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Reforming the Egyptian Cotton Sector

- Competition and Coordination

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Abstract

The cotton industry is facing new competition due to changing comparative advantages on the world market. Egypt is one of the countries in which we have seen a reform in order to make the cotton sector more efficient and competitive. To be able to reach that goal, it is of great importance that the liberalization involves a good balance between competition and coordination. The purpose of this thesis is to investigate how the structure of the Egyptian cotton sector has changed and what affect the reform has had on competition and coordination. Throughout the study it has been evident that the institutional structure in the Egyptian cotton industry has changed appreciably and that many more players are active on the market. Competition has increased, the vertical integration has decreased and private actors now have a role in coordinating the sector. However, there are still improvements to be made.

Keywords: Egypt, cotton, reform, competition, coordination

Table of Contents

- List of Figures and Tables.....4**
- Abbreviations.....5**
- 1 Introduction6**
 - 1.1 Purpose.....7
 - 1.2 Method and sources.....7
 - 1.3 Outline of the paper.....7
- 2 The Cotton Industry9**
 - 2.1 The global cotton industry and new challenges9
 - 2.2 Concepts and definitions10
 - 2.3 The Egyptian cotton sector11
- 3 Competition and Coordination.....13**
 - 3.1 Coordination13
 - 3.2 Competition and coordination15
- 4 Reform of the Egyptian Cotton Sector.....17**
 - 4.1 Market structure in the Egyptian cotton sector17
 - 4.1.1 Input market and distribution of seed cotton 18
 - 4.1.2 Ginning and other buying companies 21
 - 4.1.3 International trade..... 24
 - 4.1.4 The spinning industry 25
 - 4.1.5 A new structure 27
 - 4.2 Performance of the cotton sector28
 - 4.2.1 Pricing and returns to producers..... 28
 - 4.2.2 Production..... 31
 - 4.2.3 Quality 32
- 5 Evaluation of the Reform34**
 - 5.1 Increased competition and less vertical integration35
 - 5.2 Coordination37
- 6 Conclusions40**
- Sources42**
- Appendix.....46**

List of Figures and Tables

Figure 1: Production chain – Cotton	10
Figure 2: Approximate institutional structure of the cotton sector in Egypt before liberalization.....	18
Figure 3: Egypt’s Export and Import of Lint in metric tons, 1991-2004	25
Figure 4: Egyptian Production, Consumption and Export of Lint, 1990/91 to 2003/04.....	26
Figure 5: Approximate institutional structure of the cotton sector in Egypt after liberalization, as of 2001.....	27
Figure 6: Seed Cotton and Lint Cotton Prices, 1994-2001. USD/kg	29
Figure 7: Egypt’s production of Seed Cotton & Lint Cotton, 1991-2001.....	31
Figure 8: Yield for Seed cotton and Lint cotton from 1990 to 2000.....	32
Table 1: Different Types of Coordination	13
Table 2: Percentage of farmers who feel they have the freedom of choice to decide from where to buy inputs in 2001 (By crop grown).....	19
Table 3: Best sources of input in cotton seed production - Farmers’ view in, 2000/01 (%).....	19
Table 4: Number of firms or Individuals Buying at PBDAC Sales Rings, 1994-2001.....	22
Table 5: Ginning companies in Egypt as of 2002	23
Table 6: Average Official prices of Seed cotton and Export price of Egyptian Lint, 1997 through 2001 (USD/kg)	28
Table 7: Farmers share of the final export price in percent, 1994-2001.....	30
Table A.1: Egyptian Export and Import (mt) of Lint cotton, 1991-2004	46
Table A.2: Egyptian Production, Consumption and Exports of Lint cotton in metric tons, 1991-2004	46
Table A.3: Egyptian Production (mt) of Seed Cotton and Lint Cotton, 1991-1995	47
Table A.4: Seed Cotton Yield and Lint Cotton Yield in Kg per Hectare, 1990-2000	47

Abbreviations

ALCOTEXA	Alexandria Cotton Exporters' Association
APCP	Agricultural Production and Credit Project
APRP	Agricultural Policy Reform Program
CATGO	Cotton Arbitration, Testing and Grading Organization
ELS	Extra-long staple
FAO	Food and Agriculture Organization of the United Nations
GOE	Government of Egypt
HC	Holding Company
HRW	Human Rights Watch
HSU	Horticultural Services Unit
ICAC	The International Cotton Advisory Committee
kg	kilogram
LE	Egyptian Pounds
lk	lint metric kantar = 50 kg
LS	Long staple
MLS	Medium-Long staple
MT	Metric tons
MVE	Monitoring, Verification and Evaluation Unit of APRP
PBDAC	Principal Bank for Development and Agricultural Credit
sk	seed metric kantar = 157,6 kg
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development
USD	US Dollars
WB	World Bank
WTO	World Trade Organisation

1 Introduction

Production of cotton is found in a large number of countries all over the world, but two thirds of the production is carried through in developing countries. Cotton play an important part of the economies in many of these less developed nations, particularly in some African countries were it is contributing with up to ten percent of GDP. A pressing issue on the world trading agenda today is the question of agricultural subsidies given by countries in order to boost their own domestic production. Subsidies of this kind are a fact even within the cotton industry and can involve serious consequences for the third world countries. Another fact that has changed the conditions on the market for cotton is the competition coming from man-made fibres. The use of man-made fibres is not a new phenomenon, research was made within the field in the late 1800s, but the large-scale production did not take off until after the Second World War. Man-made fibres today account for fifty-seven percent of the world's total fibre consumption to be compared with twenty-seven percent in 1960.¹ A third burning topic related to the cotton industry is the intensified competition in the textile industry due to the end of textile import quotas.

The new conditions mentioned above have forced the cotton industry to undertake packages of measures and by those means make the industry more efficient. In many countries this has been about reforming the sector through liberalization, which also is the case in Egypt.

Egypt is one of the main cotton producing countries on the global scene. Even though the Egyptian cotton industry has lost ground lately it still produces over one-third of the total world market for long staple and extra-long staple cotton.²

¹ Baffes (2005), p.259-271

² HRW

1.1 Purpose

The purpose of this paper is to examine the structure of the cotton industry in Egypt and to investigate how the Egyptian cotton sector has been affected by the domestic reform of cotton policies. The effects that are of highest interest for this thesis are those regarding competition and coordination within the country.

1.2 Method and sources

The paper is more of empirical character. In order to evaluate the situation of competition and coordination in Egypt's cotton sector we are taking a closer look at relevant data. Statistics regarding production, trade and market structure from the period before the reform is compared to the situation after the reform.

Some of the sources and statistics produced within Egypt are made in Arabic, which has made it difficult to use that information in the work with this thesis. It is possible that knowledge in Arabic would have given a wider insight in the subject but this is not considered a problem and neither is it seen as a hinder to reach the expected outcome of the paper.

Many of the articles used as sources in this thesis are edited by Abt Associates, which has published most of the recent articles regarding the agricultural reform in Egypt. A simple explanation to this is that Abt Associates is the body responsible for monitoring, verifying and evaluating the policy reform actions taken by the Government of Egypt (GOE) regarding the APRP. The project in which this work is made is called *The Monitoring, Verification and Evaluating Unit (MVE) of USAID's Agricultural Policy Reform Project (APRP)*.³ Since the evaluating project ended in 2002 a lot of the information and data comes from year 2001. In some places more up-to-date statistics is used.

1.3 Outline of the paper

The paper is organized in six chapters. After this chapter follows a short introduction to the Egyptian cotton industry. Chapter two also describes the situation on the global market for cotton and the new conditions concerning textile trade quotas. Chapter three presents the

³ Abt Associates

theoretical framework and explains the concepts of competition and coordination. The characteristics of the Egyptian cotton reform and the change in structure are presented in the fourth chapter. Chapter five evaluates the reform and investigates how competition and coordination in the Egyptian cotton industry have been affected by the liberalization. The paper is brought to an end with some concluding observations in chapter six.

