0	4826.8	4826.8	4808.6	4782.6
Wheat Net Trade Balance, '000 tonnes <sup>3</sup>	10495.0	10000.0	10099.8	9997.5	9879.0	9752.5

Notes: <sup>1</sup> BMI forecasts. Sources: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.



Table: Argentina Wheat Production, Consumption &amp; Trade Forecast Data

	2002	2003	2004	2005	2006	2007
Wheat Production, '000 tonnes <sup>1</sup>	15500.0	12300.0	14500.0	16000.0	14500.0	15200.0
Wheat Consumption, '000 tonnes <sup>2</sup>	4887.0	5157.0	5232.0	5010.0	5000.0	4900.0
Wheat Net Trade Balance, '000 tonnes <sup>3</sup>	10063.0	6752.0	9403.0	11832.0	9553.0	10495.0

Sources: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

## Corn

**BMI Supply View:** Corn production for FY08 is expected to fall 5.9% year-on-year on the previous year's figure to 21.1mn tonnes. We believe that the Argentina's Oficina Nacional de Control Comercial Agropecuario's (ONCCA) decision to ban corn exports indefinitely may result in lower areas harvested. The ban was implemented as a way of saving domestic consumption, which was at risk due to diminishing stocks. Additionally, yields which stood at record highs of 8.04 tonnes per ha in FY07 are projected to fall to 7.50 tonnes per ha, this year, as fertiliser usage declines because of rising prices and drought conditions affecting harvests. In the mid-term a reluctance to continue missing out on revenues from high global prices should see the government end the export ban. Export opportunities arising from higher global consumption and biofuel production should see Argentine farmers in a good position to meet these requirements. We forecast 23.5mn tonnes being produced in 2012, a moderate growth rate of 4.6% over our forecast period.

**BMI Demand View:** Domestic consumption has risen steadily since FY04, reaching highs of 6.7mn tonnes last year. We forecast it to level out at 6.7mn tonnes in FY08 and increase marginally to 6.8mn tonnes next year as the tight supply takes effect. The strong production growth of feed alternatives, such as barley and sorghum, may make these crops more desirable, thus slowing the consumption growth in corn. We envisage corn consumption growing slightly faster than production growth over our forecast period, as domestic feed requirements are generally satisfied before surpluses are stockpiled for export. A growth rate of 5.2% by 2012 would take consumption to 7.05mn tonnes.

**Table: Argentina Corn Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Corn Production, '000 tonnes <sup>1</sup>	22500.0	21825.0	22455.0	22732.1	23099.1	23536.5
Corn Consumption, '000 tonnes <sup>2</sup>	6700.0	6700.0	6822.4	6858.4	6971.8	7051.3
Corn Net Trade Balance, '000 tonnes <sup>3</sup>	15300.0	16000.0	15632.6	15873.7	16127.3	16485.2

Notes: <sup>1</sup> BMI forecasts. Sources: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Corn Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Corn Production, '000 tonnes <sup>1</sup>	14700.0	15500.0	15000.0	20500.0	15800.0	22500.0
Corn Consumption, '000 tonnes <sup>2</sup>	4150.0	4100.0	4400.0	5200.0	6200.0	6700.0
Corn Net Trade Balance, '000 tonnes <sup>3</sup>	10862.0	11196.0	10909.0	14564.0	9400.0	15300.0

Source: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

## Barley

**BMI Supply View:** Barley production, having seen year-on-year production growth of 58% in the 2006/07, looks set to have a healthy 10.3% increase over the forecast period. We estimate yields to improve by 2.60% over this period, to reach 3.55 metric tonnes per ha, while the estimated planted area looks likely to decrease by 2012; we attribute these figures to farmers planting the crop more intensely because of its ability to withstand harsher weather conditions than corn or wheat. Furthermore, Brazil has become particularly keen to procure abundant supplies of barley from its neighbour, as the Brazilian beer market has become the third largest in the world and needs to secure the raw inputs to continue feeding demand.

**BMI Demand View:** We envisage domestic consumption increasing by a healthy 31.6% by 2012, as supply issues with corn and wheat make barley a more viable source of animal feed. As yields improve, and while price concerns prevail, the extra barley in the domestic market would make it an economically preferable choice of crop for producers. Argentineans enjoy the highest alcohol intake per person than any other country in South America and, as such, beer consumption is anticipated to be a major factor in driving barley consumption growth.

**Table: Argentina Barley Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Barley Production, '000 tonnes <sup>1</sup>	1265.0	1200.0	1303.9	1326.7	1356.9	1395.8
Barley Consumption, '000 tonnes <sup>2</sup>	650.0	800.0	840.8	841.1	848.4	855.4
Barley Net Trade Balance, '000 tonnes <sup>3</sup>	500.0	500.0	463.1	485.7	508.5	540.4

Notes: <sup>1</sup> BMI forecasts. Sources: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Barley Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Barley Production, '000 tonnes <sup>1</sup>	521.0	543.0	1000.0	886.0	800.0	1265.0
Barley Consumption, '000 tonnes <sup>2</sup>	450.0	450.0	600.0	650.0	550.0	650.0
Barley Net Trade Balance, '000 tonnes <sup>3</sup>	89.0	102.0	191.0	316.0	353.0	500.0

Sources: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

## Sorghum

**BMI Supply View:** Sorghum is projected to experience the highest growth rate of all Argentine grains over our five-year period, expanding by 11.4% with an output of 3.68mn tonnes by 2012. Yields should also increase by 3.4% to 5.14 metric tonnes per ha over the same period, as a surge in domestic consumption and export demand leads to more intense cultivation. FY07 witnessed exports increase by 500% year-on-year to reach 1mn tonnes, which we believe to be attributable to the crop's versatility, making it particularly valuable in the current climate of economic prudence.

**BMI Demand View:** We anticipate that demand for sorghum will grow in human and animal populations, resulting in consumption of 2.48mn tonnes by 2012, an increase of 12.8% over our forecast period, as a consequence of wheat and corn supply volatility.

**Table: Argentina Sorghum Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Sorghum Production, '000 tonnes <sup>1</sup>	3300.0	3500.0	3586.6	3608.7	3638.5	3674.9
Sorghum Consumption, '000 tonnes <sup>2</sup>	2200.0	2300.0	2369.1	2402.6	2446.2	2482.0
Sorghum Net Trade Balance, '000 tonnes <sup>3</sup>	1000.0	1100.0	1217.5	1206.2	1192.2	1192.8

Notes: <sup>1</sup> BMI forecasts. Sources: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Sorghum Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Sorghum Production, '000 tonnes <sup>1</sup>	2750.0	2800.0	2200.0	2900.0	2200.0	3300.0
Sorghum Consumption, '000 tonnes <sup>2</sup>	2300.0	2250.0	2000.0	2600.0	2200.0	2200.0
Sorghum Net Trade Balance, '000 tonnes <sup>3</sup>	418.0	638.0	191.0	351.0	200.0	1000.0

Sources: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

## Risks To Outlook

With wheat production seeming likely to diminish over the projection period, owing to global overproduction and reduced profitability for farmers, the upswing in consumption that we predict over this period may result in more intense pressure to build up stocks. If uncertainty surrounding export taxes prevails, there is a possibility that farmers could be deterred from producing wheat to such an extent that feeding domestic consumption becomes a serious issue.

BMI's corn outlook is dependent on the duration of the export ban that is in force. A particularly lengthy period of domestic-only corn production may serve as a disincentive for farmers to improve the size and quality of yields, which have already been declining. High input costs, and corn's yield volatility, would deem it a riskier crop to produce if lost export earnings endured for longer than the time it took to build sufficient domestic stockpiles. The resultant impact may see domestic consumers paying higher prices, thus leading us to revise our prediction of 5.2% consumption growth.

Barley and sorghum look set to enjoy periods of robust demand and consumption, as hardier and relatively cheaper crops than corn and wheat. While sorghum's versatility as a source of feed, food and fuel make it an adequate substitute at a time when the main grains experience difficult times, barley is enjoying resurgence, on the back of growth in regional demand for beer. We perceive a potential threat to arise if the prices were to rise rapidly, resulting in higher levels of production for export, and subsequently higher taxes imposed by the government, leading, in turn, to the same issues that are prevalent in the corn and, to a lesser extent, the wheat market.

## Argentina Livestock Outlook

**BMI Supply View:** We envisage stable growth in production of all livestock categories, with poultry achieving the highest growth of 13.6% over the course of our five-year projection period to 1.48mn tonnes by 2012, as production benefits from low production costs, particularly with soya and crop feed being relatively abundant. Beef production contracted in 2006, due to high export taxes and quotas reducing the profitability for farmers. However, output has rallied in recent years as taxes have been reduced and higher food and fuel prices have been translated into higher meat prices. As such we expect robust growth, although at 8.1% to 3.43mn in 2012, considerably less than the 17.6% seen in the preceding five years, which is a reflection of changing dynamics within the market, most notably a larger shift towards poultry production. Government efforts to reduce the proportion of beef in the local diet - in order to free up more for export - has led to an increase in pork production, with us envisaging an 8.1% growth rate identical to that of beef, although we still believe the country will remain a net importer up until 2012.

**BMI Demand View:** Argentines consume more meat per capita than any other country in the world, with an estimated 66.2kg of beef alone consumed in 2007. Beef continues to be the most important source of animal protein, and consumption is forecast to increase by 4.2% to reach 2.76mn by 2012. With real GDP predicted to increase by more than 50% over the same period, the amount of beef consumed is certain to rise. However, this growth is around one-third of the consumption growth witnessed over the preceding five years and could be attributed to increased instances of supply disruptions - resulting from anti-inflationary policies, such as export bans and minimum weight controls - leading to consumers trading down to poultry, as uncertainties surround beef procurement escalate. Pork consumption has been rather consistent, only experiencing growth rates of 0.79% since 2005, although we see consumption to 2012 to improve by 5.4% as attempts to diversify pork consumption away from cold cuts to fresh pork have a positive impact. The most notable change in meat consumption comes in the form of poultry, which is likely to experience a healthy growth rate of 16.4% to 1.34mn tonnes by 2012, suggesting that its relative abundance and price competitiveness compared to beef is contributing to robust demand.

