



International Trade Report

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Argentina's Soybean Complex Competitiveness

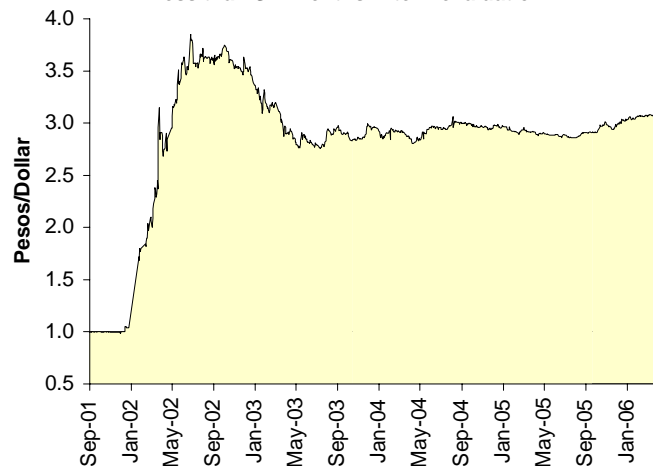
Introduction

Recently, FAS analyst traveled to Argentina on a fact-finding trip. This report represents the summary of these findings. Argentina's limited domestic demand for soybeans and products has forced its industry to focus on exporting soybeans and products. Soybean exports are charged a 23.5 percent export tax and meal and oil exports are charged a 20 percent export taxes. Despite the export taxes Argentina remains the worlds 3rd largest exporter of soybeans and largest exporter of meal and oil. Argentina's ability to compete in this environment comes from an ability to improve efficiency.

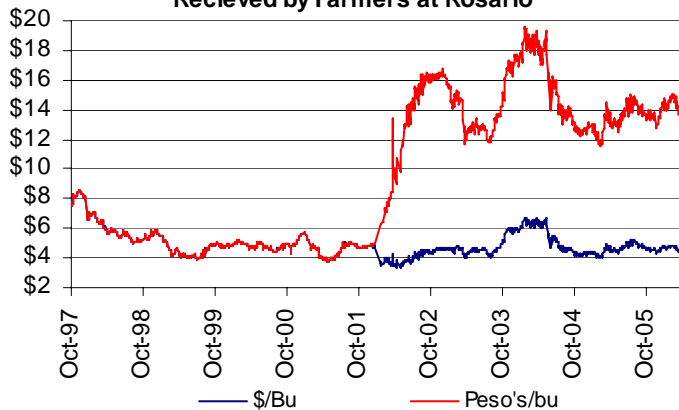
Devaluation Lowers Farm Debt and Increases Returns

In 2005/06 marketing year, soybean area increased for a third consecutive year to a record 15 MHa. One of the reasons for this was that in January 2002 Argentina allowed its peso to float against the dollar, other reasons for the increase was biotechnology and double cropping. By May of the same year the exchange rate had risen from 1:1 to 3:1. This large shift in exchange rates meant that farmers who owed \$30,000 dollars on a bank note now only owed \$10,000 to the bank. This massive reduction in debt allowed many farmers the chance to payoff their debts, as commodities in the local market are priced in dollars.

Argentina's Exchange Rate Rose to More than Three to One Less than Six Months After Devaluation



Soybean Prices Received by Farmers at Rosario



Since soybeans are priced in dollars, the reduction in debt increased the value of soybeans in Argentina. Soybean prices received at Rosario (in pesos) experienced a sharp increase as the peso weakened. This increase in the value of soybeans is one of the main driving forces to the 33 percent (3.8 MHa) increase in Argentine soybean area since April 2002.

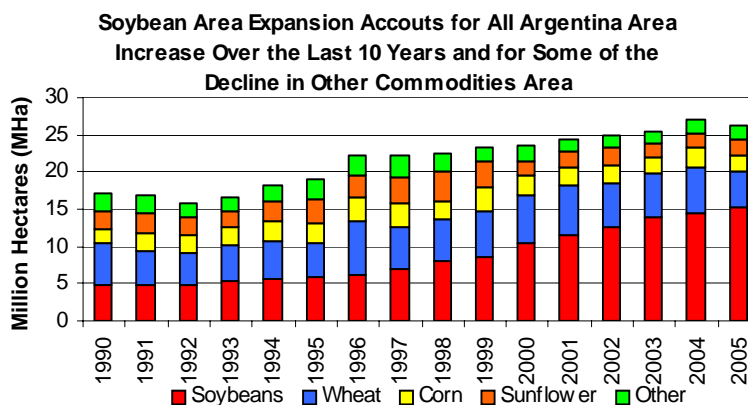
Soybean Expansion/ Ever-Increasing Cropped Area

The total crop area in Argentina has risen over the last 10 years. In 1994/95 total harvested area was approximately 15.7 million hectares; today total harvested area is near 25 million hectares for grains, oilseeds, cotton and rice. The increase in cultivated area has been from previously uncultivated land being put into crop production, and the increase in area devoted to double-cropping practices.