2 The Cotton Industry

2.1 The global cotton industry and new challenges

The four largest producers of cotton account for about two thirds of the world's total output. These countries are China, the USA, India and Pakistan and together with Egypt and Uzbekistan they represent three fourth of the cotton output on the global scene.⁴

The global cotton output is still increasing, from 10.2 million tons in 1960 to 20 million tons in 2001, and this despite the hard competition from man-made fibres. The bigger increase comes from Asia, with China, India and Pakistan in the lead. Even Greece, Spain and Turkey contributed to this increase.⁵

In 2001, ICAC presented a report based on a questionnaire of twenty-eight cotton-producing countries. This report showed that the cotton production with the lowest costs is found in West Africa while the most expensive production takes place in the USA, Syria and Israel. The European producers Greece and Spain did not participate in the report, however there is no doubt that these producers represent the most expensive cotton production in the world.⁶

About one third of the cotton produced is traded internationally, while the rest is used in domestic textile production. Three of the biggest producers do not export at all and sporadically they even import in order to supply their domestic textile production. These countries are: India, China and Pakistan.⁷ The biggest cotton exporters are the USA, Uzbekistan and West and Central Africa, together they represent for 60 percent of the total exports. However, the trend at the moment is such that the trade in cotton is diminishing. The reason for this decline is the subsidies that are given to domestic production in large countries. These measures are encouraging domestic production at the expense of imports.⁸

⁴ UNCTAD b

⁵ Baffes (2005), p. 259

⁶ ICAC (2001)

⁷ Baffes (2005), p. 259

⁸ Bourdet (2004), pp. 11-13

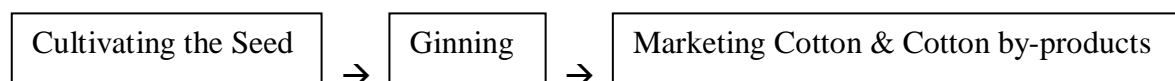
The global trade patterns can come to change during 2005 due to new challenges on the market for cotton and textiles. On December 31, 2004, the WTO's Agreement on Textiles and Clothing was brought to an end. The result of this termination is that from January 1, 2005, the textile industry will not longer be an object of exceptions of the normal WTO/GATT rules respecting quotas. The textile industry is from this year and on governed by the common rules that are a part of the global trading system. The change in regulations has meant that the world has taken one step closer to the main objection with the founding of WTO in 1995, namely to one day have free trade with goods of all kinds.⁹

Despite these new regulations, in June 2005 the EU took the decision to reimpose the quotas for some of the Chinese-made clothes, quotas that will be maintained until 2008. Also the USA has decided to keep quotas for China and this has created a situation, which other Asian cotton producers will benefit from.¹⁰ The biggest winners of the change in quota regulations are expected to be China, India and Pakistan while less competitive nations will lose their guaranteed markets.¹¹

2.2 Concepts and definitions

The process for producing cotton and textiles consists of several different steps. The production chain for cotton, which also is the commencement of the production chain for textile, looks like follows:

Figure 1: Production chain – Cotton



The seed cotton is the unginning, picked cotton. The cotton is either picked by hand or mechanically and is then transported to the gin. Ginning is the part of the process in which the cotton fibres are separated from the seedpods and the sometimes-sticky seeds. The word “gin” comes from *engine* and means “device”.¹² The ginned cotton is called lint and is stored

⁹ WTO

¹⁰ Asia: A Stitch in Time; Asian textiles (Sept 2005)

¹¹ Hiebert (July 2003)

¹² UNCTAD c

compacted in bales. The lint is either exported abroad or transported to the domestic spinning industry where it is made into thread.¹³ This paper will focus on the seed cotton production and the ginning, which is the actual manufacturing of cotton. The thesis will not attempt to enter deeply into the textile industry. However, some attention will be paid to the spinning sector, this to present a wider picture of the situation.

2.3 The Egyptian cotton sector

Egypt has a long history as a cotton producing country. Still today the cotton and textile industry plays the most important role in Egyptian agriculture in terms of employment, revenues from exports and the value of output. The industry employs around one million farm-workers and ca 175.000 workers in the ginning industry.¹⁴ “Egyptian cotton” has become a concept on the world market and is referring to cotton of high quality. Cotton is classified in accordance with the length of the fibres, the longer fibres the better quality. Cotton with less quality, short fibres, is produced in for example India and China while the long-fibred cotton is produced in Egypt, Sudan and in many Latin-American countries. Thanks to the moderate climate all year long, Egypt is a suitable place to grow cotton, which also is a reason for the high quality.¹⁵

There are different varieties of Egyptian cotton and those are classified in accordance with quality. Egypt is a large producer of long staple (LS) and extra-long staple (ELS) categories. The ELS cotton produced in Egypt is Giza 45, 70, 76, 77, 87 and 88. The LS cotton goes under the varieties, Giza 80, 83, 85, 86, 89 and 90. The two cheapest varieties are Giza 80 and 83. There is also a third classification, which is medium-long staple (MLS). One of the varieties that compete with the Egyptian cotton on the market for high quality cotton is American Pima.¹⁶

In recent history Egypt has grown quite a few of the different varieties of cotton. During the 90’s the most common number of varieties was eight to ten. Experts on the area have

¹³ UNCTAD a

¹⁴ Holtzman and Mostafa (July 2002), p. viii

¹⁵ Westberg (1993) p. 1

¹⁶ CATGO

proposed that six varieties is the optimal number and should be divided into two ELS varieties, two LS varieties and two MLS varieties.¹⁷

As mentioned earlier cotton production plays a decisive role in many African countries, especially in West Africa. However in Africa, Egypt stands out in terms of production level and productivity and the Egyptian output is remarkable higher than the output in other African countries. During the time period 1961 to 2002 Egypt produced about 1.1 millions tonnes of cotton, which accounted for about one third of the total output in the African cotton industry. The average yield during the same time period as above was 2230 kg per hectare in Egypt, to be compared with approximately 890 kg per hectare for the West African countries. The reason for this huge difference in performance is based on the different techniques used in the production. In Egypt cotton is grown under irrigation, which is a line of action that not very often is seen in the West African countries. Irrigated cotton farming is, not surprisingly, more expensive than dry land cotton farming and is associated with higher quality lint and greater yield potential.¹⁸

¹⁷ Krenz et al. (July 2001), p. 13

¹⁸ UNCTAD a

3 Competition and Coordination

Two important concepts, connected to the process of liberalization and privatization, are competition and coordination. This chapter will explain these concepts and try to see what importance they play in a reform like the one we have seen in the agricultural sector in Egypt. The chapter will also investigate if it's possible to reach both competition and coordination at the same time or if one of them excludes the possibility to have the other.

3.1 Coordination

There are different types of coordination, which all can take place on a vertical or a horizontal level. Table 1 shows the different types of coordination that can be found in a liberalized market system. Formal coordination is best used in order to coordinate a sector in which the number of firms is high while relational coordination is more a line of action when few companies are engaged in the market. The actions taken by the state are impersonal while measures taken by private actors could be either impersonal or relational.¹⁹

Table 1: Different Types of Coordination

	Impersonal	Relational
State	Rules and Regulations (formal "institutions")	N/a
Private actors	Formal collective organisation (e.g., industry association) with decision-making powers	Major players take decisions informally amongst themselves

Source: Poulton et al. (2004), p. 522

In a neoclassical world of perfect competition the only coordination needed on vertical level is the interaction between demand and supply. The horizontal coordination that takes place in this market system appears through a set of institutions making information available and

¹⁹ Poulton et al. (2004), p. 521

defining the boundaries in which the competition can take place. The latter belongs to the group of impersonal coordination mechanisms.²⁰

One form of coordination is the provision of public goods, most often managed by the state, which in the case of cotton has to do with for example research and quality grading. Two challenges connected to coordination by these means are to agree upon what should be done and how it should be done, including how to get rid of the free-rider problem. For different reasons the state might not fulfil its responsibility of formal coordination and leave the private players to coordinate themselves. If the latter is the case the private actors can form a unit that replaces the role of the state regarding creation of formal norms and regulations. The third possibility is for the private firms to coordinate through relational mechanisms, such as informal agreements.²¹

In informal agreements there is a possibility for small firms to be neglected and that the big actors take too much space leaving the small ones out. This is one risk. Another risk has to do with that coordination in form of regular meetings between firms takes away some of the uncertainty of doing business. Since they are sharing a lot of the same information it is very likely that they also will make the same decisions. This may lead to illegal price collusion since one idea of relational coordination is to reduce rivalry between competitors.²²

The whole idea of liberalization is to transfer activities from the state to the private sector. If the private sector should be able to complete their undertaking the state must give them the space and capacity to do so. It happens that government mistrust the private sector and their ability to carry out their duties.²³

Williamson is one of the leading economists in the field for industrial organization and he talks about contracts and vertical integration instead of market mechanism. Vertical integration is a form of coordination and refers to the system of one single actor controlling all or several steps in the production chain. Vertical integration could arise by means of making the production stages more efficient and reduce overall industry costs. The integration can either be backward or forward, backward integration has historically been the most

²⁰ Poulton et al. (2004), p. 521

²¹ Ibid, p. 522

²² Wellner (2005), pp.33

²³ Brinkerhoff et al. (June 2002), p. 28

common form of vertical integration and means increased control of the maintenance of inputs to the company. Williamson brings up the question why not all firms are integrating since an integrated production can always replicate actions made by single actors and can sometimes improve on them.²⁴ The transaction costs are often used as one factor to explain why hierarchies are used in some cases and markets are used in other. To this comes the fact that if there are no costs for operating a competitive market, something that often is assumed in economic models, there is less reason for coordinating through vertical integration.²⁵

3.2 Competition and coordination

Competition within a sector is determined by certain factors. One traditional indicator of competition is price. Other factors playing an important role are product related factors such as quality and number of varieties but also factors like the business' geographic location and service offered.²⁶ One idea is that liberalization and deregulation automatically promote private competition but a study made by Nylandsted Larsen (2002) is one that shows that competition does not emerge spontaneously when liberalizing a market.²⁷

As mentioned in 3.1, impersonal coordination is useful when concentration of competitors is high. If such coordination is successful it could intensify the competition. However this kind of coordination can easily be ineffective and because of this, sectors with a large number of companies is often characterized by high competition and weak coordination.²⁸