**Table: Argentina Beef & Veal Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Beef & Veal Production, '000 tonnes <sup>1</sup>	3175.00	3233.70	3349.10	3370.10	3398.30	3432.00
Beef & Veal Consumption, '000 tonnes <sup>2</sup>	2655.00	2664.10	2708.30	2721.50	2744.30	2766.40
Beef & Veal Net Trade Balance, '000 tonnes <sup>3</sup>	520.00	569.60	640.80	648.70	654.10	665.60

Notes: <sup>1</sup> BMI forecasts. Source: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Pork Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Pork Production, '000 tonnes <sup>1</sup>	188.10	194.40	199.00	200.10	201.50	203.30
Pork Consumption, '000 tonnes <sup>2</sup>	203.50	205.10	209.90	212.00	213.00	214.50
Pork Net Trade Balance, '000 tonnes <sup>3</sup>	-15.40	-10.80	-10.90	-12.00	-11.50	-11.20

Notes: <sup>1</sup> BMI forecasts. Source: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Poultry Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Poultry Production, '000 tonnes <sup>1</sup>	1300.00	1307.60	1368.00	1395.80	1432.90	1477.10
Poultry Consumption, '000 tonnes <sup>2</sup>	1154.00	1212.40	1257.10	1268.80	1302.10	1343.10
Poultry Net Trade Balance, '000 tonnes <sup>3</sup>	146.00	95.20	110.90	127.00	130.90	134.00

Notes: <sup>1</sup> BMI forecasts. Source: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

### Beef Interference

Argentine beef has always enjoyed a reputation as some of the best beef anywhere in the world. Cattle roam the vast grasslands, and consumers benefit from the superior taste and texture that this semi-wild existence gives the meat. While high feed and fuel prices permeate world livestock markets, Argentine grass-fed beef is considered more price competitive, thus helping its farmers to enjoy healthy export earnings. However, the competitiveness of beef exports juxtaposed with a weak currency has led to concerns of high domestic inflation. Beef contributes around 4.5% of the Argentine inflation index, and as such government anti-inflationary measures have been common, leading to unrest and farmers' strikes.

In 2006, beef exports were limited to 50% of the record highs of the 750,000 tonnes shipped the previous year. In 2007, a monthly export quota of around 40,000 tonnes per month was implemented, until March 2008. In addition, the Argentine government has a predilection towards imposing minimum weights for slaughter and export taxes, both of which tend to fluctuate depending on the state of domestic and foreign supply and demand ratios. The frequency of government interference has led disgruntled farmers to veto production on numerous occasions and also hold back animals from market. Consequently, the tightness of the domestic market has contributed to local inflation, which is the opposite effect of the reasons for

intervention initially. However, overall local beef prices continue to remain quite competitive, ensuring its place as the main national meat.

The complexity of the situation is further aggravated by recent outbreaks of foot and mouth disease, which has led to tighter controls and more stringent certification procedures, limiting access to lucrative US and EU markets. As such, Argentine beef has been displaced in foreign markets to a large extent by that of regional rivals such as Brazil, Uruguay and Paraguay, although the Argentine obsession for beef consumption should ensure that enough local supplies are always available, regardless of export orientation. For this reason we predict beef production and consumption to grow slower for this forecast period than in the preceding five years.

### **Poultry Power**

FY07 was a record year for poultry production in Argentina, with 1.3mn tonnes produced. These were double the levels witnessed only three years previously. The relatively low export taxes of 5%, in addition to abundant soybean crops and private investment in value addition, have contributed to making poultry production an increasingly attractive proposition as a way of expanding profit margins. Many companies have been expanding into vertically integrated production and processing plants as domestic consumption continues to keep pace with production. We believe domestic consumption to be the predominant factor in Argentine poultry production; while the proportion of output available for export stood at 11.2% last year, we envisage this figure falling to 9.1% by 2012, which is perhaps testament to high global production reducing its profitability in world markets. Overall, the domestic chicken industry looks in good shape going forward.

### **Worth Its Bacon?**

Roughly 7.6% of the 107kg per capita meat consumption in Argentina is comprised of pork, with consumption habits rarely changing since 2005. The majority of demand has been for processed pork, such as ham and bacon, although in recent years the taste for fresh pork has taken over. As the taste for pig meat has grown, so has the number of pigs, with 500,000 extra sows in production. This phenomenon is attributed to improved breeding and storage infrastructure, which has been largely provided from the government's fiscal budget. Due to these increased levels of investment, pork has become more price competitive, although it is still not much cheaper than the price of beef domestically, meaning that beef would still be the predominant choice for consumers looking to spend similar amounts of money. Further efforts to improve efficiency and competitiveness would enable pork consumption to benefit from lower prices.



**Table: Argentina Beef & Veal Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Beef & Veal Production, '000 tonnes <sup>1</sup>	2700.00	2800.00	3130.00	3200.00	3100.00	3175.00
Beef & Veal Consumption, '000 tonnes <sup>2</sup>	2364.00	2430.00	2519.00	2451.00	2553.00	2655.00
Beef & Veal Net Trade Balance, '000 tonnes <sup>3</sup>	336.00	370.00	611.00	749.00	547.00	520.00

Source: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Pork Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Pork Production, '000 tonnes <sup>1</sup>	165.30	149.80	178.50	188.10	188.10	188.10
Pork Consumption, '000 tonnes <sup>2</sup>	174.30	178.10	201.10	203.50	203.50	203.50
Pork Net Trade Balance, '000 tonnes <sup>3</sup>	-9.00	-28.40	-22.70	-15.40	-15.40	-15.40

Source: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Poultry Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Poultry Production, '000 tonnes <sup>1</sup>	640.00	750.00	910.00	1030.00	1200.00	1300.00
Poultry Consumption, '000 tonnes <sup>2</sup>	618.00	719.00	845.00	949.00	1123.00	1154.00
Poultry Net Trade Balance, '000 tonnes <sup>3</sup>	22.00	31.00	65.00	81.00	77.00	146.00

Source: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

## Risks To Outlook

The quality of Argentine beef is paramount to its desirability, particularly in foreign markets. The absence of hormones in the meat makes it attractive to EU consumers. This opportunity is enhanced by the ban by

the EU on Brazilian beef imports, due to fears over mad cow disease. Brazil is highly competitive at supplying beef to EU consumers, and the void left could create an avenue for lucrative export earnings.

On the negative side, the threat of price controls is ever present, and, as such, exporters may start to lower production considerably if they feel that losses in profitability are threatening their livelihoods. With the abundance of profitable soybean crops already causing land constraints, the opportunity to cash in on soybean cultivation may change future farming habits. An example is the growing numbers of cattle feedlots subsidised by the government with soybean taxes. Farmers could cultivate soybean, while producing cattle on soybean at lower prices, thus using more farmland for soybean and reducing the grazing pastures of cattle. In the long term this may result in diminishing demand for Argentine beef, both domestically and abroad, as the feedlot-raised cows require hormones to boost their weight, while the meat is of inferior quality.

Poultry production, which is mainly used to fuel domestic consumption, is particularly sensitive to external factors, such as the recent avian influenza outbreaks, which could result in a vicious cycle of consumption apprehensiveness and under-production. However, visible remedial action often goes some way to restoring consumer confidence.

## Argentina Dairy Outlook

**BMI Supply View:** The dairy outlook for Argentina is particularly robust, as the country continues to be a net dairy exporter. Milk production growth is forecast to more than double over our five-year forecast period on the output expansion seen in the 2003-2007 period. A growth rate of 24.0% to 11.56mn tonnes by 2012 is the result of increased global demand for dairy products and Argentina's position as South America's top dairy exporter, enabling it to meet the increasingly diverse consumption needs of emerging markets in Asia, the Middle East and its regional neighbours.

As countries with increasing disposable incomes look to diversify their consumption habits, in conjunction with growing domestic demand, cheese processing and whole milk powder (WMP) production look set to become the main sources of dairy value-added revenues, with respective growth rates of 27.1% and 28.6% in output by 2012. While these products are likely to feed burgeoning export markets, butter production, which mainly feeds domestic consumption, is forecast to grow rather more modestly, with 49,000 tonnes forecast for 2012, an increase of just 3.5% over the entire forecast period.

**BMI Demand View:** As host to the second largest retail market in South America, Argentine demand for locally processed cheese and WMP looks likely to keep pace with the country's ability to produce these goods. While cheese consumption is forecast to increase by 26.8% to 558,000 tonnes by 2012, we estimate WMP to experience similarly robust demand of 25.2% over the same period so that 106,000 tonnes are consumed domestically. With year-on-year GDP growth of around 8% and unemployment forecast to fall slightly to 8.2% this year, the increased spending power of the Argentine public is certainly reflected in an increased desire to consume high-value dairy products.

**Table: Argentina Milk Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Milk Production, '000 tonnes <sup>1</sup>	9400.0	10098.3	10601.1	10962.3	11348.1	11653.4
Liquid Milk Consumption, '000 tonnes <sup>1</sup>	2000.0	2070.1	2101.6	2111.7	2137.3	2165.8

Notes: <sup>f</sup> BMI forecasts. Sources: <sup>1</sup> USDA.

**Table: Argentina Whole Milk Powder Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Whole Milk Powder Production, '000 tonnes <sup>1</sup>	175.0	189.0	211.9	215.2	219.5	225.1
Whole Milk Powder Consumption, '000 tonnes <sup>2</sup>	85.0	92.6	96.8	98.9	102.4	106.4
Whole Milk Powder Net Trade Balance, '000 tonnes <sup>3</sup>	94.0	96.4	115.1	116.3	117.2	118.7

Notes: <sup>1</sup> BMI forecasts. Sources: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Butter Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Butter Production, '000 tonnes <sup>1</sup>	47.4	47.8	48.5	48.7	48.8	49.0
Butter Consumption, '000 tonnes <sup>2</sup>	44.5	45.2	45.7	45.8	46.1	46.4
Butter Net Trade Balance, '000 tonnes <sup>3</sup>	2.9	2.6	2.8	2.9	2.7	2.6

Notes: <sup>1</sup> BMI forecasts. Sources: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Cheese Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Cheese Production, '000 tonnes <sup>1</sup>	475.0	515.3	564.6	584.0	596.5	603.6
Cheese Consumption, '000 tonnes <sup>2</sup>	440.0	459.9	489.5	514.6	540.7	558.0
Cheese Net Trade Balance, '000 tonnes <sup>3</sup>	43.0	55.4	75.1	69.4	55.7	45.6

Notes: <sup>1</sup> BMI forecasts. Sources: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

### Record Prices

As international dairy prices rose to unprecedented levels in 2007, Argentine production fell in all dairy exports, as adverse climactic conditions, in conjunction with government intervention, served to

negatively impact on farmers' inclinations and capacities to produce. However, production shortfalls were offset by the global price hikes, thus tempering the impact.

Even in the face of restricted production, domestic consumption increased in nearly every category, with butter as the only product witnessing falling demand. This would seem to justify the government attempts to protect domestic consumption, by imposing export taxes of 15%. However, these taxes present considerable disincentives for farmers to produce. Drought has served to hinder production this year, although the abundance of feed crops adds weight to our forecast of 10.98mn tonnes of fresh milk being produced this year, a healthy year-on-year increase of 7.4% from last year's four-year production low.

### Processing Power

The competitiveness of the dairy processing industry within Argentina has been a contributing factor to strong domestic consumption, particularly in cheese and WMP. Road infrastructure is particularly good, enabling easy and efficient dispersal of goods to the remotest parts of the country. In addition, the existence of top processors such as Nestlé, Danone and Fonterra in Argentina gives domestic processors connections to established international markets, further underlining the potential to cater to both domestic and foreign markets.

**Table: Argentina Milk Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Milk Production, '000 tonnes <sup>1</sup>	8500.0	7950.0	9250.0	9500.0	10200.0	9400.0
Liquid Milk Consumption, '000 tonnes <sup>1</sup>	1990.0	2050.0	1800.0	1800.0	1900.0	2000.0

Sources: <sup>1</sup> USDA.