According to some sources there are three agronomical phenomenons responsible for the increase in area: biotechnology, no-tillage practices, and the current wetter phase of the climatic cycle.

First, biotechnology has resulted in increasingly shorter cycle soybeans, which have allowed double-cropping in areas previously planted with only one crop per growing season. Many soybean farmers previously planted maturity groups 5, 6, and 7, but now can use maturity groups 3 and 4 which not only have a shorter cycle but yield more than the older varieties. “Maturity group” is a designator for the length of the growing season. Typically higher maturity groups are longer season varieties, while lower numbered maturity groups designate shorter season varieties. While the newer and shorter maturity groups like 3 and 4, may yield more than their older and longer-season counterparts, they are generally more susceptible to adverse weather. A maturity group 2 soybean is even grown experimentally in some areas. (It should be noted, however, that these shorter-cycle soybeans do not always perform as well in adverse growing conditions as their older counterparts.) Many areas in the northern provinces, which have a growing season of approximately 270 days have adopted a double-cropped system. Areas in the south, which have a much shorter growing season of approximately 180 days, are also adopting a double-cropped system with the advent of shorter maturity varieties and practices such as intercropping.

Intercropping is where soybeans and other crops are growing in the same field at the same time. In the case of wheat, you would plant you wheat in June leaving 2 empty rows for every 3 you plant of wheat. Then in November you come through and plant soybeans in the empty rows. This allows one to plant their second crop soybeans at the first of November; instead of the end of November. After the soybeans are planted the wheat is harvested in December, with the combine driving down the harvested rows. Wheat planted in this manner gets about 90 percent of its normal yield and soybeans get 500 Kg/Ha more than soybeans planted after wheat. Intercropping, however, is still mainly done on an experimental level, but if widely adopted in the upcoming years Argentina’s planted area may continue to increase.



Unlike double-cropping which has led to increased planted area on the same land, no-till technology has allowed for areas to be planted which were previously unsuitable for agriculture, such as in the “expansion” areas of the north and west. No-tillage farming has increased dramatically in Argentina and in some areas, such as in Tres Arroyos and Balcarce, the adoption rate is 100%. No-tillage has allowed previously unsuitable (i.e. dry) lands to be farmed by increasing water retention and infiltration and by reducing production costs, making the “break-even” point lower in less productive areas.

A third reason for the increase of cropped areas is the general increase of precipitation in many areas due to an agriculturally-favorable, moister phase of the climatic cycle. According to some meteorologists, this “moist” phase should last until 2050. While some believe that many agricultural areas in Argentina are in a moist phase, Chaco, southern Cordoba, southern Santa Fe and parts of Buenos Aires, witnessed severe dryness over the last growing season. Time will tell if this “moist” phase comes to fruition. Nonetheless, total cropped area – both “expansion” area and “virtual” area (i.e. double-cropped area) — has proven to be on the rise. The total “expansion” land may be a fraction of Argentina’s total agricultural areas, however combined with double-cropping; it has significantly increased the number of hectares which have agricultural potential, possibly leading to an increase in planted area for more years to come than previously thought.

Currently total planted crop area is estimated at approximately 27.5 million hectares and soybean area makes up 57% of this total area. Seed technology, including shorter cycle soybeans and Roundup Ready technology have led to the major reason soybeans make up such a large percentage of the total area— increased profitability over other crops. According to Argentine sources, the cost of production in the northern Buenos Aires province (excluding land rent and contracted harvesting services) for each crop in dollars per hectare were the following: corn: \$222; wheat: \$167; sunflower seed: \$112; first-crop soybean: \$117; second-crop soybean: \$81. What makes soybean more attractive to many farmers is a reduced need for fertilizer. Typically wheat and corn are fertilized and soybean is not. Sunflower seed, by comparison, requires little fertilizer. Fertilizer is expensive and that has also contributed to less area being planted to wheat and corn.