The coordination on markets with a low number of players is likely to be characterized by a so-called relational coordination. Exactly how this coordination looks can to a great extent determine how the competition appears to develop. If the coordination consists of regular meetings between the companies this could easily lead to information sharing and could if bad pave the way for illegal collusions and cartels. The latter obviously counteract competition and once again we face the trade-off between the two concepts. The most successful system is in which there is a good balance between competition and coordination.²⁹

²⁴ Williamson (2002), p. 179

²⁵ Williamson (1987), p. 24

²⁶ Poulton et al. (2004), p. 523

²⁷ Nylandsted Larsen, M. (2002), p. 186

²⁸ Poulton et al. (2004), p. 521

²⁹ Ibid

Vertical integration can work against competition. One anticompetitive consequence of vertical integration is that it facilitates the origin of price discrimination and another problem is that it creates entry barriers.³⁰ To break the relation between two stages in the production chain, for example between farmers and ginning firms, is therefore one important feature of a liberalizing reform. However vertical integration through contracts also have positive effects upon the cotton industry. It is believed that without vertical agreements the cotton sector would not have gone through such rapid growth as we have seen in history. Farmers are often risk averts and the security involved in the contractual agreement can be seen as a major positive thing for them. A second reason defending the existence of vertical integration is related to the discussion about provision of public goods in chapter 3.1. Integration is often the best way to support research and development, something that is necessary to reach an efficient sector regarding productivity and quality.³¹

In the model of perfect competition the assumption of homogenous commodities is made. However the same competitive market situation can be reached if assuming that perfectly working institutions are setting standards and grading the different goods. Theoretically, a perfect competitive market is also a market with perfect coordination. If this would be the case it would mean that there is no trade-off between the two concepts. Could that really be the case in reality? It seems like it is more likely to believe that in reality we experience a certain trade-off between competition and coordination.³²

³⁰ Williamson (1987), p. 33

³¹ Bourdet (2004), pp. 42

³² Poulton et al. (2004), p. 521

4 Reform of the Egyptian Cotton Sector

A substantial agricultural reform program took place in Egypt in the beginning of the 1980s. With help from USAID two implementation programs were designed; the Agricultural Production and Credit Project (APCP, 1987-1995) and the Agricultural Policy Reform Program (APRP, 1996-2002). The programs aimed to develop and reform the agricultural sector in Egypt and both devoted major resources to the cotton sub sector. APCP involved several policies and measures, which had remarkable impact on the cotton sector. Crop area controls were removed and farmers were offered a higher percentage of the cotton export price. In the late 1980s the concept of privatization was introduced and a transition period for the privatization begun with organizing the public sector into so called holding companies (HC).³³

The real liberalization of the cotton market took place in 1994/95 and 1995/96 and APRP begun in 1996/97. APRP is divided into different sub sectors, this since the different agricultural commodity subsystems have different characteristics. The GOE and USAID agreed on the different benchmarks as parts of APRP and the number of thrust made within the program is highest for the commodity cotton.³⁴ For the cotton sector, efforts were made to increase the competitiveness of Egyptian cotton on the export market, to liberalize the market and to privatize state owned ginning companies within the cotton industry. Other benchmarks of importance but not directed only towards the cotton market were those meant to intensify researching, export promotion and market information.³⁵

4.1 Market structure in the Egyptian cotton sector

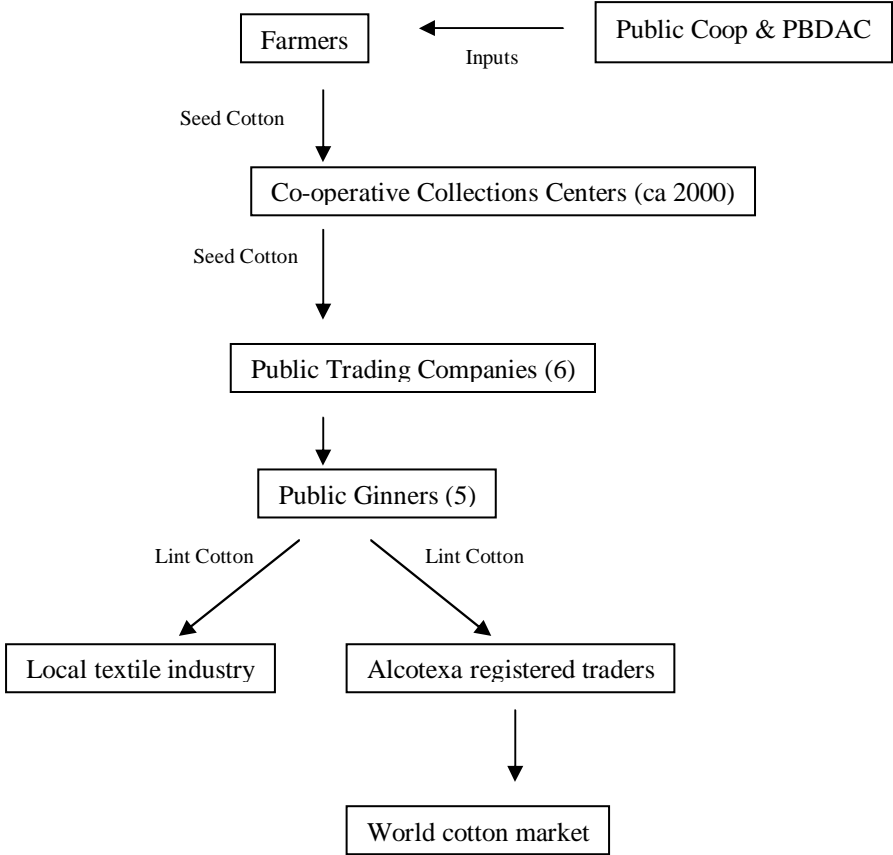
The liberalization has changed the structure of the different areas of the cotton sub sector. Figure 2 presents the institutional structure before the liberalization begun in 1994.

³³ Holtzman and Ender (July 2002), p. 17

³⁴ Ibid, p. 19

³⁵ Holtzman and Mostafa (July 2002), p. viii

Figure 2: Approximate institutional structure of the cotton sector in Egypt before liberalization



4.1.1 Input market and distribution of seed cotton

The Egyptian production of seed cotton is undoubtedly the product of small farms. In 1997 almost seventy percent of the farmers cultivated an area of less than one acre. In 2001 the number of farmers was estimated to 500,000 but the number changes from year to year due to farmers using a rotation system.³⁶

The cotton industry is particularly input demanding and one challenge with liberalizing is to maintain or create an efficient distribution of the inputs (seeds, fertilisers and pesticides) to the smallholder producers.³⁷ Before 1994 the PBDAC (Principal Bank for Development and Agricultural Credit) and the public cooperatives were the only distributors of inputs. The reform included liberalization of the input market as a part of the goal to achieve economic efficiency. In the year of 1994 the PBDAC was more or less out of the distribution of agricultural input. In 2001 the Cooperatives and private traders were the largest suppliers of

³⁶ Krenz et al. (1999), p. 13
³⁷ Poulton et al. (2004), p. 520

inputs but the GOE were still the ones to before every season specify certain varieties of cotton for each region to cultivate.³⁸

In 2001 a survey was made in which the farmers got a chance to express their opinion regarding the situation on the market for inputs. Some results of this survey are presented in Table 2 and Table 3.

Table 2: Percentage of farmers who feel they have the freedom of choice to decide from where to buy inputs, 2001. (By crop grown)

Farm Inputs	Cotton		Wheat		Maize		Rice	
	No	Yes	No	Yes	No	Yes	No	Yes
Seeds	73	27	0	100	0	100	1	99
Fertilizers	2	98	0	100	0	100	0	100
Pesticides	5	95	0	100	0	100	0	100

Source: Morsy Ali Fawzy et al. (July 2002), p. 23

Almost all farmers cultivating wheat, maize and rice in 2001 felt totally free to purchase their inputs from whomever they wanted to. The situation was more or less as good on the market for fertilizer and pesticides in the cotton sector but for the seeds the story was another. Only twenty-seven percent felt free to decide from where to buy the seeds.

Table 3: Best sources of input in cotton seed production - Farmers' view in 2000/01 in %.

<u>Supplier</u>	<u>Seeds</u>	<u>Fertilizers</u>	<u>Pesticides</u>
PBDAC	1,8	1,2	0,9
Cooperatives	83,4	52,2	67,5
Private Traders	4,5	33,4	21,9
Own	0,3	-	-
Central Agent	1,2	-	-
Others	8,8	13,2	9,7
Total	100	100	100

Source of Data: APRP/MVE Endline Producer Survey, November 2001, presented in Morsy Ali Fawzy et al. (July 2002), p.23

³⁸ Holtzman and Ender (July 2002), p. 18

Farmers were asked which source of inputs they found to be the best one and the results are presented in Table 3. The cooperatives turned out to be the best source of seeds while the private traders together with the cooperatives were thought on as the best distributors of fertilizers and pesticides.