**Table: Argentina Whole Milk Powder Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Whole Milk Powder Production, '000 tonnes <sup>1</sup>	205.0	198.0	260.0	255.0	260.0	175.0
Whole Milk Powder Consumption, '000 tonnes <sup>2</sup>	95.0	84.0	86.0	98.0	54.0	85.0
Whole Milk Powder Net Trade Balance, '000 tonnes <sup>3</sup>	136.0	99.0	176.0	159.0	209.0	94.0

Sources: <sup>1</sup> USDA. Sources: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Butter Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Butter Production, '000 tonnes <sup>1</sup>	48.0	45.0	45.0	47.5	47.4	47.4
Butter Consumption, '000 tonnes <sup>2</sup>	44.0	43.0	43.0	44.3	45.6	44.5
Butter Net Trade Balance, '000 tonnes <sup>3</sup>	4.0	2.0	2.0	3.2	1.8	2.9

Sources: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Cheese Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Cheese Production, '000 tonnes <sup>1</sup>	370.0	325.0	370.0	460.0	480.0	475.0
Cheese Consumption, '000 tonnes <sup>2</sup>	350.0	310.0	338.0	405.0	420.0	440.0
Cheese Net Trade Balance, '000 tonnes <sup>3</sup>	25.0	22.0	31.0	50.0	56.0	43.0

Sources: <sup>1</sup> INDEC, BMI. <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

## Risks To Outlook

The ongoing WTO Doha Round negotiations have implications for all involved in the Argentine dairy industry. At present, the EU exercises various price controls to ensure that its dairy farmers can satisfy local consumption without the need to import. Argentina competes with EU countries in various global dairy markets, meaning that the dairy shortage created by the removal of EU farm subsidies, import tariffs and export subsidies could be alleviated by Argentine exports. Furthermore, EU consumers, who are among the highest dairy consumers in the world, could become a source of marketing opportunities for European processors based in Argentina, further strengthening the Argentine outlook.

On the negative risk side, export taxes and export bans are a favourite ploy of the Argentine government as a source of revenue and securing domestic supplies. Export taxes have already increased by five percentage points to 20% this year. This is a disincentive for investors, who are adverse to such price controls, while hindering the incentives for farmers to produce.

Argentine farmers are not averse to causing supply disruptions should they feel aggrieved, and it is likely that future instances of such action could occur, should further price controls be imposed. The volatility of the peso is also a source of instability, which underpins **BMI**'s decision to place Argentina second from the bottom in its Q108 country risk rating. The instability of the peso may have a negative effect on domestic consumption, as expectations on real and nominal future prices may affect immediate consumption decisions of locals.

Finally, the trend towards higher grain and soybean cultivation may, in the mid-term, create land pressures as farmers struggle to accommodate dairy cows amid crops with potentially more profitability, such as barley, which is vital to the beer industry, and soybean, which is particularly popular at a time when biofuel production is dramatically increasing.

## Argentina Rice Outlook

**BMI Supply View:** We forecast export orientation to fuel a domestic production increase of 10.1% to 2012, resulting in an output of 854,000 tonnes. Strong world rice prices must be seen as a major contributor to Argentine production, although yields are set to decrease to 4.17 tonnes per ha from 4.56 per ha last year. This may be due to soaring fertiliser and pesticide prices leading to reduced crop coverage. The weather has also been unpredictable of late, with droughts followed by torrential rains, negatively impacting on production cycles. With Brazil destined to remain one of the world's highest rice importers, export opportunities should remain consistent, with production continuing to outgrow consumption.

**BMI Demand View:** Rice is not a staple food in Argentina, where potato- and pasta- based dishes comprise the majority of carbohydrate consumption. As such, we envisage a mild growth in consumption of 6.5%, which would bring total demand to 322,000 tonnes. Rice consumption is mainly concentrated in the rural areas of the country, where large expanses of land make it easier to cultivate.

**Table: Argentina Rice Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Rice Production, '000 tonnes <sup>1</sup>	775.0	701.0	823.9	830.9	839.7	853.6
Rice Consumption, '000 tonnes <sup>2</sup>	302.3	307.3	318.1	319.0	319.7	322.0
Rice Net Trade Balance, '000 tonnes <sup>3</sup>	476.1	544.8	560.2	611.4	655.0	696.1

Notes: <sup>1</sup> BMI forecasts. Source: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Rice Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Rice Production, '000 tonnes <sup>1</sup>	463.0	467.0	742.0	683.0	764.0	775.0
Rice Consumption, '000 tonnes <sup>2</sup>	245.0	265.0	275.0	285.0	295.0	302.3
Rice Net Trade Balance, '000 tonnes <sup>3</sup>	123.0	157.0	284.0	315.0	340.0	476.1

Source: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA



## Risks To Outlook

Because Argentina produces the majority of its rice for export, increases in fuel and commodities prices would impact on local farmers. Although Brazil is a major importer and looks likely to remain so for the foreseeable future, the relatively small amounts of rice that Argentina produces may be seen as unprofitable if foreign demand fell by even a small amount. It is more than likely that domestic demand would fall to almost nothing as a result of production cutbacks.

## Argentina Sugar Outlook

**BMI Supply View:** While Brazil enjoys its position as the largest producer of sugar in the world, Argentina's supplies seem paltry by comparison. An estimated output of 2.1mn tonnes this year is set to increase by just 3.9% to reach 2.5mn tonnes in 2012. Sugar production this year is set to fall 11.5% from the 2.4mn tonnes produced last year, with cane harvests in 2008 also estimated for y-o-y constriction of 5.3%. We can attribute this to high consumption in world sugar markets keeping the price relatively low compared to other commodities. A growth rate of 52.5% in the five-year period to 2007 suggests that the market is maturing, although the recent high-growth demand for biofuels may lead to increased export opportunities in the future.

**BMI Demand View:** Consumption is projected to grow by 8.9% over our projection period, as sufficient domestic supply growth continues to be outweighed by the growth in local demand. A growing appetite for confectionery is manifested in confectionery demand, increasing by 10% from an estimated 169,740 tonnes in 2008 to 186,970 at the end of our projection period in 2012. More pronounced is the 24% increase in soft drink sales over the same period, indicating that marketed value-added sugar products provide the best way for local producers to simultaneously widen profit margins and their consumer base.

**Table: Argentina Sugar Production, Consumption & Trade Forecast Data**

	2007	2008f	2009f	2010f	2011f	2012f
Sugar Production, '000 tonnes <sup>1</sup>	2440.0	2160.0	2461.4	2478.7	2500.7	2535.1
Sugar Consumption, '000 tonnes <sup>2</sup>	1750.0	1800.0	1876.6	1888.3	1893.4	1906.2
Sugar Net Trade Balance ('000 tonnes) <sup>3</sup>	634.0	352.0	584.8	590.3	607.4	628.9

Notes: <sup>1</sup> BMI forecasts. Source: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

**Table: Argentina Sugar Production, Consumption & Trade Historical Data**

	2002	2003	2004	2005	2006	2007
Sugar Production, '000 tonnes <sup>1</sup>	1600.0	1650.0	1925.0	1815.0	2140.0	2440.0
Sugar Consumption, '000 tonnes <sup>2</sup>	1480.0	1440.0	1560.0	1610.0	1685.0	1750.0
Sugar Net Trade Balance ('000 tonnes) <sup>3</sup>	136.0	264.0	191.0	223.0	636.0	634.0

Source: <sup>1</sup> INDEC, BMI; <sup>2</sup> FAPRI, USDA, BMI; <sup>3</sup> INDEC, FAPRI, USDA.

## Risks To Outlook

Brazil's role in world sugar is huge and production expansion from Argentina's neighbour may lower profitability to such an extent that export incentives reduce dramatically for Argentina. To feed the demand for biofuels requires substantial improvements and investments in grinding and milling capacities, which Argentina's government is unlikely to fund, while more profitable crops, such as soybean, provide it with better opportunities for processing and exporting. Argentine sugar exports may diminish, although it is doubtful that it will fall to such an extent that domestic consumption will fail to be met.

## Commodity Price Forecasts

### Rice

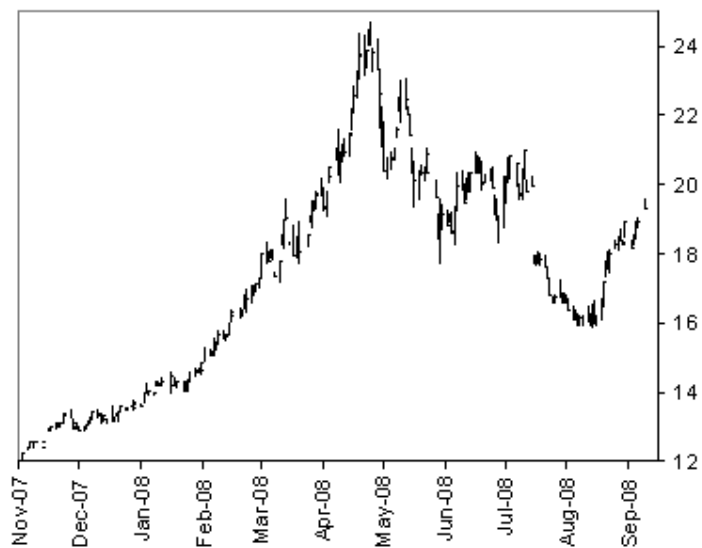
#### Short-Term Outlook

Front-month rough rice has rebounded by approximately 20% since touching its seven-month low in August, and is currently trading at US\$19.26/cwt. From a technical perspective, rice has broken through resistance at US\$18.00/cwt. While a sustained break above resistance would likely lead to gains towards the US\$20.00-20.50/cwt, a move below this level would be a negative signal, presaging further downside to the US\$18.00/cwt area in the first instance, and then possibly to US\$16.00/cwt. We are leaning on the side of further downside in the short term, as a stronger dollar and an increase in rice stocks help reduce price pressures.

#### Core View

Over the medium term **BMI** expects prices to remain well supported as interventionist government policies, combined with growing demand continue to put a floor under prices. This view is supported by the forward curve which is implying prices of US\$18.35/cwt and US\$17.98/cwt for the November 2008 and 2009 contracts. Having said that, our price targets are slightly less ambitious than what the forward curves are implying.

