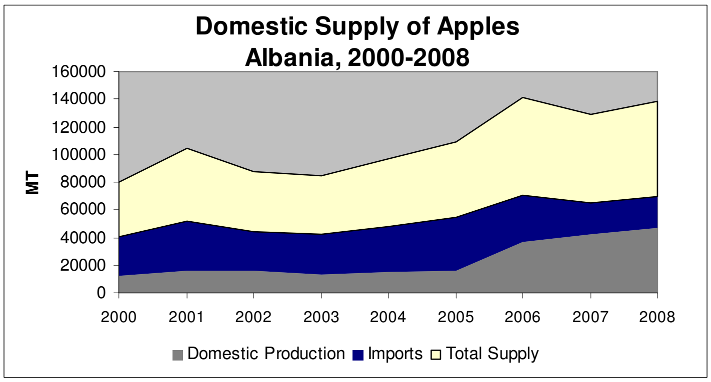
MARKET BRIEF

Optimizing the Use of Cold Storage Facilities

Apple production in Albania is increasing at a relatively rapid pace; total output reached 36,500 metric tons in 2006 and key industry players estimate that domestic production reached 44,000 metric tons in 2008[1]. This increase in domestic production in consistent with the revitalization of the Albanian apple industry through the expansion in area grown to this fruit and recent increases in productivity.

Figure 1. Historical Domestic Supply Trend



Domestic apple production surpassed imports in 2006 as Albanian apples make their way into the local markets. In 2007 Albania imported US$12.45 million worth of apples, with Greece, Italy and Macedonia supplying 54.5, 31.5 and 14 percent, respectively. A review of the statistics (2003-2007) showed that Golden Delicious is the most popular variety, representing over 25 percent of total apple imports.

According to INSTAT[2] data, apple consumption has followed an increasing trend; in 2007 Albanian households spent an average of 624 Lek per month in this product, which represents a 20 percent increase as compared to 2005 and a 39 percent increase when compared to 2002. Therefore, future increases in expendable household income are expected to result in increased demand for apples and other fruits.

While domestic apple production is increasingly substituting imports and consumer demand is likely to grow due to increases in expendable income of urban communities, there is a gap in knowledge regarding the optimal time to bring apples from storage to the market. This is particularly important because 2008 is the first year of operation of commercial cold storage facilities in the country which brings about several challenges in both the pre-harvest and storage phases. The challenge for the short-term will be to inform the decisions of cold storage operators regarding the optimal storage times based on technical feasibility, market prospects and profitability. This brief will address these questions through a simple analysis of the behavior of market demand for apples, price curves and storage costs, seeking to identify the period in which cold storage operators can realize the largest profits**.**

Price Patterns

Figure 2 shows the trend of domestic wholesale prices for the period October 2006 – August 2007, which according to industry representatives is consistent with seasonal consumption patterns across years. The price reaches its peak in July, the time of greater apple scarcity. Price then follows a downward trend in the period October-December, consistent with the harvest season and increases from January to June as domestic stocks deplete.

---

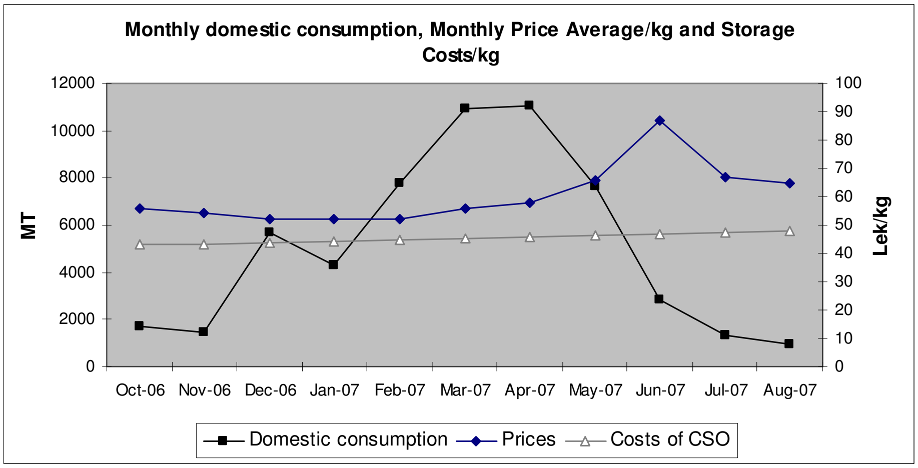
[1] Estimations based on the baseline for 2006 and discussions with industry experts, including producers, traders and cold storage operators.

[2] National Institute of Statistics

Market demand

Market Demand behaves slightly different; December shows an exceptional increase associated to the end of year holidays, followed by a small decline in January (Figure 2). Demand for apples is strong during the period February-May, reaching its peak in April, followed by a decline in the period June-September.

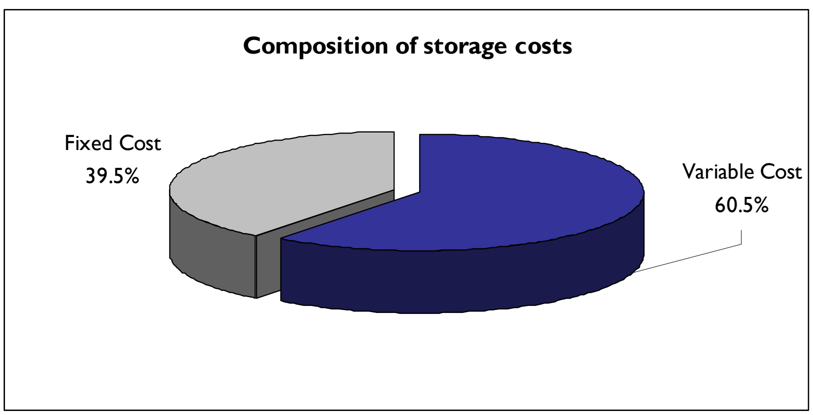
Figure 2: Domestic demand, historic prices and cold storage operator costs



Storage costs

Financial data from cold storage operators show an average product cost of 47 Lek per kilogram for the 2008 harvest season, while average storage costs are at the level of 0.43 Lek per kilogram per month. This figure can be further disaggregated into fixed and variable costs, representing 39.5 and 60.5 percent of total cost, respectively.

Figure 3: Composition of storage costs



Taking into consideration the cost of apples, and storage costs, cold storage operators would have the ability to store apples for as long as seven months before breaking the 50 Lek-barrier, based upon which storing apples until June would make the most sense, as it would result in the greatest profit and a reasonable level of demand.

While there are no questions regarding the profitability and the market potential for refrigerated apples, the decision on the length of storage for apples harvested in 2008 will require the consideration of technical aspects. Considering that the storage life of the apples harvested in 2008 will be limited by pre-harvest practices that resulted in over-mature fruit, in addition to a steep learning curve regarding the operation of the equipment, the aim for the 2009 marketing season should be on reducing storage losses, as opposed to maximizing revenues, with opportunities in the December-February period.

AAC is continuing its support to the different actors in the apple value chain through technical assistance to ensure increases in productivity, the improvement of crop quality and efficient markets.