The reform has also meant that the farmers now have the opportunity to sell to whomever they prefer to sell to. According to a survey made in 1997, two percent of the farmers considered themselves free to market their own products. A similar survey made in 2001 showed that the number had increased and that some forty percent considered themselves free in deciding about marketing the cotton seed. Despite this, in 2001, about fifty percent of the cotton was sold to the PBDAC rings. To keep having a majority of the cotton delivered to the PBDAC rings is a way for the PBDAC to coordinate the cotton sector and to have control over the quality.³⁹

The reasons to why so many actors kept selling to the PBDAC rings are several:

- A question of thrust; to receive correct weighing and to get paid the right price.
- The closeness to the PBDAC rings
- Many farmers have reported that the reason for selling to PBDAC was to repay loans. Officially the farmers do not have to sell via the PBDAC rings to repay loans. However the question, whether this was done voluntarily or under pressure from local PBDAC officials, remains.⁴⁰

Most seed cotton buyers apply a credit payment system and the policy is that farmers should be paid eighty percent of the estimated value when handing over the seed cotton. The remaining payment comes when the final appraisal of quality is made. According to an investigation made in the beginning of 2001, this has not been the case in reality. In fact it turned out that the farmers had to wait for their full payments on average twenty days when delivering to the PBDAC rings. It was even worse for the ones selling to HSU (Horticultural Services Unit), who had to wait on average forty-five days for full payment. The ones selling to the cooperatives did better in terms of receiving full payment; they only had to wait nine days and most of the farmers selling to private traders received their payment straight ahead.⁴¹

³⁹ Morsy Ali Fawzy et al. (July 2002), pp. 37-39

⁴⁰ Krenz et al. (July 2001), p. 26

⁴¹ Ibid, pp. 10

4.1.2 Ginning and other buying companies

Before the liberalization began in 1994/95 the seed cotton was collected from the growers and kept in around 2200 cooperative collection centres. These centres worked as agents for the GOE and the seed cotton was distributed from the collection centres by six public trading companies. During the first season after liberalization public ginning companies also started to buy seed cotton, however all the purchases were made through the cooperatives. In the following season, 1995/96, a system of sales rings was introduced and replaced the cooperative collection centers. The sales rings were under supervision of PBDAC. The new system met tough criticism from farmers and during the first season there was no success to talk about. However, the next season the ring system was improved, which for example involved faster grading and faster payment of the seed cotton. Only one buyer was/is connected to each PBDAC sales ring meaning that the buyer had/have to accept all the cotton handed to that particular ring, no matter the quality of the cotton.⁴² The sales rings are distributed to different traders and buyers. Only three private buying firms bought cotton through the PBDAC rings during 1997/98, occupying 55 of the 857 rings.⁴³

The level of competitiveness among cotton traders is looked upon as quite low. In 2001 forty-three percent of the responding traders believed that competition was low, while fifty-seven percent thought that competition was moderate. None of the respondents believed that competition among cotton traders was high.⁴⁴

Table 4 gives us a clearer picture of the development regarding the number of seed cotton buyers active in Egypt, from the year of liberalization up to 2001.

⁴² Krenz et al. (July 2001), p. 6

⁴³ Ibid, (July 2001), p. 7

⁴⁴ Morsy Ali Fawzy et al. (July 2002), p. 50

Table 4: Number of firms or Individuals Buying at PBDAC Sales Rings, 1994-2001

Market Season	Number of Public Firms	Number of Private Firms & Individuals	Total Number
1994-95	11	1	12
1996-97	11	0	11
1997-98	9	3	12
1998-99	9	8	17
1999-00	13	13	26
2000-01	17	45	62

Note: In 1994/95 the collection centres were managed by cooperatives. Sales during 1995/96 were minor and are therefore excluded from the table. Statistics from 1996/97 and on refers to sales at PBDAC rings.

Source: Krenz et al. (July 2001), p. 32

The first attempt to start the privatization process among the ginning companies was made through leasing public gins to private companies. This was first permitted in 1994/95 and that year, eighteen gins were leased. In later seasons this turned out to be just a temporary solution and not a permanent way to privatize.⁴⁵ The real privatization of the ginning industry started in 1996/97. The companies Arabia Ginning and Nile Ginning were the first and only to be privatized and were sold on the stock market. Ninety percent of the shares were bought by the private sector and the remaining ten were held by employee shareholder associations. Three other ginning companies, Delta Ginning, Misr Ginning and El-Wadi Ginning all stayed under public ownership. These three companies have all been up for sale but investors have not been interested. The latter probably has to do with the fact that the government of Egypt is not willing to sell the land on which the cotton gins stand on and instead they offer to lease the land to privatized companies. In some cases the land has been offered for sale but with a restriction that no activities other than cotton ginning can take place on the land. Interested investors are mostly exporters that want to control the access of cotton lint and to ensure quality. Other obstacles that prevent selling of the remaining state own ginning companies are excess capacity and disproportionate distribution of the companies' gins.⁴⁶

In 2001 it was announced that the three remaining public companies, Delta Ginning, Misr Ginning and El-Wadi Ginning would merge and form one company and at the same time

⁴⁵ Krenz et al. (July 2001), p. 70

⁴⁶ Maziad (2002), pp. 15

close some of the public gins.⁴⁷ In 2002/03 these companies were for sale under separate names, which give an indication on that the merger never was carried through.⁴⁸

Table 5: Ginning companies in Egypt as of 2002

Company	Public	Private
Arabia Ginning		X
Delta Cotton Ginning	X	
El Wady Cotton Ginning	X	
Misr Cotton Ginning	X	
Nile Ginning		X

The ginning companies' market shares in 2002 were very much the same as they were before the privatization. The reason for this stable market situation is probably not that the private companies are unable to compete with one another and challenge the public sector but an evidence of the stagnating cotton market. Except the poor market situation there are other factors that complicate the private companies' possibility to expand their market shares. An example of this is that the government in 2001/02 requested public trading companies not to deliver any cotton to the private companies. This affected both Arabia Ginning and Nile Ginning in a negative way and the market share of private ginners was reduced from 41.6% in 2000 to 33.2% in 2002.⁴⁹

As shown in Table 4 there were sixty-two traders buying cotton from PBDAC rings in 2001, seventeen public companies and forty-five private companies. The seventeen public companies consisted of six trading companies, three ginning companies, seven spinning companies and HSU, a part of MALR (Ministry of Agriculture and Land Reclamation). In 2000/01 the public entities in total received 601 rings, which was seventy-four percent of the total number of rings at that time. The private entities received 209 rings, which then was equal to twenty-six percent of the total. The forty-five private buyers consisted of fifteen trading companies, two private spinners and twenty-eight companies and individuals. To this it can be added ten private trading companies without any PBDAC rings.⁵⁰

⁴⁷ Krenz et al. (July 2001), p. 70

⁴⁸ The Egyptian Embassy

⁴⁹ Maziad (2002), p. 22

⁵⁰ Krenz (July 2001), p. 9

Since all traders and ginning companies reported the same charge for ginning in 2001, there was no competition in ginning regarding price. Instead the competition appeared through quality, service and the range of varieties provided.⁵¹

4.1.3 International trade

In 1994/95 the cotton market was liberalized in the sense that the private sector was permitted to buy seed cotton from farmers, to gin it and to sell the lint to textile holding companies. However it was still not fully liberalized since private companies were not allowed to export the lint outside the country.⁵²

Increased competitiveness of Egyptian cotton on the export market and export promotion were two of the general objectives of APRP.⁵³ Law no 210 was a part of reaching this goal and came into force during the liberalization. The law made it possible for any public or private firm to participate in trade with seed cotton and to become a member of Alcotexa and thereby become an exporter of cotton lint.⁵⁴

Alcotexa was founded in 1932 and is an association for actors trading Egyptian cotton. Non-members of the association are not allowed to engage in export activities of Egyptian cotton. Up to 1998 Alcotexa was totally dominated by companies from the public sector but since January 2001 private trading companies are the ones dominating the association. Alcotexa's Management Committee nowadays constitute of one representative from the public sector and three representatives from the private sector. In 2001/02 the private exporters accounted for 70% of the export market. Thus Alcotexa has changed from being an organization indirectly led by the Ministry of Trade and Supply to being controlled by private cotton exporters.⁵⁵ In the beginning of 2005 the organisation had 36 members, i.e. 36 companies in Egypt are involved in exporting cotton.⁵⁶ The take over of private companies is slowly changing the association but Alcotexa still has a system of minimum export prices and exportable grades. This has been heavily criticized with argument that all grades hold good quality and are therefore exportable.⁵⁷

⁵¹ Ibid, p.71

⁵² Holtzman and Ender (July 2002), p. 18

⁵³ Krenz (July 2001), p. 39

⁵⁴ Holtzman and Mostafa (July 2002), p. 2

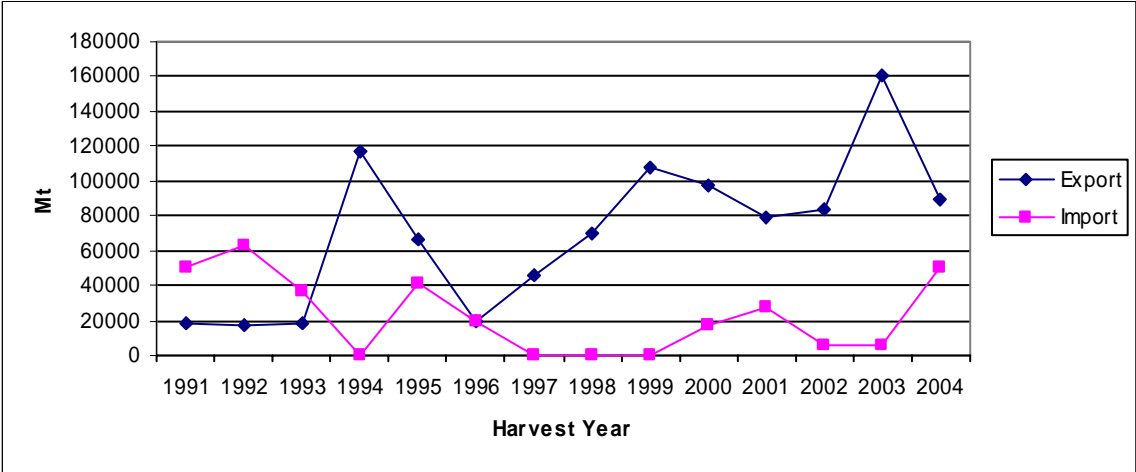
⁵⁵ Brinkerhoff et al. (June 2002), p. 27

⁵⁶ Alcotexa

⁵⁷ Holtzman and Mostafa (July 2002), p. xii

Figure 3 shows the change in exports and imports between 1991 and 2004. From this diagram we can see that export increased dramatically at the time for liberalization, but returned to its lower level two years later. In 1996 export increased once again and continued more or less upwards until 2003.