**Strong Technicals**  
Front-Month Rough Rice, US\$/cwt



Source: BMI

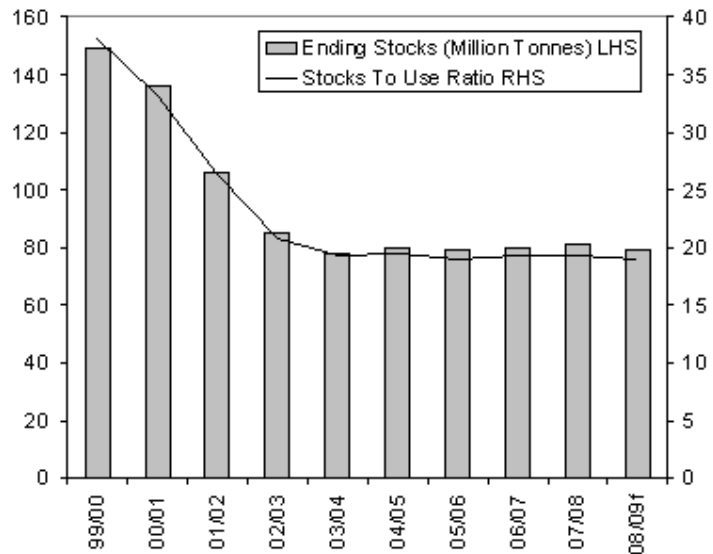
While supply and demand factors have played their part in the past two to three years, we believe that the sharp run-up in prices earlier this year was to a large extent a case of overshooting triggered by government policies by the largest rice consuming countries to safeguard ample rice stocks for their domestic populations. The outcome was a combination of a series of export restrictions by the world's largest rice producers, and a scramble for rice on international markets which resulted in world rice prices peaking at US\$24.68/cwt in April this year. India and Vietnam, which together account for approximately 30% of world production, imposed export restrictions, helping send prices spiralling upwards.

Furthermore, in a populist effort to maintain support from rural parts of the country, the Thai government

has continued to pay domestic producers above local market prices - a policy that has encouraged further hoarding by the government.

While global rice inventories are lower now than they were in 2000, we have not been witnessing a rapid drawdown in rice inventories as has been the case for other commodities. Indeed, the adjacent graph illustrates that most of the drawdown in inventories occurred during the period between 2000 and 2004, when there was a sharp drop off in production. Global inventories almost halved during the period from approximately 150mn tonnes in 1999/2000 to 80mn tonnes in 2003/2004. This

**Steady Reserves**  
Rice Stocks, & Stocks To Use Ratio



Source: BMI

period also coincided with a 212% rise in prices during the period Q402 to Q204. However, since 2004 inventories have remained relatively unchanged at approximately 80mn tonnes, as both consumption and production have tracked each other very closely (*see chart below*). As such, we believe that at present world rice markets are relatively balanced in terms of supply and demand, although this may change slightly going forward. **BMI** believes that future price movements will depend as much on government policies as demand and supply factors.

**Supply And Demand Factors To Offer Some Relief**

According to the **Food & Agriculture Organisation** (FAO), global rice production is expected to outstrip demand in 2008, which will contribute to a build up in inventories. Abundant 2007 paddy crops (estimated at a record 658mn tonnes) together with good prospects for the 2008 crops (projected to come in at 668mn), will help soften the rice market. Indeed, historically inflated prices prompted domestic farmers to expand production earlier this year. Furthermore, Vietnam has recently relaxed rice export restrictions, and India is expected to follow suit in October 2008, which will continue to provide additional supply to international markets, placing downside pressure on prices.

We expect demand pressures to weaken ever so slightly as global growth moderates. Asia is by far the world's largest producer and consumer of rice accounting for just over 90% in both categories. While rising disposable incomes across the region will help to buoy prices, slower global demand in 2008 will

help soften rising demand pressures. Indeed, the Philippines, the world's largest rice importer, is expected to import significantly less rice in 2009 and 2010 as it strives to become self sufficient with regard to rice. Moreover as global growth and demand for foodstuffs moderate, we expect further easing of restrictive government policies.

**Government Policies To Remain Supportive Over Medium Term**

As previously mentioned, rice prices will also be determined by government policy. While we expect weaker prices on the back of easing of export restrictions, rice exporting countries will likely seek to establish a floor under the price for rice, especially as farmers expanded production earlier this year. Indeed, the idea of creating a rice cartel similar to OPEC to regulate the price has been considered - although we

believe the more likely result will be intervention on a country-by-country basis, rather than a collective effort. Above average prices have provided substantial revenues to both the state coffers and to local producers alike, and may bode well for governments seeking to increase their popularity amongst the rural population.

**Risks To Outlook**

We believe that the risks to our forecasts are to the upside, if only because Asian governments would be more likely to support the international price of rice rather than depress it. Furthermore, we believe that faster than anticipated demand growth is also a possibility. This scenario, combined with limited scope for productivity gains in the short run (yields are not expected to improve significantly), would also add to upside pressure. That said, in an effort to balance supply and demand, Asian governments may be comfortable with rice at a level slightly lower than both **BMI** and the market are anticipating, which could result in prices easing further than expected. Allowing for these risks, we believe that rice will continue to trade well above its historical average going forward as demand pressures and governments buoy the commodity.

**Fairly Balanced**  
Production & Consumption (% Chg y-oy)



Source: BMI

## Wheat

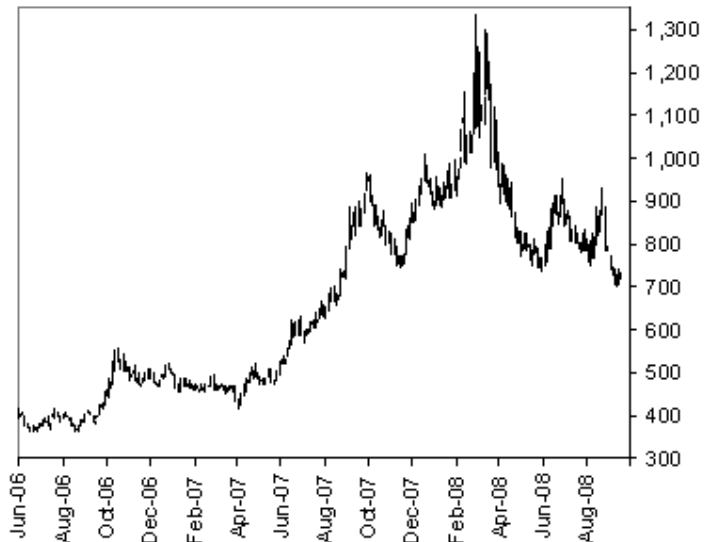
### Short-Term Outlook

December wheat is down by approximately 42% since its all-time high of US\$1,257/bushel in early March this year, and looks set for further declines over the coming months. The slowing global economy and a stronger US dollar will continue to place downside pressure on the global commodity complex. Combined with this year's stronger-than-anticipated wheat crop, this will add downside pressures to wheat prices.

Wheat is currently trading at

US\$716/bushel and has breached support around the US\$730/bushel area. From a technical perspective, the chart pattern seems to be forming a head and shoulders, which is usually indicative of a strong reversal pattern, and potential for further downside. A significant close beneath the US\$730/bushel area could presage further downside to US\$570/bushel area.

### Poor Technical Picture December Wheat, US\$/Bushel



Source: BMI

### Core View

**BMI** expects global economic growth to slow from 4.9% in 2007 to 3.9% in 2008, with downside risks, as European and emerging markets alike experience a faster than anticipated deterioration in economic performance. As such slower global economic activity, combined with a stronger US dollar and a bumper harvest will all add to downside pressures on wheat prices. Furthermore, the recent declines across the global commodity complex, which has seen the price of Brent crude, and various precious metals fall will weigh on, and may presage the future price action for grains. As such, we remain cautious over the medium term as fundamental and technical factors align. Having said that, we have a slightly more bearish view than the market. The forward curve is in contango, signalling that expectations are for higher prices for the future contracts. Indeed, the December 2008 and 2009 contracts are priced at US\$730/bushel and US\$818/bushel, respectively. Meanwhile, the forecasts collected by **Bloomberg** points to a similar picture with the mean price for end 2008 and end 2009 at US\$812/bushel and US\$823/bushel, respectively. However, given that wheat supplies remain low by historical standards, we anticipate that any decline will be cushioned, rather than disorderly.

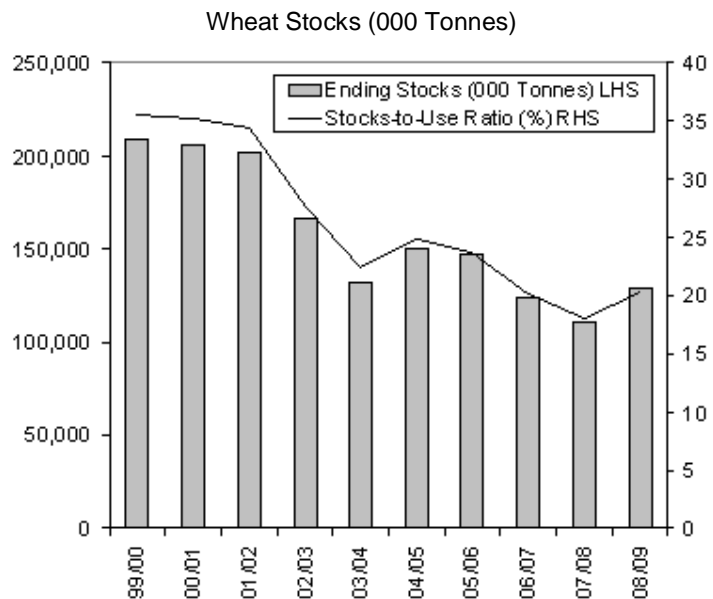
**Good Harvest Points To Strong Supply**

According to the **United States Department of Agriculture (USDA)** world wheat production prospects for 2008/09 have improved significantly on the back of a large increase in supplies from the world's largest producers, helping to offset poor crop numbers in smaller producing countries. Indeed, the USDA estimates that global wheat production will come in at 671mn tonnes in 2008/09, an upwards revision from previous estimates of 664mn tonnes (July report) and an 11% increase from the 2007/08 crop of 603mn tonnes. The majority of the expected increase comes from the world's largest producers including the EU-27 (partially due to a change in government policy) Russia and India. Furthermore, net exporting countries such as Russia, the USA and Canada, which account for just under 60% of global wheat exports are also expected to experience good crop numbers with a 3.0mn, 2.0mn and 0.5mn tonne increase expected, respectively. Similarly, restrictions of wheat exports implemented by Kazakhstan (one of the top ten exporters) have been eased in early September, which will add to international supplies. Having said that, we can not rule out further export restrictions by countries such as Russia that have recently warned that domestic stockpiles are lower than expected. While China is the world's second largest wheat producer, it plays a marginal role in international markets as it is generally self sufficient with little to offer export markets.

**Demand To Rise, But Stock Levels Too**

The USDA expects global wheat use to come in at 650mn tonnes, with the largest increase coming from the EU and Russia. Indeed, we expect global economic growth of 3.9% in 2008 which should continue providing demand pressures for feed and non-feed use. Despite the projected increase in demand, supply should outstrip demand this year by 21mn tonnes, which will be supportive of global inventories, which have been declining in recent years. As the chart illustrates, global

**Creeping Back Up Slowly**



Source: BMI

wheat inventories almost halved from 208mn tonnes in 1999/2000 to 111mn tonnes in 2007/08, and have since risen to 136mn in August. As such, we believe that rising global inventories will be supportive of



our view for lower wheat prices, however, as previously mentioned, export restrictions may be enacted by wheat exporting countries depending on domestic stock levels, which could then push prices back up.