Lower Prices Caused by Export Taxes Force Farmer to Increase Efficiency

Argentine soybean and soybean meal exports are assessed an export tax of 23.5 and 20 percent, respectively. The differential tax between soybeans and the products increases Argentina’s competitiveness in exporting soybean meal and oil, by reducing the internal price of soybeans. The internal price of soybeans is 23.5 percent less than the international price of soybeans due to the export tax. Meaning that if the FOB price of soybeans is \$5.50/bu, Argentine farmers would expect to receive \$4.20/bu less the fees at the port. In 2005, Argentina generated more than 1.4 billion \$US from the export taxes assessed on soybeans and products. Based upon interviews with local industry contact, the majority of the revenue generated by the export tax is not used for agricultural budgets. Since Argentine farmers lose more than 23.5 percent of the commodity price off the top they have been forced to become more efficient. The following table shows how Argentine costs compare to U.S. costs.

| Soybean Cost Argentina vs U.S. | | |
|--------------------------------|-------------------------|-----------------------------|
| | Argentina | U.S. |
| Land Values | \$5000/Ha | \$6,800/Ha ^{/1} |
| Rent | \$200/Ha | \$290/Ha ^{/1} |
| Operational Costs | 600-800 kg/Ha | 935-985 kg/Ha ^{/2} |
| Average Farm Price in 2004/05 | \$4.70/bu ^{/3} | \$5.50/bu ^{/4} |

^{/1} - ERS Corn Belt Land Prices from the Land Values and Cash Rents 2005 Summary

^{/2} - Based on ERS Prices converted from dollars/acre using a \$5.50 price

^{/3} - Based on the average Rosario spot price for 2004/05 MY.

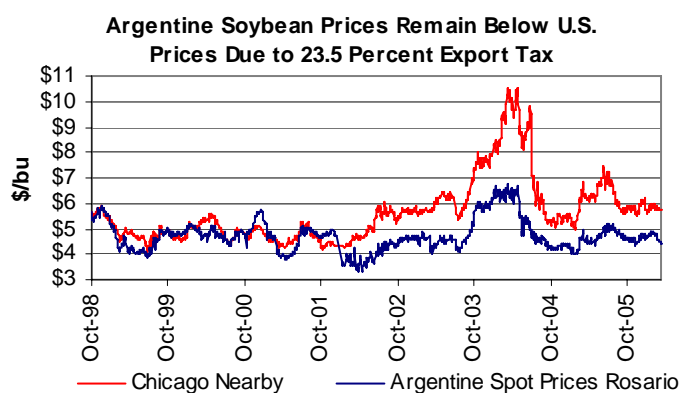
^{/4} - Based on USDA published price

In addition to Argentina's excellent farm management practices mentioned earlier, farmers there have also increased their efficiency by contracting labor and discovering alternatives to elevator storage. By contracting the planting, harvesting, transportation, etc. farmers have been able to reduce their operating cost by allowing a specialized entity to handle these issues. The majority of both large and small farmers in Argentina do not own or only own a minimum amount of equipment; instead they contract services from private individuals. This is a practice that has been in place since the 1970's, allowing farmers to develop business relationships with the contractors.

The introduction of the silo bags in 2003/04 greatly reduced the shortage of storage in Argentina caused by the large growth in prior years. Silo bags are large plastic bags typically 50 meters long, which will hold 210 MT of soybeans, or 220 MT of corn or 230 MT of wheat. The product is blown into the bag which is unrolled as it fills and is then sealed air tight in the bag until such time it is to be loaded into a truck and sent to the elevator. Grains and oilseeds can be stored in these silo bags for more than 1 year if needed, without any significant loss in quality.

Soybeans and Products Use and Trade

The Argentine soybean industry differs from the United States and Brazil in that a very small percentage of their soybeans are consumed domestically. Despite a growing poultry and swine industry Argentina's soybean meal use still accounts for less than 5 percent of their total soybean meal production. Soybean oil is in a similar situation in that, the majority of soybean oil is exported as consumers prefer sunflower oil over soybean oil and there is no significant bio-diesel program at this time in Argentina.



Since there is no domestic demand for soybeans, about 95 percent of Argentina's soybeans and products are exported, with the majority of exports going out as products. However, in Argentina soybeans are priced as if they will be exported as soybeans, and are therefore assessed the 23.5 percent export tax, lowering the domestic price of soybeans. Since only about 25 percent of Argentina's soybeans are exported as beans, the remainder of soybeans are bought at a discount, by the crushers and exported as meal and oil.