Figure 3: Egypt’s Export and Import of Lint in metric tons, 1991-2004



Note: The actual numbers behind this figure is presented in Table A.1, in appendix.

Source of data: Documents of the ICAC, (June 2005)

The majority of Egyptian exports go to the USA and the EU and this is particularly the case within the cotton sector. In the late 1990s, thirty per cent of the cotton was exported to the EU.⁵⁸

In the beginning of the 1990s import was actually higher than export, but since then import has been negligible. Before APRP some import were made from America but since the new liberalization program lint cotton has only been imported from nearby countries, such as, Sudan, Greece and Syria.

4.1.4 The spinning industry

The privatization of the spinning industry started in 1994 with the sale of the company UNIRAB.⁵⁹ Two other spinning companies that have been privatized are Alexandria Spinning

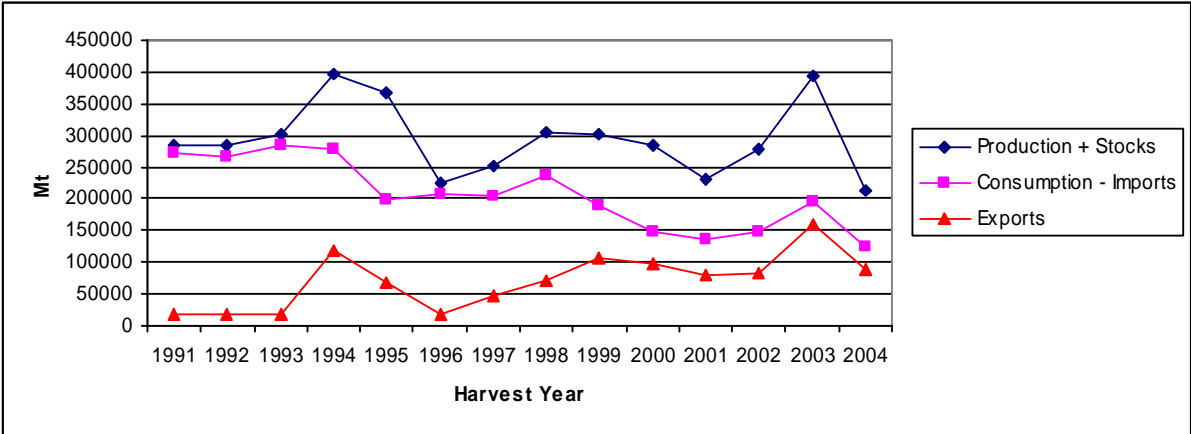
⁵⁸ World Bank Document (2001), p. 6
⁵⁹ Maziad (2002), p. 27

& Weaving and KABO.⁶⁰ However, the privatization process has never been completed, just as in the case of the ginning companies.

The spinning industry has during the liberalization process started to purchase seed cotton instead of only lint cotton as they earlier have done. On one hand this can be seen as something positive as the market allows whoever to buy seed cotton, but on the other hand it could be seen as an evidence for failure on the seed cotton a market. A perfect liberalized market should be able to handle the distribution and sale of seed cotton. The fact that spinners now obtain their own sales rings shows on an uncertainty on the market and an insecurity towards the market’s possibility to supply them.⁶¹

Figure 4 gives us a picture of how much of the production that goes into the domestic spinning industry and how much that goes on export.

Figure 4: Egyptian Production, Consumption and Export of Lint, 1990/91 to 2003/04



Note: The actual numbers behind this figure is presented in Table A.2, in appendix.

Source of Data: Documents of the ICAC, (June 2005)

Before the liberalization almost all the cotton production went into the domestic textile industry. This changed in 1994 and in the beginning of the 21st century the production is divided almost fifty-fifty between the exports and domestic consumption.

The Egyptian cotton is expensive for the domestic spinners to use. In some cases price discrimination has been used as a measure, meaning lower price on lint cotton for domestic

⁶⁰ Holtzman and Mostafa (July 2002), p. 14

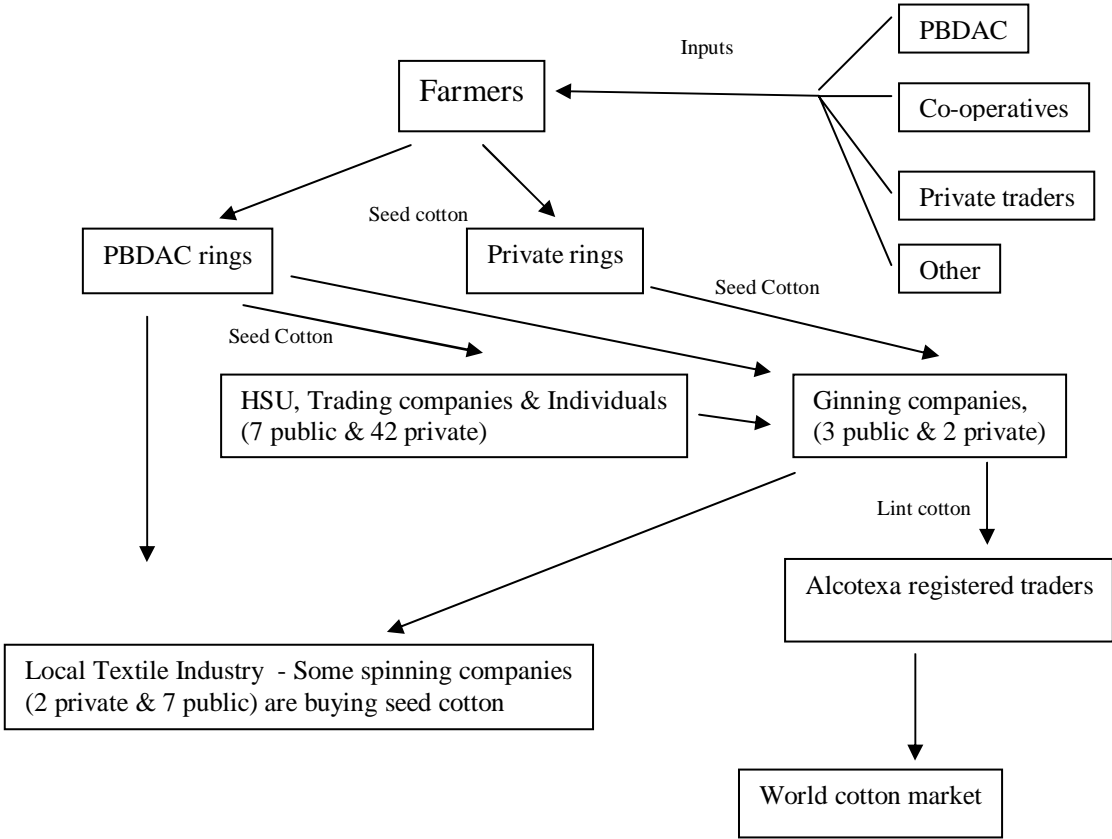
⁶¹ Krenz and Mostafa (May 2000), p. 74

spinners compared to the price offered to export firms. Another way to protect the domestic spinning industry has been through imports.⁶² But as Figure 3 shows, import has decreased during the last ten years, however we can notice a tendency of increased imports since 2003.

4.1.5 A new structure

In the beginning of chapter 4, Figure 2 shows the institutional structure before the reform. Figure 5 on next page gives us a picture of how the structure looked about seven years after the implementation of the reform.

Figure 5: Approximate institutional structure of the cotton sector in Egypt after liberalization, as of 2001



As we can see, the structure after the reform is far more complex than the institutional structure that we found before the cotton sector was liberalized. The biggest obvious change is that there now are private actors within the sector, not only public players as before. The number of actors has increased remarkable, especially regarding input suppliers and traders. The sector has not experienced any increase in number of ginning companies, but two out of

⁶² Krenz et al. (July 2001), p. 84

the five companies are now under private management. One part of the sector in which we cannot discern any difference when looking at this figure is the export of Egyptian cotton to the world market. Alcotexa still exists and all parts that want to participate in trade must still be a member of the association.