**Risks To Outlook**

We believe that the risks to our forecasts are to the upside. While inventories are expected to rise this year on the back of stronger-than-anticipated supplies, they are still tight by historical standards. Indeed, a rapid decline in stocks of any of the major exporters could result in another round of export restrictions which would only serve to push the price up. Although global crops are up this year, poor weather in the next season could result in further declines in inventories, adding to upside pressure on prices. While China does not seem to affect world prices (it is generally self sufficient), a poor crop in China could result in a surge of imports, placing additional pressure on international wheat stocks.

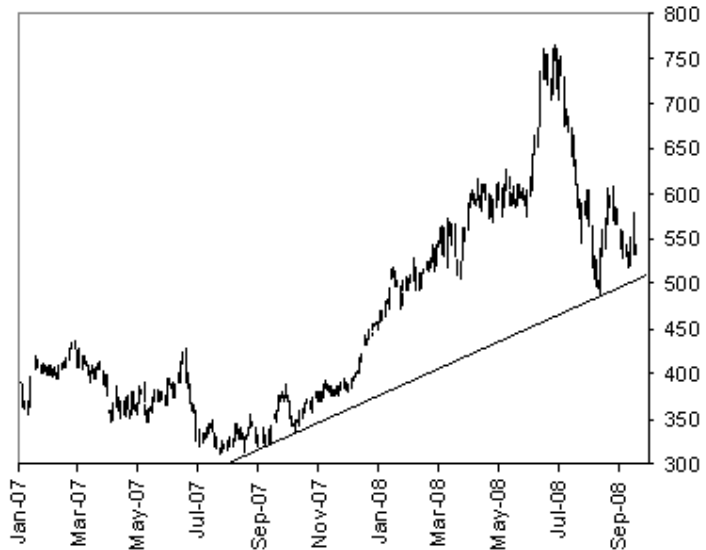
## Corn

### Short-Term Outlook

December corn has come down by approximately 27% since peaking at US\$788/bushel in late June this year, and could decline further in the short run. The technical picture is uninspiring, while the fundamentals point to the possibility of further weakness in the short-term. Having said that, the medium term picture is more constructive in our view. From a technical perspective, despite corn's bounce to US\$563/bushel (on the back of news of declining

### Supportive Medium Term Fundamentals

December Corn, US\$/bushel



Source: BMI

US inventories), we do not rule out a move towards key support around the US\$540/bushel area. A break below this level could presage further downside to key trendline support at the US\$450/bushel area. Fundamentals have not been totally supportive either. The rise in volatility caused by ongoing banking sector distress in the US, combined with a slowing global economy and a stronger US dollar may continue to place downside pressure on corn, as will an abundant crop this year.

### Core View

We see the global economy slowing from 4.9% in 2007 to 3.9% in 2008, with considerable downside risks, as the eurozone and various emerging markets may have over-tightened in response to inflation fears earlier this year. This, combined with the potential for a stronger dollar, will continue to add pressure on the global commodity complex in the short-to-medium term. Offsetting this, rising incomes, lower inventories, and the use of corn for ethanol production will remain supportive over the medium term. That said, **BMI** has a slightly more bearish view than the market. Compared to BMI's end-09 forecast of US\$520/bushel and end-09 forecast of US\$600/bushel, the forward curve shows that December 2008 and December 2009 contracts are priced at US\$563/bushel and US\$598/bushel, respectively, while forecasts collected by **Bloomberg** see a mean price for end-08 of US\$621/bushel and an end-09 price of US\$684/bushel.

### Supply Will Remain Tight

Despite strong crop yields and good harvests this year, international corn production is projected to be

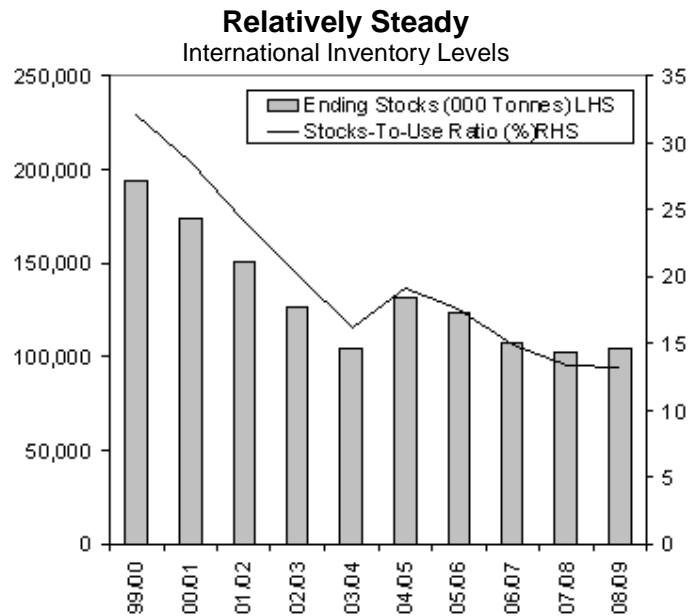
slightly lower this year, which will help buoy prices in the medium term. The ongoing drawdown of corn inventories across the globe will also be supportive of prices. The US is the world's largest producer and exporter of corn, typically accounting for just over 60% of global corn exports, and despite excessive rains and flooding, the **United States Department of Agriculture (USDA)** expects the 2008 corn crop to be the second largest on record. Latest estimates place the US crop at 306mn tonnes, contributing to almost half of global corn production, itself projected to come in at 782mn tonnes. While still immense, this figure is marginally lower than last year's record 790mn tonnes. As such, global exports of corn are expected to decline from 126mn tonnes in 2007/08 to 111mn tonnes in 2008/09, which will remain supportive of higher prices. Global corn inventories have also been on the downtrend since the beginning of the decade, with the ratio of stocks-to-use declining from 28.6% in 2000/01 to a forecast of 13.2% in 2008/09. This implies the global production has been unable to keep up with consumption over the past eight years, and may suggest further tightness ahead.

Given that oil prices are still high by historical standards, we expect to see a continued drive towards the production of corn-based ethanol. Indeed, the use of corn in the production of ethanol in the US has risen substantially in recent years from 142,000 bushels in 2004/05 to 2.4mn in 2006/07. A continued rise in the usage of corn for this purpose will also contribute to a tighter corn market going forward.

**Risks To Outlook**

While we believe that the risks are tilted to the downside in the short run as the global economic picture deteriorates, over the medium term the

risks are to the upside. Supply problems from Argentina as a result of farmer's strikes or a poor crop in the US could still push the price of corn higher. Furthermore, while China is generally self sufficient in the production of corn, recently it has been tapping international markets to satisfy domestic demand. In the event of a poor Chinese crop, we would expect imports to rise quite rapidly, placing additional pressure on international corn prices. Furthermore, given that global inventories are low by historical standards, we would not rule out the implementation of export restrictions by some exporting countries, although we are not there yet.



Source: BMI

## Sugar

### Short-Term Outlook

October sugar has come down by approximately 22% since peaking in Q108, and is currently trading at US\$11.90/lb. From a technical perspective sugar is trading within a range between US\$11.50-14.20/lb, and while we expect it to keep within these levels, we do not rule out a move to the lower range around the US\$11.50/lb area.

We expect abundant sugar supplies, combined with deteriorating economic conditions projected this year

to weigh on the price of sugar. That said, a weakening US dollar would help cushion any decline in the short run. Over the medium-term, however, we believe that prices will remain well supported as rising incomes in fast growing economies put upside pressure on demand.

### Still Looking Sweet Front-Month Sugar US\$/lb



Source: BMI

### Core View

There have been significant shifts in sugar production in the past decade with the emergence of new sugar producing countries such as India and Thailand ousting traditional producers such as Cuba and the European Union (EU). Indeed, Cuba has since become a marginal player while the EU has become the single largest net importer. Brazil, the world's largest sugar producer - accounting for approximately 20% of global production and 53% of global exports - has also cemented its position in the past decade, doubling its sugar production and trebling its sugar exports. Furthermore, the ongoing drive by Brazil and other countries such as the US to produce sugar cane-based ethanol will continue impacting on the supply and demand dynamics.

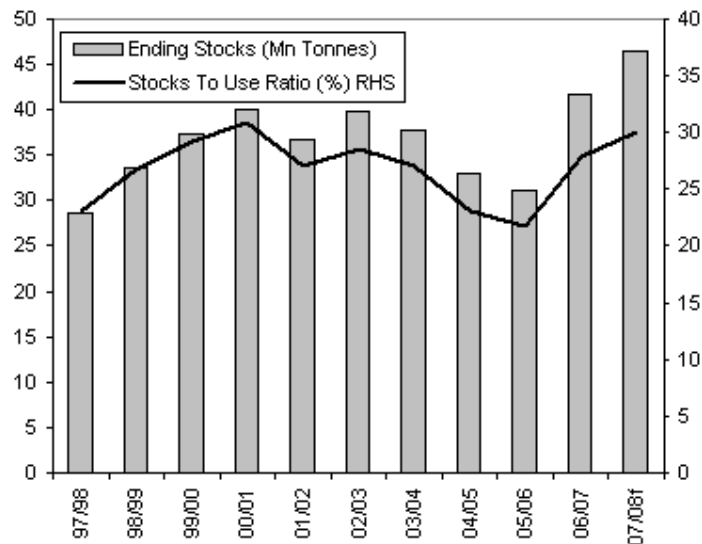
### Supplies Continue To Increase, And Stock Levels Are Rising

Growth of global sugar production averaged approximately 3.0% annually in the past decade, although production volatility remains a problem, with large production swings on a yearly basis. Growth was strongest in India, Brazil and Thailand, registering growth rates of 7.7%, 6.9% and 4.4%, respectively. Given their market position, it is unsurprising that together, these countries account for approximately 80% of global exports. Furthermore, despite steady consumption growth over the same period, robust

sugar production has enabled a build up in international sugar inventories. Global ending stocks (sugar inventories) have risen steadily over the past decade from 37mn tonnes in 2000 to a projected 48mn tonnes in 2008/2009. This has also resulted in a steady level of the stocks-to-use ratio - a measure of market tightness.

This is in stark contrast to other commodities such as coffee, cocoa, milk, and grains, which have seen the ratio decline quite significantly in recent years. Furthermore, we expect a strong crop in Brazil in 2008/09 as early estimates by the Brazilian government suggest that the sugar cane crop will be 11.4% larger this year, meanwhile the production of sugar should rise by 4.8%. These results are largely on the back of favourable weather conditions, higher productivity, and larger areas harvested.

**Large Inventories**  
Sugar Inventories



Source: BMI

**Consumption To Remain Supportive**

Global consumption has come in slightly lower than production. At an average annual rate of 2.3% in the past decade, it is lower than production (3.0%), however, given that consumption is typically steadier than supply, a poor crop in one year can push prices upwards. Furthermore, we expect consumption to remain robust as rising incomes provide an impetus to demand and hence prices. Two cases in point are Indonesia and the EU. Indonesia has increased its sugar imports by approximately 50% since 2000/2001, and we expect further import growth for the world's fourth most populous country as it continues to grow at a stellar pace. Meanwhile, although the EU was once a net sugar exporter, imports from the EU now account for approximately 8% of total imports, which we expect will continue to grow going forward.

