

ANNEX: Additional Price Analysis
March 2012

Nicaragua

This annex offers an analysis of price dynamics in the Nicaraguan maize market as well as a benchmark (expected) price against which the significance of actual price changes are judged.

Major findings

- After the sharp decline of September, prices have been relatively stable in the latter months.
- Benchmark prices are expected to increase up to 7720, 8020 and 8350 NIO/ton in March, April and May respectively

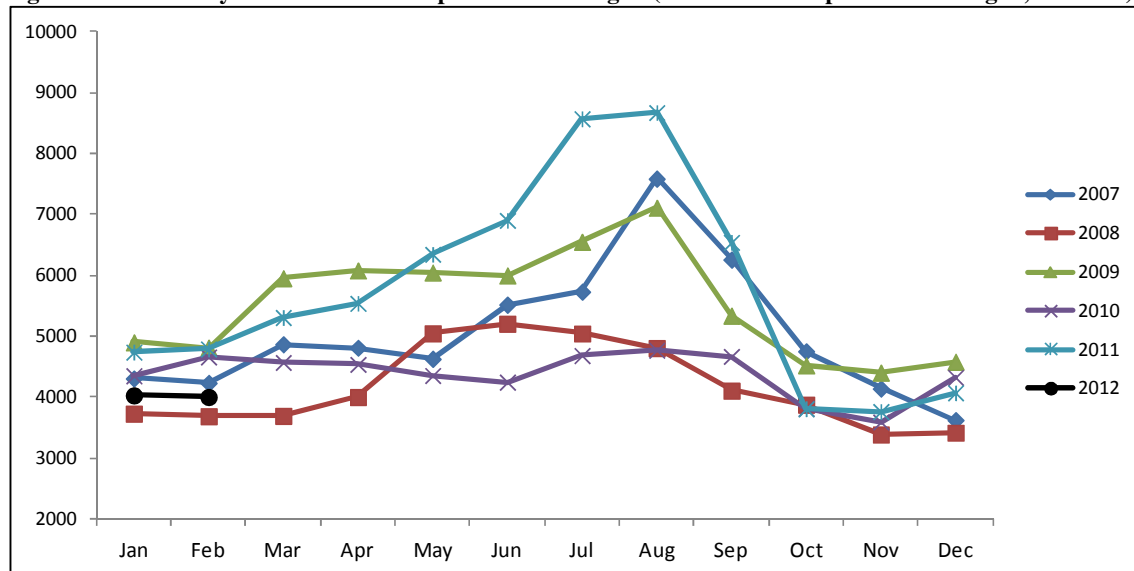
Five Year Overview of Price of White Maize in Nicaragua (March 2007- February 2012)

Real price of maize (i.e. adjusted for inflation) experienced a sharp rise in the first part of 2007, followed by a drop in the second part of the year. In August of 2007, prices were 76% higher than in January, whereas prices recorded in December were 16% lower. After the decline, prices remained relatively low until the end of 2008.

In January 2009 prices rose sharply again and almost reached the 2007 levels. August 2009 price was 56% higher than a year earlier. Prices experienced another sudden fall and remained stable until the end of 2010. Prices (measured in real Cordoba Oro unless specified otherwise) rose again in 2011 and peaked in August. In August 2011, prices were 91% higher than a year earlier. However, prices fell sharply in September (-44%) and remained relatively stable until February 2012.

Volatility measured by the coefficient of variation (CV) was 9% from March 2010 to February 2011. However, the volatility for the latest 12 months has been 32%. Volatility recorded in 2011 has been the highest of the latest years and has been determined by the increase in prices for the first part of 2011 (with prices well above the average of the latest years) followed by the sharp fall occurred between August and October. The maize market, in general is very volatile in Nicaragua, although prices follow seasonal patterns.

Figure 1: 12 Monthly Real White Maize prices in Nicaragua (Real wholesale prices in Managua, NIO/ton)



Comparison of Actual Prices with Benchmark (Expected) Prices

Commodity future markets can be helpful predictors of what grain prices will be in the next few months (short-term). Unfortunately, there are no future markets for staple grains in the majority of developing countries. The ESA Price Monitoring Model is a simple tool designed to assist policy makers, farmers and traders in assessing whether recent price trends are in line with those typically observed in the past.

ESA Price Monitoring Model: The purpose of the model is to determine whether short term price movements of a commodity exceed a benchmark which takes into consideration seasonality, inflation and historic variability. The model uses only data on past prices and the consumer price index (CPI) to capture these characteristics. It establishes an expected level of price for the following month along with a range of uncertainty generated by past deviations from that expected price level. Price movements can be interpreted as “excessive” if they fall above or below the uncertainty band (for details on the model please see: <http://www.foodsec.org/web/publications/briefs>)

Results: In February 2012, real maize prices in Nicaragua were about 11% lower than the average calculated in the same month of the past four years.

Actual prices in the latter months were close to the expected prices except in October and December, when prices were well below (-32%) and above (10.9%) the expected prices (benchmark) for each of those months respectively. They are marked red by the model to indicate that these deviations from the expected price are extreme relative to 70% of previous deviations. On the contrary, prices recorded in November 2011, January and February 2012 are slightly below those expected, in any case, the deviation observed is well below those considered extreme.

The benchmark price in March is expected to be near the 7720 Cordoba Oro/ton, with about a 70% chance that the deviation will be less than or equal to $\pm 8.3\%$. Prices are expected to increase in April and May, if normal seasonal patterns hold. There should be concerns, if prices are above 8415 Cordoba Oro/ton in March.

Figure 2: Price Monitoring Model (prices Cordoba Oro/ton)