The structure presented in Figure 5 is very much the same today in 2005. However, the numbers of actors presented apply for year 2001.

4.2 Performance of the cotton sector

In this sub chapter we will take a look at how the Egyptian cotton sector has performed under the reform. Looking at the factors, price, production and quality will give us better knowledge of this.

4.2.1 Pricing and returns to producers

Control of cotton price setting was abolished during APCP and during APRP the GOE started with floor pricing in order to protect the farmers' income.⁶³ The minimum seed cotton price, paid to the producers, is determined by the GOE and is related to the lint export price. Quality, variety and the ginning out-turn are factors influencing the pricing. The lint export price is converted from US dollars to Egyptian Pounds (LE). The historical exchange rate has been LE 3,47/USD. This has changed over time and in January 2001 the rate was: LE 3,85/USD.⁶⁴ The latter is used for calculating the seed cotton prices that follows.

Table 6: Average Official prices of Seed cotton and Export price of Egyptian Lint, 1994 through 2001. (USD/kg)

	1994	1995	1996	1997	1998	1999	2000	2001	Mean
Seed (ELS)	0,59	0,66	0,95	0,99	0,99	0,8	0,97	0,75	0,84
Seed (LS)	0,45	0,53	0,74	0,77	0,77	0,54	0,55	0,64	0,62
Lint (ELS)	2,33	2,37	4,28	3,43	3,31	3	2,46	2,52	2,96
Lint (LS)	1,78	1,95	-	2,33	2,13	2,03	1,93	2,22	2,05
US Pima	2,27	2,86	3,74	2,58	2,47	2,64	2,07	2,53	2,65

⁶³ Morsy Ali Fawzy et al. (July 2002), p. 34

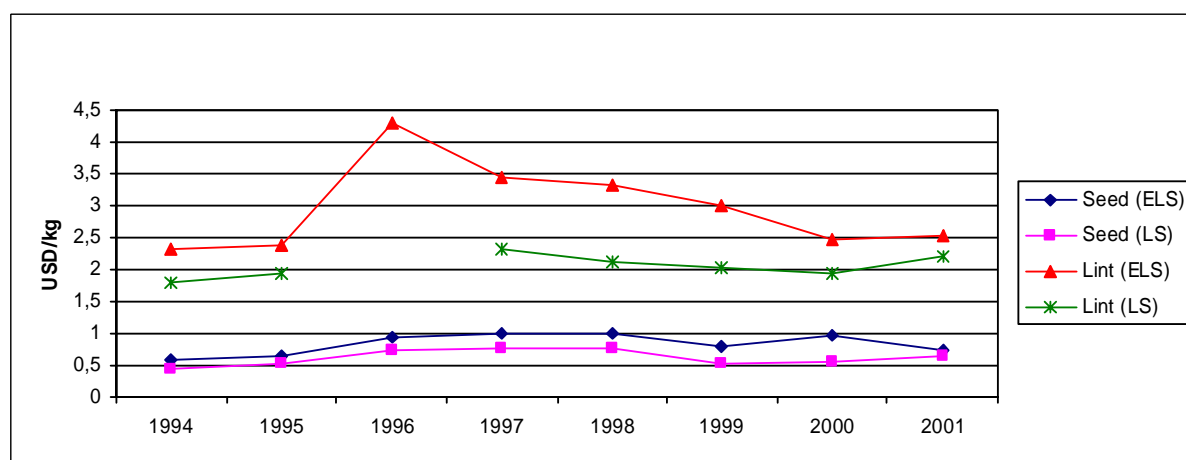
⁶⁴ Krenz et al. (July 2001), pp. 3-10

Note: The prices are calculated as an average of the prices for all different cotton varieties, produced in Egypt that year. ELS include Giza 45, 70, 76, 77 and 88. LS include Giza 80, 83, 85, 86 and 89. Since the varieties grown can change from year to year this can also have an effect on the average price. In 1996 no long-staple cotton was exported

Source of data: Krenz et al. (July 2001), p. 3-5

The same data as in Table 6 is presented in Figure 6 to give a better picture of the price change.

Figure 6: Seed Cotton and Lint Cotton Prices, 1994-2001. USD/kg



Note: No LS lint was exported in 1996 and this is represented by the gap between 1995 and 1997. About a third of the seed cotton is turned into cotton lint. This should be kept in mind when comparing the prices of the cotton in different stages of the production chain.⁶⁵

Source of data: Krenz et al. (July 2001), p. 3-5

The price in 1996/97 was set high above the equivalent world market price. Seed cotton price in Egypt this year exceeded the world market price for lint. The private companies refused to trade cotton to that unreasonable high price and most of them were forced to leave the market as explained earlier in this chapter.

One interesting measurement telling us about the situation for the farmers is their share of the final export price. Calculating with figures in Table 6 gives us the results presented in Table 7. We can see that the farmers' share of the final price has increased since 1994, both for long-stapled and extra long-stapled cotton.

⁶⁵ Krenz et al. (July 2001), p. 5

Table 7: Farmers share of the final export price in percent, 1994-2001

	1994	1995	1996	1997	1998	1999	2000	2001	Mean
Share to farmers, ELS	25,3	27,8	22,2	28,9	30	26,7	39,4	29,7	28,4
Share to farmers, LS	25,3	27,2	-	33	36,2	26,6	28,5	28,9	30,2

Source of data: Krenz et al. (July 2001), p. 3-5

The prices shown in Table 6 are floor prices, i.e. minimum prices that have to be paid to the farmers. It is therefore possible for ginners to pay a higher price to the producers, something that would be the case if the competition were high. A survey done in 2001 shows that at the most rings there are no scope for bargaining about the seed cotton price. When selling to private traders it was on the other hand some scope for negotiating the price.⁶⁶

There is an official fixed ginning rate in Egypt, as mentioned in 4.1.2. The Egyptian government sets this rate, which has been LE 18,5/lk since 1998/99 (= 0,1 USD/kg). Because of this fixed rate the companies on the market cannot compete with price and instead they have to focus on other factors in order to win market shares, such factors are service and quality. The latter especially accounts for the private companies since the companies within the public sector often have an advantage in form of transportation rebates of LE 2-7/lk.⁶⁷

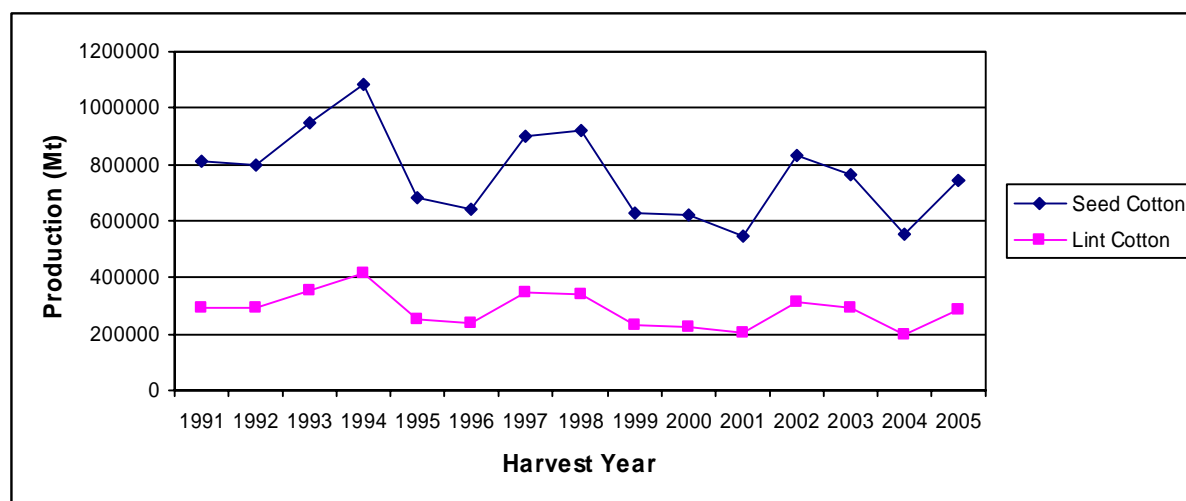
⁶⁶ Morsy Ali Fawzy et al. (July 2002), p. 40

⁶⁷ Maziad (2002), p.22

4.2.2 Production

Production is one of the factors to look at when measuring the performance at a market. In Figure 7 the production of seed and lint is presented.

Figure 7: Egypt's production of Seed Cotton & Lint Cotton, 1991-2001



Note: The actual numbers behind this figure is presented in table A.3, in appendix.

Sources of data: The numbers for Seed Cotton are computed from statistics in FAOSTAT and the numbers for Lint Cotton comes from Documents of the ICAC, (June 2005).

