

Maize Price Projections for the 2006 /07 Marketing Season

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Objective

The coming 2005/06 maize harvest promises to be a good one, certainly better than last season. Market prices have begun falling. How far are they likely to fall?

Currently, government has placed a ban on maize exports. This short article aims to assess the likely impact on price levels this coming season, in the presence of an above-normal harvest, with and without an export ban.

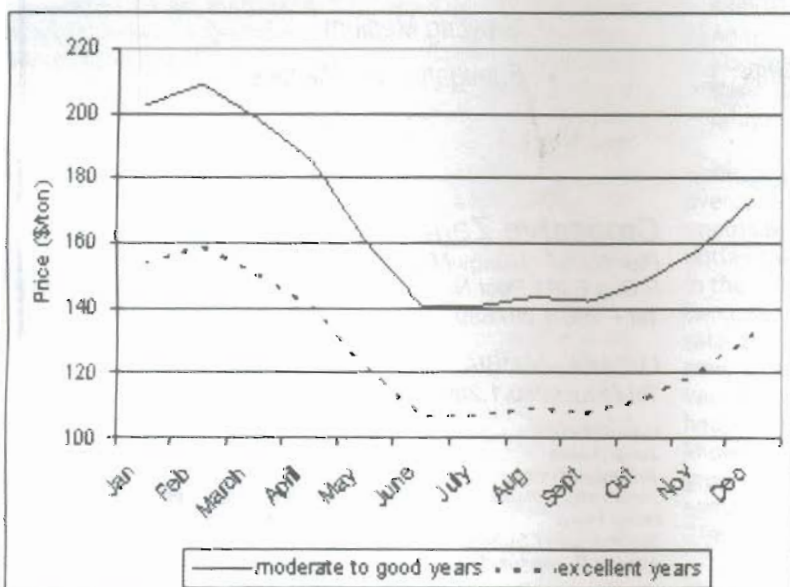
Historical Perspective on Production and Prices:

Production. Given that Zambian smallholders depend primarily on rainfed production, Zambia's maize output fluctuates significantly from year to year, as a result of changes in planted area and changing rainfall patterns. Historical data over the last twelve seasons indicate that national maize output varies by up to 100% from bad to good years (Table 1).

Average annual prices. Price levels likewise fluctuate, though not as much as production. Historically, average annual prices vary by about 50% from bad to good years (Table 1).

Seasonal price patterns. Given a single main harvest, maize prices typically move in a pronounced 12-month cycle. Although seasonal patterns vary slightly across regions, trends from Lusaka serve to illustrate the principal movements. In Lusaka the maize wholesale price typically peaks in February. Then, following the new harvest, prices fall to their lowest levels around July (Figure 1). The question now is how low prices are likely to fall in the coming season.

Figure 1. Maize Price Seasonality in Lusaka, 1994-2005



Source: AMIC.

Table 1. Historical Maize Production and Price Movements in Zambia

Year	Harvest	Production tons	Price*	
			\$/ton	% change
1994	good	1,020,749	\$150	
1995	moderate	737,835	\$208	
1996	excellent	1,409,485	\$127	
1997	moderate	960,188	\$173	
1998	bad	638,134	\$183	
1999	moderate	822,056	\$135	
2000	moderate	881,555	\$116	
2001	bad	601,606	\$192	
2002	bad	602,000	\$244	
2003	good	1,161,000	\$169	
2004	good	1,113,916	\$150	
2005	moderate	866,187	\$236	
Averages, 1994 to 2005				
	excellent	1,409,485	\$127	-27%
	good	1,098,555	\$156	-10%
	moderate	853,564	\$174	0%
	bad	613,913	\$206	19%
baseline	good to moderate	945,436	\$167	

* Lusaka into-mill price for the marketing year, May- April.

Source: MACO, FAOSTAT, AMIC.

Projections for the 2006/07 marketing season:

Baseline. The following projections take as their baseline historical norms for good to moderate production years. These amount to eight of the past twelve production seasons, when national output averaged 945,000 tons and average annual into-mill price in Lusaka averaged \$167 per ton (Table 1). Given typical seasonal price movements, the monthly wholesale maize price normally ranges from a low of \$141 per ton in July to a high of \$209 per ton in February.

2005/06 production. Crop forecasts for the current season remain under active discussion, with initial estimates ranging between 1.4 million and 1.2 million tons. As a starting point, the following projections compare these historic norms to a year when production increases to 1.2 million tons.

Projection method. These projections rely on historical data coupled with a small spreadsheet model of the Zambian maize market. The simple model underlying these projections uses standard measures of consumer price responsiveness together with an ordinary supply and demand framework to estimate a plausible range of market prices under various export scenarios.

Prices projections under an export ban. Under an export ban, and given a projected 30% production increase this season over the "normal" baseline harvest of 945,000 tons, the model projects that average maize prices would fall between 20% and 40% below their historic norms. This would lead to average annual prices between \$100 and \$130 per ton, with a July low in the range of \$85 to \$110 per ton.

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