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# Managing Cotton Price Volatility in Egypt

*Policy Viewpoint is intended to contribute to the discussion of ideas and policy options for enhancing economic development in Egypt. The series is based on research conducted by ECES. The content and recommendations are endorsed by the Center's Board of Directors.*

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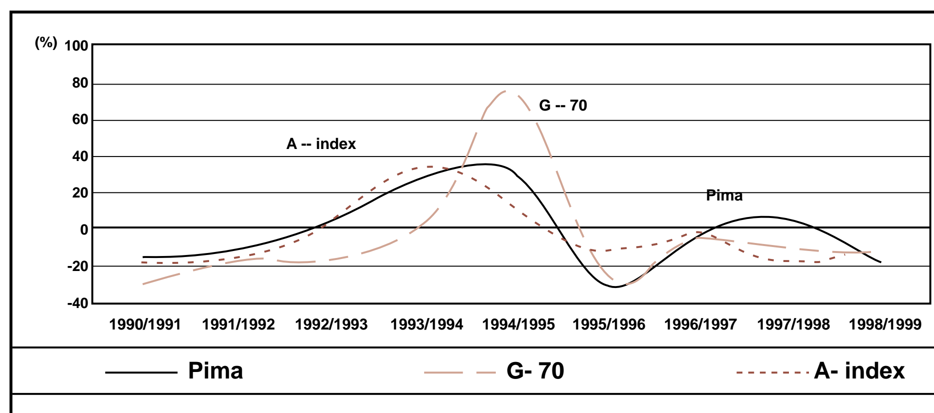
The volatility of cotton prices is a notable feature of the world cotton market. For major exporters of cotton like Egypt, it is vital to devise an effective mechanism for managing cotton price volatility to protect the interests of farmers, traders, industrialists, and the economy at large. It is not surprising, therefore, that the Egyptian government has adopted a policy that guarantees farmers a floor price.

Notwithstanding the well-intended objectives of this policy, the analysis below shows a number of shortcomings in the approach followed and its implementation. Accordingly, questions arise as to whether the current approach is the most suitable for Egypt. If Egypt were to retain the current system for now, what are the necessary reforms to ensure its efficiency? Finally, what system should Egypt adopt in the long run? This edition of *Policy Viewpoint* addresses these questions. The upshot of the analysis is that the current conditions in Egypt suggest that the best course of action in the short run is to continue and in the meantime reform the existing system, especially with respect to the institutional setup, pricing formula, and distribution mechanisms. Meanwhile, parallel reforms are necessary to gradually move away from the price-based subsidization scheme to direct income support and eventually to commodity derivatives.

To explain the rationale for the recommendations outlined above, this Policy Viewpoint briefly reviews the phenomenon of world cotton price fluctuations. It then goes on to to discuss  the alternative approaches to managing commodity price risk in order to assess the current cotton pricing policy in Egypt. Finally, it outlines the broad policy implications, recognizing that implementation would require more details and refinements.

**Figure 1. Volatility of World Cotton Prices, (Annual Percentage Change, 1990 / 91 - 1998 / 99)**




*Source:* Calculated from the Egyptian Cotton Gazette- *ALCOTEXA*, various issues.

## Cotton Price Volatility

World cotton prices are known to fluctuate sharply, and have come down in recent years (see Figure 1 for selected indicators). These observations apply to the American Pima, Giza-70 and the A-index. Given the high quality of most types of Egyptian cotton, the trend in the prices of American Pima and Giza-70 is the most relevant for Egypt. The A-index is less relevant since it is calculated on the basis of the average of five inexpensive types of cotton (Middling 1-3/32"). For all indicators, however, cotton prices have fluctuated over the past decade, pointing out the importance of finding an appropriate mechanism for managing price volatility in Egypt.

## Alternative Approaches to Managing Cotton Price Risk

In dealing with cotton price volatility, different countries have adopted one or more of three alternative approaches: price-based schemes, direct income support schemes, or market-based tools. Each of these approaches has its pros and cons, especially in terms of who carries the risk of price volatility. The three approaches are briefly elaborated below, noting that governments are increasingly moving away from price-based schemes to income and market-based schemes.

### *Price-Based Schemes*

Price-based schemes involve offering farmers a minimum price, which may or may not correspond to international prices. A committee, specific ministries or stabilization funds manage these schemes. They are meant to protect farmers and are based on the full undertaking of risk by government. They have been used in several countries, including the United States, China, Turkey and Brazil.