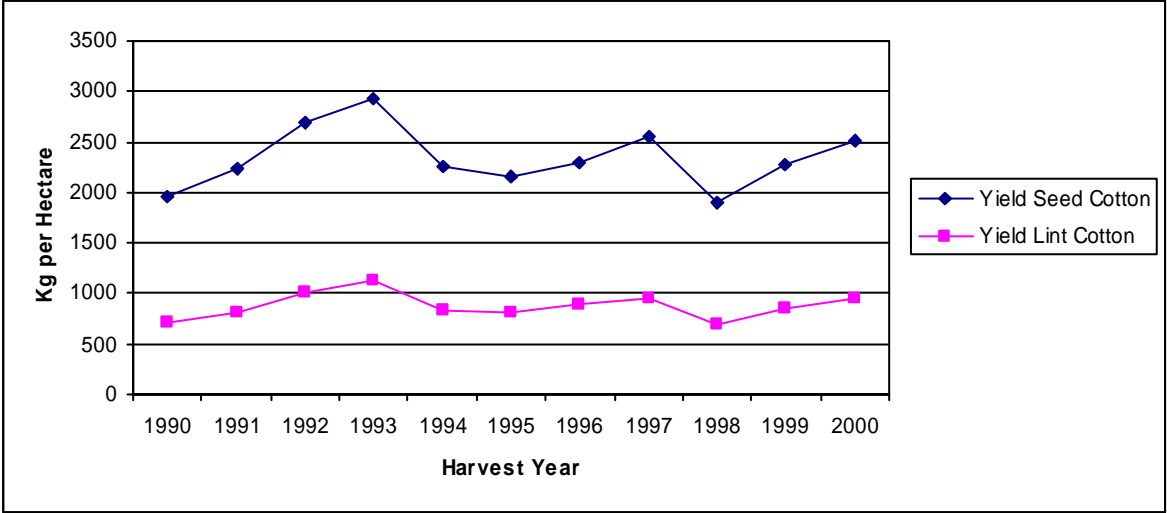
The production was at a relative high level at the first year of liberalization in 1994. Directly after liberalization began, Egypt experienced a deep fall in production. Three years later the production recovered to fall again in 1999. A quite clear pattern of ups and downs can be discerned from the diagram and the average production between 1991 and 2005 is almost the same as the production in 1991.

The Egyptian production of other crops such as wheat, maize and rice was before the reform not very market oriented. The goods were produced for autoconsumption and all the harvest was not sold. Thanks to the reform these crops are now produced after demand. In the cotton sector the situation was different and the percentage sold out of the produced amount was ninety-seven percent before the reform, giving not much space for improvement.⁶⁸

⁶⁸ Morsy Ali Fawzy et al. (July 2002), p. 36

The yield is another factor that tells something about the performance. Figure 8 presents how the yield has developed through the years. The yield went down just before liberalization and has had a positive trend since then, with exception for the year of 1998.

Figure 8: Yield for Seed cotton and Lint cotton from 1990 to 2000.



Note: The actual numbers behind this figure is presented in Table A.4, in appendix.

Source of data: Krenz et al. (July 2001), p. 15

4.2.3 Quality

A common challenge when liberalizing is to maintain the quality in production of cotton.⁶⁹ The Cotton Improvement Fund is the organization in charge of the improvement of the Egyptian cotton. The trademark Egyptian Cotton TM is a part of this work and the role of this label is promotion and to ensure the quality and that the product is made of 100% of Egyptian cotton.⁷⁰

CATGO (Cotton Arbitration, Testing and Grading Organization) is a part of the Ministry of Supply and Internal Trade and is the organization in charge of grading seed cotton in Egypt. It offers services like classing and evaluating the crop to the companies that are dealing with seed cotton and lint cotton. It is the government’s policy that CATGO should provide seed cotton grading services for public firms as well as private firms. Until 2000 it was unclear

⁶⁹ Poulton et al. (2004), p.520

⁷⁰ Ministry of Agriculture and Land Reclamation

whether the organization should serve also the private companies but since late 2000 it is stated that CATGO should be a neutral supervising cotton organization.⁷¹

Even on the private side efforts are made in order to ensure the quality of the cotton produced in Egypt. One of the privatized companies, Arabia, has introduced new and more efficient equipment. They have for example installed new gin stands, imported from India, which are more productive than the traditional ones and advantageous in the sense that they require less energy. In addition to these measures, a quality control department has been established in private companies. The quality control involves inspectors stationed at each of the companies' gins and their job is to follow the production and assure that the quality is fulfilled throughout the whole process. Even Nile Ginning has improved their equipment since the privatization but not to the same great extent as Arabia.⁷²

The quality of cotton depends on various factors. Two important features when discussing high quality are the absence of trash and contaminates. The trash, percentage of the weight cotton, has decreased since 1994 for almost all of the cotton varieties produced in Egypt. The varieties with highest percentage of trash are, not surprisingly, the cotton of lowest quality, Giza 80 and Giza 83.⁷³

Contaminates could involve different things, such as chemicals, organic matter or inorganic matter. In 1995 a survey made showed that 24% of the responding foreign spinning companies thought that the Egyptian cotton had problems with contamination. Two years later the situation was worsen and 26% now thought that the Egyptian cotton was contaminated. Since then the GOE has made campaigns in order to reduce the contaminants and efforts were especially made on farm level. In 1998/99 the ginnerers were instructed not to accept cotton that did not come in specific bags, bags that could not reduce the quality of the cotton. However, the large numbers of cotton producers in Egypt has complicated the procedure of educating the farmers in improved production techniques. Since 1998 the quality has been improved but all contaminants are still not eliminated.⁷⁴

⁷¹ Holtzman and Mostafa (2002), p. 10

⁷² Maziad (2002), p. 20

⁷³ Krenz et al. (1999), p.7

⁷⁴ Ibid, pp. 8-32

5 Evaluation of the Reform

Three of the main objectives with the APRP for the cotton sector were; to liberalize the market, privatization of public companies and to increase competitiveness on the global market. Have these goals been reached – and if so how well?

The Egyptian cotton sector has in ten years gone from being a regulated market, governed by the GOE, to become a market that in theory is open for any private participants and to a high degree is influenced by market forces. One part of the cotton sector that yet is not liberalized is the export sector. The existence of Alcotexa is however a problem that gradually disappears, since the private companies nowadays have a great influence in the organisation.

The privatization process cannot be seen as successful. Only two out of five ginning companies have gone through the privatization process and the spinning industry has also only been partly privatized.

Prices are important when discussing competitiveness. The Egyptian cotton prices are criticized for being too high and that they have to be more market based. Compared to less qualitative cotton varieties, the Egyptian prices are indeed very high, but when comparing to the average price of American Pima we can see that Egyptian prices are not unreasonable high. However, raising the price as the GOE did in 1996 cannot be repeated if the objective is no be competitive on the international market.

Another goal with the APRP was export promotion, which is a target that seems to have been fulfilled. If we take a look at Figure 3 at page 25, we can see that the export increased dramatically in connection to the take-off of the reform. Two years later, Egyptian exports were at a relative low level. This coincides with the above-explained decrease in production and an increase in price, which also is likely to be the cause. After this fall the export is on its feet again but of course very much dependent upon the future Egyptian price policy.

5.1 Increased competition and less vertical integration

When looking at the two pictures showing the institutional structures before and after the reform we can draw the conclusion that the competition in the cotton sector should have increased. The structure after the reform is much more complex and consists of more actors than before, from input level to trading with the final product. The numbers of actors do not, however, tell us the whole story about the competition since the market in theory could be divided among the different players.

Starting on input level the number of actors has increased from one to at least four. The reform has removed the monopoly power that the PBDAC and the cooperatives had over marketing and the provision of most inputs. The farmers now have the freedom of choice to decide from whom to buy their inputs and it seems like the new regulations have had positive effects on competition, still not to the same extent as for other crops included in the APRP. The GOE still controls the trade with seeds and it is worth noticing that only 27 percent of the farmers in 2002 felt free to buy their seeds wherever they wanted to. Another fact that limits the competition is that the GOE keeps playing a role in deciding which crops to be grown every year. However, in almost all cotton producing countries it still exists regulations about seed production and what varieties to produce, also in economies regarded as fully liberalized. The GOE's integration in the market of seeds is a way of controlling and ensuring the quality of the Egyptian cotton. Still we cannot ignore the fact that it reduces the farmers' possibilities to influence their own situation and opportunity to be innovative. Conclusively the liberalization of the different sub areas of the input market has been carried through more or less successfully.

Something positive regarding competition, again at least in theory, for the farmers is that since liberalization they are free to sell the seed cotton to whomever they want to. The number of buyers has changed from six companies that all belonged to the GOE up to seventy-two buyers in 2001. The theoretical possibility is there but what about real competition? The competition has increased no question about that, but a lot can still be done. The majority of the seed cotton is still delivered to the PBDAC rings and since there is only one buyer allowed per ring the lack of competition at these rings are obvious.

One negative aspect of the reform is the failure of providing market information and this is a reason for farmers to keep on delivering their seed cotton to the PBDAC rings. The producers believe that the best service is offered there even though this is not always the case. For example the private actors are making a great effort improving quality and technique and surveys show that the private traders are the best ones regarding fast payment back to the farmers. In order to make use of all the possibilities created during the reform, information has to be spread, otherwise all effort made are without effect.

Even though we can see a striking increase in number of buyers, the number of ginning companies is still the same. The change is that two out of the five are privatized, which is not enough. All the ginning companies should go through the process of privatization. To worsen the competitive situation the GOE has during some seasons literally forbidden the public traders to sell seed cotton to the private ginning companies and given different rebates, such as transportation rebates, to the public sector. The Egyptian cotton production has also been characterized by a lot of different varieties and in order to increase the competition on the area the number of varieties should be decreased. If so, the farmers would have more ginners to choose from and thereby a higher degree of competition is permitted.