While sugar supplies are expected to outstrip consumption, at least in the short-run, the use of sugar cane in the production of ethanol will put downside pressures on supply going forward. Indeed, Brazil is the world's largest ethanol producer, and diverted approximately 54% of last year's sugar cane harvest for the production of ethanol. According to Brazilian authorities, this share is expected to rise to approximately 57% this year and beyond this level going forward. Indeed, according to estimates, Brazilian ethanol

consumption is expected to increase by 50% by 2011, which would place additional pressure on sugar prices if more of the sugar-cane harvest is directed towards the production of ethanol.

**Risks To Outlook**

We believe that the risks to our forecasts are generally well balanced, although the deteriorating economic conditions could push sugar prices lower as investors move out of commodities and into safe haven assets. Over the medium term, we believe that the risks are slightly tilted to the upside. Stronger-than-anticipated consumer demand particularly from EM, combined with the potential for a poor harvest could push prices upwards. Having said that, inventory levels remain considerably higher than for other commodities which should also limit sharp moves to the upside.

## Milk

### Short-Term Outlook

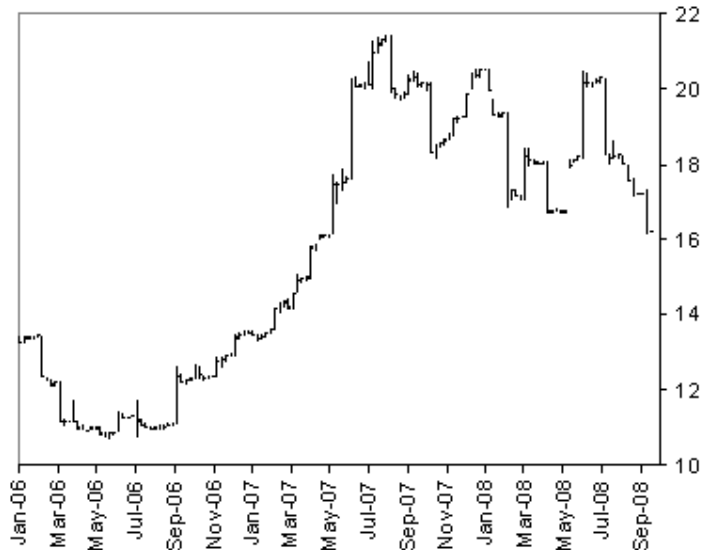
Front-month milk continues to trade above its historical average, and this is largely on the back of strong global demand, combined with limited supply expansion and poor production figures. Indeed, emerging market demand, particularly from China, Russia and Mexico has continued to play an important factor as have poor weather conditions in the Antipodes. The price action of the chart remains choppy - a sign of relative illiquidity - which makes short-term moves

more accentuated, and harder to gauge. That said, we believe that given the current global conditions, milk will remain supported around the US\$16.00-18.50/cwt area, although we do not rule out a move below this level. Indeed, from a technical perspective, a sustained break below this level could presage further losses towards the US\$14.00-14.50/cwt area.

### Core View

Class III Milk is used predominantly in the manufacturing of cheese products and is the most financially liquid of the traded milk instruments. That said, most dairy markets move in a similar manner given their shared origin, and the relative ease of substitution between them. The sharp run-up in prices earlier this year was to a large extent driven by strong demand from emerging markets, particularly China, which is expected to increase its consumption of dairy products by approximately 15% per year until 2009. Indeed, while fluid milk production (from the largest producers) increased by 8.3% during the period from 2003 to 2007, consumption increased by 11.3% over the same period, helping to push up prices. Similarly, demand for cheese has marginally outstripped its production over the same period. The cost of milk however, has also been influenced by the input costs of maintaining cattle. Indeed, the cost of corn - the main constituent of a dairy cow's diet - has increased sharply in the past year, rising by 70% since the beginning of 2007. The forward price curve is upward sloping, which indicates that the market expects higher prices for future milk contracts. Indeed, end-08 and end-09 contracts are priced at US\$16.80/cwt and US\$17.27/cwt, respectively.

**Not So Liquid**  
Front-Month Class III Milk, US\$/cwt



Source: BMI

### **Demand & Supply To Remain Supportive**

We expect demand pressures to persist over the medium term as the global economy continues to grow. Indeed, we expect global economic growth to come in at 3.9% in 2008. Although this figure is marginally lower than the 4.9% recorded in 2007, we believe that emerging market growth will hold up well, which will exert additional demand-side pressures on milk. Furthermore, as these countries incorporate western nutritional habits into their diets, we would expect demand for dairy products to rise, particularly in fast growing countries like China, which traditionally have not been large consumers of products such as cheese and yogurt.

While the recent decline in the price of milk has been producer led, supply constraints in the medium term will be supportive of milk prices. Manufacturers that did not export a significant proportion of their output have been ramping up production for exports in a bid to benefit from the current period of above-average prices. This strategy has recently pushed up overall supplies, while depressing prices. However, Australia and New Zealand - the world's largest dairy producers accounting for approximately 45% of global fat and non-fat milk powder exports - experienced adverse weather conditions which negatively impacted milk production for the 2007/08 season ending in June. Below average rainfall will lead to stagnant production next year in Australia. Similarly, New Zealand experienced a five percent decline in milk output. Furthermore, while EU milk production was revised slightly upwards - the EU accounts for approximately 30% of global dairy exports - the EU Commission expects internal demand will absorb a significant proportion of this increase, particularly by the new member states. Moreover, while an active effort has been made to increase production in China - head count of cattle has doubled in the period from 2003-07 - we believe that demand will continue to outstrip supply in the medium term. Given these supply and demand dynamics we expect the price of milk to remain elevated by historical standards.

### **Risks To Outlook**

Given the recent decline in prices, we believe that the risks are relatively well balanced in the short term, although as mentioned, a sustained move below the US\$16.00/cwt area could presage further declines in prices. Over the medium term however, the risks are slightly skewed to the upside, in our view. Rising incomes in emerging markets will lead to better dietary habits and thus an increase in the demand for milk. Furthermore, any government policy aimed at increasing the population's daily intake could also add upside pressures as was evidenced in China earlier this year. While we expect output capacity to improve as the price of milk remains above its historical average price, another round of poor weather conditions in the Antipodes would further be supportive of elevated prices. Given these factors, we also believe that sharp downside to milk prices would also be limited.



## Soy

### Short-Term Outlook

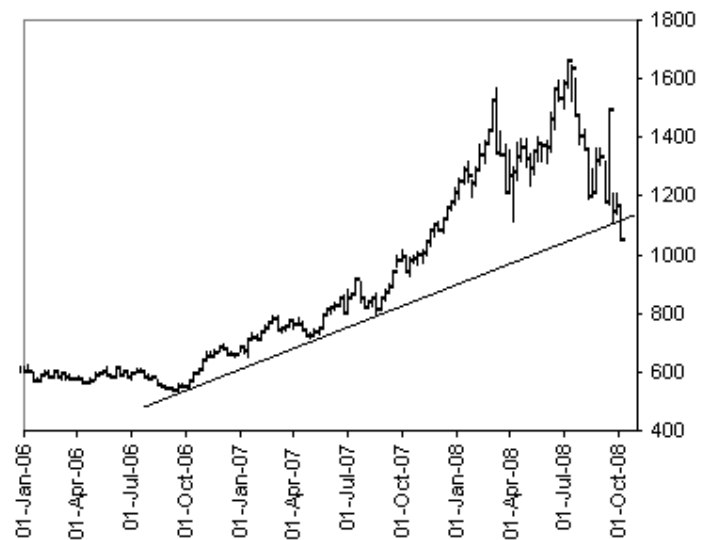
November soybean has come down by approximately 36% since peaking in early July, and is currently trading at US\$1,050/bushel, having recently broken below multi-year trendline support around US\$1,100/bushel. Given the volatile nature of the commodity, we do not discount a retracement back to this level, and any break above the US\$1,200/bushel area would be a bullish sign. That said, believe soybean prices will head lower to the US\$900/bushel area, and possibly to US\$750/bushel as a

stronger US dollar, deteriorating global economic conditions, and larger soybean crops expected in China, Argentina and Brazil offer slack to the market.

### Core View

We remain cautious regarding commodities in the short-to medium term for a number of reasons. Firstly, the global economic environment is deteriorating quite rapidly. We expect global economic growth to slow from 4.9% in 2007 to 3.9% in 2008, with considerable downside risks. Indeed, we have recently revised down Chinese and Eurozone real GDP growth and highlight the downside risks to US growth. Secondly, we are also forecasting a rebound in the US dollar to US\$1.4000/EUR by year-end. Although we recognise the risks to our medium-term view of dollar strength, we are sticking with it for the moment, and believe that it will help put downside pressure on soybean prices. Thirdly, a larger crop expected in 2007/2008 will also provide further downside pressures. Lastly, we are projecting a sharp decline in oil prices by Q309, which will in our opinion, dampen the demand for soybean as an alternative bio-fuel. For these reasons **BMI** is more bearish than the market consensus estimates. Indeed, according to a survey conducted by **Bloomberg** the median end 2008 price target is US\$1,406/bushel, which is significantly higher than our target of US\$950/bushel. That said, our forecasts are more in line with the forwards curve which is pricing the January 09 contract at US\$1,180/bushel.

**Breaking Lower**  
Front-Month Soybean, US\$/bushel



Source: BMI

### **Supplies Continue To Increase, And Stock Levels Are Rising**

The US is the world's largest soybean producer, predicted to account for approximately 32% of global production in 2007/2008, followed by Brazil (28%) and Argentina (21%). In terms of exports, however, the US and Brazil are each expected to account for 36% of world exports in 2007/2008, with Argentina accounting for the third largest share at 17% of exports. We also expect soy supply to increase in 2008/2009, on the back of a combination of higher yields and larger areas harvested. While the US soy crop was hit this year due to a lack of rain in the Midwest region and a smaller planting area, soybean exports are expected to finish the 2007/2008 crop year at a record high of 1.155bn bushels, but are expected to decline in 2008/2009. Meanwhile, September's estimate for the Brazilian soybean crop production is up by 2.8% y-o-y in 2007/2008 on the back of a 3.1% increase in the area planted. The United States Department of Agriculture (USDA) has also revised upwards Argentina's harvest area due to reductions in corn area. Furthermore, a recovery in Argentine soybean shipments during the summer is expected to help buoy Argentine exports in 2007/2008 to 13.9mn tonnes ( assuming farming protests do not resume), meanwhile a large accumulation of soybean stocks will also provide for larger exports in 2008/2009. China, which is the US's single largest soybean export market is also forecast to produce a larger-than- previously anticipated soybean crop on the back of better yields. Indeed, the USDA has recently revised Chinese production up to 16.5mn tonnes, from previous estimates of 16mn tonnes. While US soybean inventories (ending stocks) are expected to decline in 2008/2009, global ending stocks are expected to rise marginally. Together, these factors should help create some slack in the international market.