While price stabilization schemes are easier to administer than other schemes, they proved to be costly and unsustainable. These schemes place the full burden of price variability on government and leaves farmers with limited incentives to respond to market signals. As a result, they tend to overproduce in periods of low international prices because of artificially high domestic prices, resulting in large carryover of stocks. These schemes usually require large and uncertain sums of funds for an uncertain period of time, as governments are often reluctant to lower historical prices and may be tempted to increase prices at times of favorable international prices. Most governments attempt to get out of this scheme, subject to the prevailing political constraints.

### *Direct Income Support Programs*

Direct income support programs de-link support to cotton growers from production decisions. Instead, they provide the support on the basis of land ownership, historical yields and budgetary allocation. They are used in several countries, including the European Union, Mexico, and the United States, to overcome some of the problems associated with price-based schemes.

The merit of this scheme is that it motivates farmers to produce crops with the highest market value, and share the risk with the government. At the same time, it does not eliminate government support to farmers against dramatic price volatility. The disadvantages are not trivial, however. It is not always easy to define eligibility, especially where land is held informally. The support may also go to large farmers because they are better equipped to prove their ownership and production records than small farmers. Finally, the cost of the program can also be high to the treasury, although not as high as under the price-based scheme.

### *Commodity Risk Management Tools*

The more recent and novel approach to dealing with price volatility of commodities is market-based, in the sense that the actors most affected rely on hedging to protect themselves. The role of the government is simply to ensure that market institutions exist and function. This scheme is being used in some developing countries, such as Mexico (for cotton) and Guatemala (for coffee).

The market approach has the merits of transferring the risk to economic agents and reducing the cost to the treasury, while providing farmers with a mechanism to protect themselves. However, hedging against cotton price volatility in derivative markets requires highly demanding economic and institutional conditions. It requires a competitive well-functioning local market with transparent prices. It also requires technical skills with considerable knowledge of financial instruments, and an understanding of the risk structure of the economy. Finally, this approach is demanding in terms of the necessary infrastructure in areas such as communications, transportation, storage and information processing. All these preconditions may only be available in a few developing markets.

## Managing Cotton Price Risk in Egypt

The Egyptian government follows the price stabilization approach to protect cotton growers from revenue variability by guaranteeing them a floor price. It also encourages private sector participation in the collection and trading of cotton. Both activities are conducted in the spirit of balancing the interests of cotton growers, traders, and industrialists on the one hand and the cost to the treasury on the other. Below is a summary of how the system works, followed by a brief assessment.

### *The Main Features of the Current System*

The government determines the farmers' guarantee prices for seed cotton before or at the time of planting cotton (March). The price setting process is guided by the cost of production, the opportunity cost of alternative crops and historical trends. Farmers receive these prices from traders or from the government in case they use official cotton rings. With respect to lint cotton export prices, the Alexandria Cotton Exporters Association (ALCOTEXA) announces them after deducting fobbing and marketing expenses. Lint cotton export prices are announced at the beginning of each marketing season (in September) on the basis of the international cotton market conditions.

The relationship between the two sets of prices is critical. If the floor prices of seed cotton exceed the announced lint cotton export prices, trade in seed cotton becomes unprofitable. The government has a deficiency payments system to cover the difference between the two prices. When the floor prices of seed cotton are lower than the declared lint cotton export prices, the private sector can trade at a profit and hence the government does not incur any deficiency payments. The government encourages ALCOTEXA to set Egyptian lint cotton export prices at high levels relative to the American Pima, with few adjustments during the season. In contrast, the United States supports the Pima cotton growers. Overpricing and inflexibility of Egyptian lint cotton sometimes depress exports, reduce domestic demand, and lead to the buildup of large lint cotton stocks.

For the collection of and trading in cotton, farmers are free to sell their cotton at the highest price to the cooperatives, public and private traders, ginners and spinners. In addition, the government, through the Principal Bank for Development and Agricultural Credit (PBDAC), establishes sales rings throughout the country. PBDAC ensures that farmers have a buyer of last resort at the guarantee price. The Cotton and International Trade Holding Company (CIT-HC), under the supervision of the Cotton Supervisory Committee of the Ministry of Trade and Supply, allocate these rings to private and public traders. A trader is required to purchase all the seed cotton in his ring regardless of the quality and has to pay the government declared guarantee prices to PBDAC. PBDAC then pays the farmers. Traders request the deficiency payments later on. Private traders claim that they are not clear about the criteria of rings allocation, nor are they fully informed about the deficiency payment system before hand.