One indicator that usually can tell us something about the competitive level on the market is price. In this case the price is not of the same dignity when determining competition since the market forces do not fully set the price in Egypt. The prices for seed bought from the farmers have increased and so has the farmers' share of final cotton price. One price increase came directly after the beginning of the liberalization. These types of price rises should, however not be encouraged, better is to have increase in price due to market forces. The governmental price increase has had devastating consequences for the liberated market. Since many traders had to withdraw from the market in 1996/97, it is obvious that they were not gaining from the situation of high prices. Even though the farmers' selling price also increased the same year, they were no big winners either, their share of the final price actually decreased. One positive thing might have been that the too high lint export price did raise the prices on seed cotton in Egypt and when the lint export price went back to a more normal level, the seed cotton price remained at ca 0,95 USD/kg, increasing the farmers' share of final price. We can state that high prices on seed cotton is best for the individual farmer, when it is determined by market forces.

Another aspect of the high prices is that the domestic textile industry is affected, especially when import is restricted. It could be valuable to allow the spinning companies to import cheaper low quality cotton to enhance the Egyptian textile competitiveness on the world market.

Competition is made up of other things than price level. One possible positive effect coming from fixed prices is that when competition is not a matter of price, the producers have to focus on other parts such as quality and service, something that can make the sector more efficient. Since prices have been relative fixed in Egypt other factors have been of more importance. Service and time frame etc have been of extra importance, especially for the private companies since it has happened that the state has given subsidies and rebates to public owned businesses.

As mentioned before, one goal with liberalizing a sector is to decrease its vertical integration. Before liberalization the Egyptian cotton structure was very much characterized by the integration between farmers and the state in shape of PBDAC and the cooperatives. All inputs came via PBDAC and the cooperatives and the seed cotton went back to them after harvesting. This vertical integration is very much broken thanks to liberalizing measures. Nevertheless, some trace of vertical integration could still be found between the farmers and PBDAC. It seems like certain farmers feel obliged to deliver the cotton to the PBDAC rings as a step in repaying their loans.

Conclusively it can be said that it above all looks like the Egyptian cotton sector is experiencing increased competition. Still, Nylandsted-Larsen is quite right when pointing out that competition does not necessary come up as an automatic result of liberalization. The prerequisites for increased competition are indeed present but governmental restrictions and accustomed behaviour and manners are slowing down the development towards total liberalization of the sector.

5.2 Coordination

Experience tells us that a market with many companies is more difficult to coordinate. As presented in chapter four, the liberalization of the cotton industry has involved many new

actors and a more complex market structure of the Egyptian cotton sector. A justified question to ask is: Has Egypt managed to coordinate the new more complex market?

The coordination made before liberalization was of course carried through by the public sector, since no one else had a saying in that market system. In the case of Egypt it seems like the type of coordination most frequently used is still the state-impersonal coordination and the situation of coordination has not changed. One example of the state taking the responsibility is regarding quality grading, mentioned in chapter 4.3.3. The GOE should be praised for taking a big responsibility for coordinating the market, especially by making research, grading and other quality related measures available. It is very positive that CATGO finally in 2002 decided to enclose the private companies in the process; anything else would have been a defeat for the development of a liberalized and well functioning sector.

The trademark for Egyptian cotton and Alcotexa is two other examples of coordination of the cotton sector. The Alcotexa is turning from being an example of state-impersonal coordination to a mixture of the same and impersonal coordination carried through by private actors. As discussed in chapter three, it is of great importance that the state has the courage to let private actors taking responsibility for coordinating the market.

Something that could be seen as negative from a competitive point of view and positive from a coordination point of view is the issue of the GOE deciding over which cotton varieties to be grown every year. To have an efficient cotton sector someone has to coordinate even this part of the industry. If no private actor is ready to take that responsibility maybe it is best to keep the task in the hands of the government, at least for a period of transition. However, maybe it is time for this period of transition to soon come to an end.

Another issue, in which we can find different arguments depending on if we prefer competition or coordination, is the number of ginning companies. As mentioned it could be seen as a defeat that the number of ginning companies have not increased during the last ten years. On the other hand the low number of ginners could actually be the reason for being able to improve the quality on the Egyptian cotton, since it is preferable to coordinate fewer companies. The opposite has been experienced on farm level where it has been difficulties in coordinating half a million farmers and thereby to ensue the quality of the seed cotton.

According to economic theory, sectors with effective coordination are often the most successful ones regarding performance such as production growth and producer profitability. If the coordination in Egypt could be classified as a success, why is it that the no production growth has been taking place? The answer could be found in other reasons, outside the limits of the reform, such as the changed conditions on the world market mentioned in the introduction. Even though Egypt has not experienced an average growth in production, the yield has increased over the years. The increased yield is a healthy sign and could be an effect of improved coordination and technical advances.

Opinion is rather united around the idea of a trade-off between competition and coordination. However, experience has shown that exceptions do exist and that the outcome is situation depending. In the Egyptian case there is a fairly good balance between coordination and competition. On the paper and in statistics, the Egyptian cotton industry has reached a pretty high level of competition but in reality there is still some to do to improve the market. The coordination is good but most of it is still carried out by public actors. To achieve higher competition private actors must to a higher degree be a part of coordinating the cotton sector.

6 Conclusions

The structure of the Egyptian cotton industry has changed. This can mainly be seen through the number of players participating on the market and the increased freedom of choice for the actors. The private sector is fairly well established in all parts of the cotton production process, from input market to marketing and exporting the cotton. The public share of the market is decreasing. The Egyptian cotton sector could now be described as something in-between a concentrated market system and one with numerous small players.

Regarding the performance, the cotton sector in Egypt has done pretty well. The production has stayed on the same average level but the yield has increased. Other merits are increased prices and farmers' share of the final export price. Also the export is greater today than what it was before the reform.

Egypt has reach both increased competition and been able to coordinate the market, but still a lot has to be done. With this new structure that the reform has created, the Egyptian cotton sector could be more competitive than what it is today. To increase the competition, all the actors on the Egyptian cotton market have to be aware of the structural changes made thanks to the liberalization, something that requires effort concerning market information. To continue the unsuccessful process of privatization is another measure in order to enhance competition, like to stop the discrimination between private and public firms.

The quality of Egyptian cotton was not the best during the first years of liberalization. However both the GOE and private actors have taken good initiatives in order to improve and maintain the quality of Egyptian cotton and the situation has improved. To come further in this process even better coordination is demanded. Since price still is the most important factor deciding about a company's or a country's competitiveness Egypt has to work harder in order to have a chance at the new tougher global market. Quality is their most important attribute of Egyptian cotton and this is why grading and quality controls must be highly prioritized. Another step in improving the competitive situation is to privatize the

coordination, something that has to be done with caution. Alcotexa is one institution for which serious changes in coordination must be made.

Conclusively it can be established that Egypt has succeeded in improving both the competitive situation and the coordination within the sector, even though there still is a long way to go to be fully liberalized. It has been shown that there in some cases exists a trade-off between the coordination and competition, for example when taking action in order to improve quality. A high number of firms often involves higher degree of competition while it complicates the coordination of quality enhancing measures. In other cases it seems like competition and coordination actually can go hand in hand, for example when coordinating the number of cotton varieties in order to increase competition at the gins and in the case of impersonal coordination carried out by private actors.

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Appendix

Table A.1: Egyptian Export and Import (mt) of Lint cotton, 1991-2004

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Export	18000	17000	18000	117000	67000	19000	46000	70000	108000	97000	79000	84000	160000	89000
Import	51000	63000	37000	0	41000	20000	0	0	0	17000	27000	6000	6000	50000

Source of data: Documents of the ICAC, (June 2005)

Table A.2: Egyptian Production, Consumption and Exports of Lint cotton in metric tons, 1991-2004

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Production + Stocks	283000	285000	302000	397000	368000	226000	253000	304000	301000	283000	231000	278000	395000	214000
Consumption - Imports	272000	266000	284000	279000	199000	207000	203000	236000	189000	147000	137000	148000	194000	125000
Exports	18000	17000	18000	117000	67000	19000	46000	70000	108000	97000	79000	84000	160000	89000

Source of data: Documents of the ICAC, (June 2005)

Table A.3: Egyptian Production (mt) of Seed Cotton and Lint Cotton, 1991-1995

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Seed Cotton	814634	796038	946546	1083973	382250	640171	898320	920699	628194	617792	547502	832267	765610	550000	740000
Lint Cotton	295950	291300	357350	415700	254750	241550	345700	342050	229700	228100	206150	317000	290000	198000	285000

Sources of data: The numbers for Seed Cotton are computed from statistics in *FAOSTAT* and the numbers for Lint Cotton comes from *Documents of the ICAC*, (June 2005).

Table A.4: Seed Cotton Yield and Lint Cotton Yield in Kg per Hectare, 1990-2000

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Yield, Seed Cotton	1955	2225	2683	2919	2251	2146	2300	2552	1895	2281	2514
Yield, Lint Cotton	710	814	1013	1119	840	810	894	948	693	860	946

Source of data: Krenz et al. (July 2002), p.15