### **Risks To Outlook**

Given the weakening economic environment, we believe that the risks to the commodity complex are to the downside. Having said that, we believe that grains and foodstuffs will remain better supported due to strong population and income growth in EM. Furthermore, we cannot discount another round of strikes by Argentine farmers, which would prevent the arrival of soybeans to the market place. This could see prices remain above our year end price forecasts.

## Competitive Landscape

**Table: Agricultural Commodity Producers & Traders**

Company Name	Country of Origin	Annual Sales (US\$m)	Annual Sales (loccur)	Financial Year End	Main Areas of Operation
Cargill	United States	120,400	120,400	May-08	Agriculture, Food processing, Financial and Risk Management
Archer Daniels Midland	United States	69,816	69,816	Jun-08	Oilseed Processing, Corn Processing, Agricultural Services
Bunge Ltd	United States	44,804	44,804	Dec-07	Fertilisers, Oilseed Processing, Grain Milling
CHS Inc	United States	17,215	17,215	Aug-07	Food Processing, Grain retail, Crop Nutrition, Bioenergy refiner and retailer
JBS	Brazil	7,782	14,317	Dec-07	Meat Processing and Exporting
Corn Products International	United States	3,390	3,390	Dec-07	Corn Processing

Source: Company Investor Relations, BMI

Table: Agribusiness Suppliers

Company Name	Country of Origin	Annual Sales (US\$mn)	Annual Sales (loccur)	financial year end	Areas of Operation
DuPont Co*	United States	29,697	29,697	Dec-07	Crop Protection, Seeds and Traits
Deere & Co*	United States	24,100	24,100	Dec-07	Agricultural Equipment
Mosaic Co.**	United States	9,812	9,812	May-08	Fertilisers
Monsanto	United States	8,563	8,563	Aug-07	Crop Protection, Seeds and Traits
Bayer CropScience	Germany	8,293	5,652	Dec-07	Crop Protection, Seeds and Traits
Syngenta AG	Switzerland	8,116	8,820	Mar-08	Crop Protection, Seeds and Traits
BASF SE (Agricultural Chemicals Division)	Germany	6,552	4,465	Mar-08	Crop Protection, Seeds and Traits
Potash Corp	Canada	5,234	5,420	Oct-07	Fertilisers
Dow AgroSciences	United States	3,779	3,779	Dec-07	Crop protection
Andersons Inc*	United States	2,379	2,379	Dec-07	Grain Merchandising , Plant Nutrients

*\*These companies have many products and agribusiness operations represent a percentage of their portfolios. The figures given are for their entire sales operations, including agribusiness sales; \*\*Formed in 2004 as a merger between Cargill Crop Nutrition and IMC Global. Source: Company Investor Relations, BMI*

Table: Integrated Agricultural Producers

Company Name	Country of Origin	Annual Sales (US\$mn)	Annual Sales (loccur)	financial year end	Areas of Operation
Tyson Foods	United States	26,900	26,900	Apr-08	Pork, Beef and Chicken Production and Processing
Smithfield Foods	United States	11,351	11,351	May-07	Pork Production and Processing
Dairy Farmers of America	United States	11,100	11,100	Dec-07	Dairy Production and Processing, Animal feed, Crop Protection, Crop Seeds
Land O'Lakes	United States	8,924	11,100	Dec-07	Dairy Production and Marketing
Fonterra	New Zealand	8,700	12,701	Sep-07	Pork, Beef and Poultry Production and Processing
Chiquita Brands Inc	United States	4,663	4,663	Dec-07	Production, Distribution and Marketing of Fresh and Processed Fruit and Veg
Sadia SA	Brazil	3,752	8,623	Dec-07	Livestock, Poultry, Dairy and Soybean Production, Processing and Distribution
Fresh Del Monte Produce	United States	3,365	3,365	Dec-07	Fresh Fruit and Fruit Derivative Production and Distribution

Source: Company Investor Relations, BMI

## Downstream Supply Chain Context

### Food

#### Industry Forecast Scenario

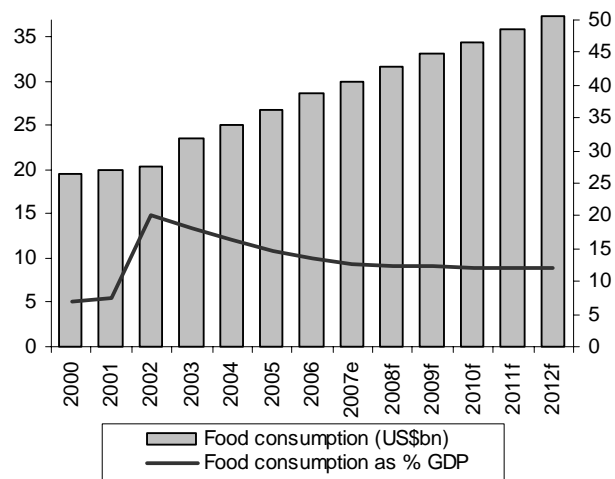
The food and drink industry, similarly to MGR, is benefiting from the Argentine economy's recovery, which has increased the sales of higher quality and premium products in particular. Many manufacturers have, over recent years, increasingly focused on export markets in an attempt to counteract declining domestic demand during recession. While the principal export destinations of Brazil, the US, Chile and China receive almost 50% of Argentina's food and drink exports, new markets

in Asia are beginning to buy from the sector in greater quantities. The export destination profile is now gradually moving away from Latin America and the US and more towards China and other Asian countries.

Export sales do, however, remain vulnerable to drops in commodity prices and re-evaluations of the currency, making it vital for manufacturers to take advantage of developing domestic opportunities as the economy continues to recover.

The government's efforts to curb inflation also continue to have an impact on Argentine food and drink producers. While in the domestic market operators such as **Danone** have entered into price-freezing agreements with the government, the beef sector in particular has been subject to more direct government intervention. The government did, for example, impose a 180-day ban on beef exports in order to halt the upward trajectory of beef prices in local markets. These measures, while potentially effective in the short term, do not address the root causes of inflation, and in some instances may contribute to them. With beef, for example, an export ban would reduce the incentives for producers to raise cattle, which could eventually lead to a decrease in production and, therefore, lower supply -- potentially generating further

**Food consumption (2000-2012)**  
Expenditure level (LHS) and % of GDP (RHS)



e/f=BMI estimate/forecast. Sources: Central Bank of the Republic of Argentina, National Institute of Statistics and Census, estimates

inflationary pressures. Moreover, beef accounts for over US\$1bn in export revenue. The loss of this revenue thus has a noticeable effect on the export sector, and, in turn, on the economy's growth prospects.

The government's interventionist approach involving export taxes, price controls and export bans will have the largest impact on the country's private sector -- the same companies that have been pushing the economic recovery since 2002. Moreover, such moves damage Argentina's attractiveness to domestic and international investors -- something that has already been undermined by spiralling inflation.

One sector that has developed well and is forecast to further expand over the forecast period is the confectionery sector. Over the 2000 to 2006 review period, confectionery value sales in Argentina increased by 20%, with sales development between 2000 and 2002 having been negatively influenced by the severe recession of these years. In 2006, 66% of the overall market was accounted for by chocolate confectionery, followed by sugar confectionery and gum with market shares of 26% and 8% respectively. Over the forecast period to 2012, we expect very strong value sales, with sales having recovered rapidly, driven by new product developments and the increasing penetration of multinational brands.

Consumers, encouraged by a more stable economy, are again willing to indulge themselves with premium products and have started to gradually abandon the conservative purchasing habits of the crisis years, during which purchases were often limited to the absolutely necessary. Since 2004, the overall Argentinean food market is influenced by consumers' increasing health consciousness, with a growing preference for organic, low-fat and sugar-free products, and this has also been reflected in sales developments and trends in the confectionery sector.

Similarly, canned food sales can be expected to increase over the forecast period as the economy recovers and disposable incomes start to slowly increase again.

**Table: Argentina Food Consumption, Category Sales & Sector Trade Indicators - Historical Data & Forecasts**

	2006	2007e	2008f	2009f	2010f	2011f	2012f
Food consumption (US\$bn)	28.6	30.0	31.7	33.1	34.5	35.9	37.3
Food consumption (ARSbn)	87.6	94.9	104.7	113.8	123.3	132.8	143.8
Per capita food consumption (US\$)	731.5	760.1	794.9	820.9	846.2	871.6	898.7
Food consumption as % GDP	13.5	12.6	12.3	12.3	12.2	12.1	12.0
Canned food sales (000 tonnes)	56.6	57.3	58.0	58.6	59.2	59.8	60.4
Canned food sales (US\$m)	139.7	144.6	148.9	153.3	158.0	163.1	168.1
Confectionery sales (000 tonnes)	159.7	163.0	165.4	167.8	170.2	172.5	175.0
Confectionery sales (US\$m)	1,606.5	1,797.6	1,999.4	2,221.4	2,470.9	2,752.4	3,061.8
Exports (food, drink & tobacco) (US\$m)	6,462.6	6,677.2	6,692.7	6,678.5	6,679.1	6,678.7	6,652.0
Imports (food, drink & tobacco) (US\$m)	490.9	517.0	537.8	559.6	583.2	608.6	634.2
Balance (US\$m)	5,971.8	6,160.2	6,155.0	6,118.8	6,095.9	6,070.1	6,045.8

*e/f=BMI estimate/forecast. Source: Central Bank of the Republic of Argentina, National Institute of Statistics and Census, BMI*



## Mass Grocery Retail

### Industry Forecast Scenario

Driven by the Argentinean economy's strong performance during 2006 and 2007, and encouraged by the fact that growth has largely been driven by strong consumer spending, Argentina's mass grocery retailers appear to have re-found their confidence in the sector's development. Real GDP expansion continued in Q207, increasing 8.7% y-o-y driven by robust household consumption, as rising wealth continued to encourage spending. During the first six months of 2007, average nominal sales at supermarkets and shopping centres in Buenos Aires province increased by 24.8% and 27.4% respectively.

In response, the country's mass grocery retailers announced ambitious expansion plans, with **Casino** for example planning its first new store openings since 2001, in the form of four new hypermarket outlets, and **Carrefour** and **Wal-Mart**, as well as Argentina's domestic operators also having announced their plans for significant investments and outlet expansion, also to areas of the country so far characterised by low mass grocery retailer penetration. New outlet formats, such as Wal-Mart's bodega-style Changomas supermarkets, target the increasing number of well-off Argentines looking for an upmarket shopping environment and a broad selection of high-quality food and drink products.

Thus, despite the government-imposed price controls, which have led to shortages of basic foodstuffs in many outlets throughout 2007, confidence within the sector appears to be high, with operators, for the time being, discounting the dangers to Argentina's long-term growth outlook should the government fail to undertake the necessary steps towards structural and policy reforms.

For the economy's recovery to be sustained, and sustainable, and thus able to benefit both MGRs and consumers in the long run, the government needs to extend and deepen structural reform processes, bring inflation under control and satisfactorily solve the country's debt issues.