### *Assessment of the Current System*

The government policy has achieved its objective of protecting cotton growers from the volatility in export prices. Cotton growers captured 114-128 percent of export prices in 1997/98, and 103-104 percent in 1999/00. When the government did not set guarantee prices in 1998/99, farmers received only 89-97 percent of export prices. In addition, the policy may have helped Egypt capture greater revenue from exports in the world market, given the degree of market power Egypt enjoys in the high quality variety of cotton.

These achievements have been made at a cost, however. The government has had to allocate sufficient financial resources to the Cotton Prices Stabilization Fund. The amount of the deficiency payments in any given year is uncertain, depending on international cotton prices. When the government does not announce guarantee prices, as was the case in 1998/99, cotton growers become uncertain about the pricing policy and may be discouraged from growing cotton. This may explain, along with changes in the relative prices of cotton versus other crops, why the cotton planted area has been declining since the mid-nineties (down to 500 thousand feddans in 2000/2001, compared with about 2 million feddans in the past).

Another cost to the economy of the current system emanates from bearing the full risk of world cotton price fluctuations by government on behalf of market participants. Combined with systematically setting the floor prices higher than world prices, the risk-free price encourages farmers to overproduce even if world prices are low. Ultimately, this leads to stockpiling.

Finally, there is some concern with respect to the dispersion of decision making regarding cotton production, collection, marketing and pricing. Furthermore, a focal point is lacking to ensure that the stabilization fund is self-sufficient, that rings are allocated competitively on the basis of clear criteria, that deficiency payments are paid without delays, and that there is a link between international prices and guarantee prices. Equally important, such an entity should also be in the business of drawing and updating a strategy for the future of cotton production, processing and exporting, with the objective of making recommendations for maximizing the benefits to the economy at large.

## Reforms Ahead

In view of the volatility of cotton prices in world markets and the importance of cotton for the Egyptian economy, there is clearly a need to continue to follow one mechanism or another to protect the farmers, traders, and industrialists, as well as to minimize the cost to the treasury and capture the greatest revenue from cotton exports for the economy. The analysis in this study points out that Egypt is better off sticking to the current system and reforming it rather than shifting to income-based or market-based solutions, given the lack of necessary institutional and market preconditions for the alternative regimes at this point. While working on providing these conditions, measures can be taken to ensure that the current system is more efficient, transparent and consistent with its announced objectives.

On the basis of the previous analysis, the recommended reforms relate to the institutional setup, pricing systems, and trading. Each of these reforms is briefly described below.

### *The Institutional Setup*

Perhaps the most important recommendation is the need to create a single, independent organization to deal with all aspects of cotton production, pricing, marketing, the stabilization fund, and cotton policy formulation. The new entity should have a clear mandate, and be entrusted with the flexibility and resources to ensure its success in maximizing the benefits to the economy. Its board could include representatives of the concerned parties, but its management should have the authority to devise and implement the necessary reforms to ensure that farmers are well compensated, traders are profiting without exploitation, and cost to the treasury is minimized, except for the seed money at the initial stage of setting the stabilization fund.

### *Cotton Pricing*

While it is important to keep in mind the opportunity cost of the revenue from alternative crops in setting the floor prices, it is equally important to link seed cotton guarantee prices to world cotton prices to minimize overproduction at times of low world prices. To smooth out the effect of price fluctuations on annual production decisions, it may be useful to use a moving average of the three to five years of past world prices for each type and quality of cotton comparable to that of Egypt. Seed cotton guarantee prices should be announced before the planting time of wheat (November) rather than before the planting time of cotton (March).

As for lint cotton exports, it may be desirable to use more competitive and flexible pricing, relying mostly on international bidders for Egyptian cotton. Along the same lines, fobbing and marketing margins should be left to exporters rather than set administratively.

### *Cotton Trading*

To ensure the efficient functioning of markets at home, it would be advisable to make the rings allocation criteria explicit. It is also important to announce the deficiency payments well in advance. Finally, gradual privatization of the public sector cotton trading companies could be considered.

This *Policy Viewpoint* was written for ECES by Omneia Helmy (Cairo University) and revised by Ahmed Galal (ECES).

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