The 40.5 MMT production forecast in 2005/06, implies that Argentina's soybean exports will likely exceed 10 MMT for the second year in a row, making Argentina the third largest exporter of soybeans. Argentina's strong exports are the result of strong demand from China where Argentina exports more than 60 percent of its soybeans. Strong exports have continued despite an increase in crush capacity from 130,000 MT/day in 2005 to an estimated 160,000 MT/day in 2006. Argentina's soybean exports are competitive around harvest when soybean supplies are at their highest. Argentina soybean exports are heavily frontloaded with more than 90 percent of exports occurring during the 4-5 month period after harvest. The large quantity of beans that arrive at elevators shortly after harvest cause domestic soybean prices to fall and allow Argentina the ability to export soybeans. During this time Argentine soybeans are competitive in an international market dominated by Brazil, despite the 23.5 percent export tax.

Unlike soybeans, soybean meal and oil are exported in consistent amounts every month. Argentina is the world's largest exporter of both soybean meal and oil with a record 22 MMT and 5.2 MMT, respectively forecasted for 2005/06. Argentina supplies 43 percent of global soybean meal exports and is one of the few growing exporters of soybean meal in the world. While Brazil's soybean meal exports have grown dramatically over the last 10 years, they have not seen any substantial increase over the last 3 years due to growing domestic demand and poor crops. And while the U.S. remains the largest producer of soybean meal in the world, exports are relatively weak as they are dependent on growth in Mexico and Canada due to a lack of competitiveness in other countries. Unlike other major exporters Argentina has an advantage in export market, as the majority of its crushers are located at the port or along a major transportation line to the port.

Argentina is also the largest exporter of soybean oil. In 2005/06, Argentina is forecast to account for more than 50 percent of global soybean oil exports. Argentina is the dominant supplier to the world's two largest markets China and India, with a 75 percent and 65 percent market share in 2004/05, respectively. Argentina's soybean oil exports are expected to continue to increase.

Future of Argentina's Soybean Market

The future of Argentina's competitiveness in the global soybean market will depend on what happens to their exchange rate. For the last few years Argentina's exchange rate has remained at or above 3 pesos per dollar. At the current exchange rate Argentine exports are competitive; however, should this exchange rate begin to strengthen relative to the dollar, Argentina's agricultural sector could begin to feel pressure, similar to what has happened in Brazil. In 2005/06, soybeans are expected to be one of the most profitable crops to produce in Argentina; while just to the north in Brazil, soy farmer's profits are expected to decline sharply, not because of a poor crop but because the value of soybeans has declined. The decline in the

Brazilian Real from more than 3 reals/dollar in early 2004/05, to around 2.1 today has greatly reduced the profitability of soybeans in Brazil, even causing some of the marginal land to be taken out of production. If the exchange rates strengthen in Argentina, we can expect to see



similar pressure be put on the Argentine farmers as was put on Brazilians. However, the low input costs and relative ease of growing soybeans will likely limit the amount land converted to other crops and would instead reduce plantings on more marginal lands.

Given the exchange rates remain favorable, Argentina's soybean production will likely remain strong, as will exports of soybeans and products. However, if Argentina's soybean production were to increase substantially, it would be unlikely that Argentina would increase soybean exports, due to large investments in crushing facilities in Argentina. In 2006, Argentina's crushing capacity is forecast to reach 160,000 MT/day (with more under construction for 2007), while crush is only forecast to reach 88,100 MT/day (29.1 MMT). Therefore, a large percentage of the increase in Argentina soybean production will need to be crushed and exported as meal and oil to prevent this gap from widening further. Argentine exports will likely improve as the Parana River (similar to the Mississippi in the U.S.) will be dredged from 32 ft to 36 ft, allowing ships to fully load in Rosario. Before, ships leaving Rosario would need to stop in Argentina's southern port of Bahia Blanca or Paranagua in Brazil and top off their load. Dredging will begin shortly to 34 ft. with the goal of dredging the river to 36 ft.

Earlier it was stated that roughly 95 percent of all Argentina's soybeans are exported in some form. This is not a statistic that is likely to change in the short term, as there are a number of unknowns about global poultry consumption that are likely to limit expansion of Argentina's poultry industry. However, if the biofuels legislation, which is being debated by their congress now, is passed later this year Argentina could increase its domestic consumption of soybeans. There are reports that Argentina is already exporting small amounts biodiesel to Europe. Argentine bio-diesel is desirable to foreign importers as it is relatively cheap since it is not assessed an export tax. However, since biodiesel is not approved for use in Argentina there are very few producers. Biodiesel production will likely increase with the adoption of the biofuels laws; however, an export tax is likely to be assessed also. The widespread acceptance of biodiesel in Argentina could be very beneficial to farmers there as it would give them a domestic market for their soybeans. If larger quantities of soybeans are consumed domestically it could help reduce the pressure put on the soybean price by the export taxes.

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