Supermarkets in particular are forecast to experience a reversal of the declining sales observed during the review period, with operators having re-discovered the format's suitability to cater for medium to high-income consumers looking for a broad range of selected high-quality products, as in the case of Wal-Mart's new Changomas supermarket format.

**Table: Sales Value by Format in Argentina's Mass Grocery Retail Sector - Historical Data & Forecasts (US\$bn)**

	2005	2006	2007e	2008f	2009f	2010f	2011f	2012f
Supermarkets	2.64	2.59	2.51	2.57	2.64	2.71	2.78	2.85
Hypermarkets	1.81	1.92	2.00	2.11	2.22	2.33	2.44	2.57
Discount Stores	0.29	0.32	0.35	0.37	0.40	0.42	0.44	0.46
Convenience Stores	0.73	0.85	0.98	1.05	1.11	1.18	1.25	1.33
Total Mass Grocery Retailers	5.57	5.68	5.84	6.11	6.38	6.65	6.92	7.21

*e/f = BMI estimate/forecast. Source: BMI*

**Table: Sales Breakdown by Retail Format Type - 2006 & 2016**

	2006	2016f
Organised/MGR	40%	60%
Non-organised/Independent	60%	40%

*f = BMI forecast. Source: BMI*

## Macroeconomic Context

### **Growth Slowdown Underway**

**BMI View:** The latest data coming out of Argentina suggests that the economy is in the midst of a slowdown. We are keeping our end-08 and end-09 real GDP forecasts at 6.0% and 3.6% respectively, but caution that given the pro-cyclical nature of economic policy, the risks lie to the downside.

Several economic activity indicators are suggesting that the Argentine economy is in the midst of a slowdown. Industrial production growth is cooling, retail sales are stalling, and the construction sector contracted in June. Fiscal data also show that value added tax (VAT) receipts are less than impressive given the still-expansionary policy mix and high inflation rate. While some of the recent decline in activity across the board can be put down to the disruptions caused by the farmers protests, we remain convinced that a sharp slowdown is underway. We believe that our 6.0% real GDP growth forecast (down from 8.7% in 2007), which remains above consensus expectations, may even prove to be on the high side should the economy fail to rebound significantly now that an end to the farming conflict has been reached.

As the accompanying chart illustrates, industrial production growth is exhibiting a clear downward trend. The June figure of 1.6% y-o-y was the lowest outturn since 2002, and down from 5.2% y-o-y in June 2007. The drop was largely driven by the 9.8% y-o-y decline in food and drink production, which, in turn, was the result of lengthy roadblocks that prevented agricultural produce from reaching the market. Notwithstanding the potential for a slight rebound in the July figures, we believe that the long-term decline in the 12-month moving average will continue. On the supply side, we note that the recent decision taken by President Cristina Fernández to raise commercial and industrial electricity tariffs by 10% will come as a blow to the energy intensive sectors of the economy, while mounting economic and political uncertainties will undermine investment. On the demand side, a slowing global economy will continue to hurt demand for Argentine industrial exports and stagnant real wages will reduce consumer demand. The decline in domestic demand can already be seen in the retail sector, where the three-month moving average growth of nominal shopping centre sales hit its lowest level since January 2007 at 24.8% y-o-y.

Perhaps the most clear cut indication of the slowing economy can be seen in the construction sector. Since the economic recovery that began in 2003, the construction sector has averaged an impressive annual rate of expansion of 18.2%, but the trend has been firmly downward since 2004. Moreover, the June contraction of 1.8% y-o-y was the first since the crisis period, and marked a sharp turnaround from the 5.8% y-o-y expansion recorded in May, and the 7.1% y-o-y figure in June 2007. While, again, some of this slowdown can be attributed to the general decline in activity related to the farming conflict, we expect the downtrend to continue, which will weigh heavily on the headline economic growth figure.

Although we are still forecasting robust growth this year of 6.0% as the economy's momentum remains strong (real GDP growth expanded by 8.4% y-o-y in Q108) and government spending continues to be highly expansionary, we see the potential for a more acute slowdown in 2009 and beyond. At present we are forecasting real GDP growth to come in at 3.6% in 2009 and 3.5% in 2010, but caution that given the mounting political uncertainty and the deteriorating inflation outlook, there are growing risks that the economy will further underperform. We note that the **Banco Central de la República Argentina** (BCRA)'s recently trimmed forecast still sees expansion of 7.3% this year and 5.5% next year. However, given the uncertainty surrounding inflation reporting (the decision, made in July, to hike the minimum wage by 27% is further support to our view that official inflation is underreported), we believe that growth may be overstated depending on whether the GDP deflator matches the true increase in the price level.

### Risks To Outlook

In addition to the threat of political instability, which may intensify going forward (the mid-term elections in October 2009 could see a destabilising shift in power), and that of falling real wages owing to rising inflation, we note that a major risk to growth comes from the deteriorating fiscal accounts. Government spending rose by an annual rate of 41% in May, while VAT receipts grew at a 16-month low of 22%. With commodity export prices falling and the economy slowing, the pro-cyclical nature of the administration's fiscal policy will mean that spending growth will have to be curbed significantly, potentially exacerbating the slowdown. The rejection of the export tax hike in congress in July has meant that more taxes are likely to be levied in other areas of the economy (local newspaper reports suggest that income tax may be raised on earnings over ARS20,000 per month), which will further dampen the medium term growth outlook.

**Table: Argentina - Economic Activity**

	2005	2006	2007e	2008f	2009f	2010f	2011f	2012f
Nominal GDP, ARSbn <sup>1</sup>	531.9	654.4	812.1	987.5	1243.5	1544.3	1894	2282.2
Nominal GDP, US\$bn <sup>2</sup>	182.1	212.96	260.76	313.48	379.7	441.22	511.9	585.19
Real GDP growth, % change y-o-y <sup>1</sup>	9.2	8.5	8.7	6	3.6	2.4	2.9	3.2
GDP per capita, US\$ <sup>1</sup>	4,699	5,442	6,597	7,852	9,416	10,834	12,445	14,086
Population, mn <sup>3</sup>	38.8	39.1	39.5	39.9	40.3	40.7	41.1	41.5
Unemployment, % of labour force, eop <sup>1</sup>	11.6	10.2	8.4	8.2	7.8	8.4	8.8	9.1

Notes: <sup>e</sup> BMI estimates. <sup>f</sup> BMI forecasts. Sources: <sup>1</sup> INDEC. <sup>2</sup> BMI; <sup>3</sup> World Bank/INDEC.

## BMI Forecast Modelling

### How We Generate Our Industry Forecasts

**BMI**'s industry forecasts are generated using the best-practice techniques of time-series modelling and causal/econometric modelling. The precise form of model we use varies from industry to industry, in each case being determined, as per standard practice, by the prevailing features of the industry data being examined. **BMI** mainly uses OLS estimators and in order to avoid relying on subjective views and encourage the use of objective views, **BMI** uses a 'general-to-specific' method. **BMI** mainly uses a linear model, but simple non-linear models, such as the log-linear model, are used when necessary. During periods of 'industry shock', for example poor weather conditions impeding agricultural output, dummy variables are used to determine the level of impact.

Effective forecasting depends on appropriately-selected regression models. **BMI** selects the best model according to various different criteria and tests, including, but not exclusive to:

- $R^2$  tests explanatory power; Adjusted  $R^2$  takes degree of freedom into account
- Testing the directional movement and magnitude of coefficients
- Hypothesis testing to ensure coefficients are significant (normally t-test and/or P-value)
- All results are assessed to alleviate issues related to auto-correlation and multi-collinearity

**BMI** uses the selected best model to perform forecasting.

It must be remembered that human intervention plays a necessary and desirable role in all of **BMI**'s industry forecasting. Experience, expertise and knowledge of industry data and trends ensures that analysts spot structural breaks, anomalous data, turning points and seasonal features where a purely mechanical forecasting process would not.

Within the Agribusiness industry, this intervention might include, but is not exclusive to, technology development that might influence future output levels (for example greater use of biotechnology), dramatic changes in local production levels due to public or private sector investment, the regulatory environment and specific areas of legislation, such as import and export tariffs and farm subsidies, changes in lifestyles and general societal trends, the formation of bilateral and multilateral trading agreements and political factors.

The following two examples show the demand (consumption) and the supply (production) of rice. Note: the explanatory variables for both of them are quite similar, but the underlying economic theory is different.

Example of Rice Consumption Model:

$$(\text{Rice Consumption})_t = \beta_0 + \beta_1 * (\text{Real Private Consumption per capita})_t + \beta_2 * (\text{Inflation})_t + \beta_3 * (\text{Real Lending Rate})_t + \beta_4 * (\text{Population})_t + \beta_5 * (\text{Government Expenditure})_t + \beta_6 * (\text{Food Consumption})_{t-1} + \varepsilon_t$$

Where:

- $\beta$  are parameters for this function.
- Real Private Consumption per capita has a positive relationship with Rice Consumption, if rice is a normal good in a particular country. If rice is an inferior good in a country, the relationship is negative. So the sign of  $\beta_1$  is determined by a specific product within a specific country.
- When Inflation is high, people with rational expectations will consume 'today' rather than wait for 'tomorrow's high price to come. Higher rice demand in Year t due to higher inflation in that year leads to an assumed positive sign of  $\beta_2$ .
- The relationship between Real Lending Rate and Rice Consumption is expected to be negative. When real lending rates increase, disposable incomes, especially for those with mortgage burdens etc, will decrease. So the sign of  $\beta_3$  is expected to be negative.
- Of course, other things being equal, growth in rice consumption can also be caused by growth in population. Consequently, positive sign of  $\beta_4$  is expected.
- Government Expenditure typically causes total disposable incomes to rise. So the sign of  $\beta_5$  is expected to be positive.
- Human behaviour has a trend: A high level of food consumption in previous years means there is very likely to be a high level of food consumption the next year. So the positive sign of  $\beta_6$  is expected.
- $\varepsilon$  is the error/residual term.

Example of Rice Production Model:

$$(\text{Rice Production})_t = \beta_0 + \beta_1 * (\text{Real GDP per capita})_t + \beta_2 * (\text{Inflation})_t + \beta_3 * (\text{Real Lending Rate})_t + \beta_4 * (\text{Rural Population})_t + \beta_5 * (\text{Government Expenditure})_t + \beta_6 * (\text{Food Production})_{t-1} + \varepsilon_t$$

Where:

- The same as above, the relationship between Real GDP per capita and rice production depends on whether rice is normal or inferior good in that country.

- If high inflation is caused by food prices increasing, farmers will be more profitable. Then they will supply more agricultural product (e.g. rice) to increase their marginal (extra) profit, although this is tempered by the rising cost of other inputs in line with inflation.
- There is a global move towards corporate farming, away from small holdings, in order to achieve greater agricultural productivity. Corporate farming means more investment in the modes of production i.e. agricultural machinery. Higher real lending rates discourage investment, which in turn reduce production.
- BMI assumes only the rural population has a positive effect on agricultural product supply.
- With supportive government policy, other things being equal, rice production is expected to go up. Government Expenditure is likely to play some role in supporting agribusiness.
- Again, previous food production positively affects this year's prediction.