



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

IMPACTS OF GATT IMPLEMENTATION AND ANIMAL PROTEIN FOOD SYSTEM IN EGYPT

By

Ibrahim Soliman

Professor of Agricultural Economics, Zagazig University

INTRODUCTION

The production firms of the animal protein food system in Egypt, postulate that the current heavy subsidy of imported animal products by the exporters, mainly, EEC and U.S.A. has created unfair competitiveness with the local comparable commodities. However consumers would suffer from higher food importation bill after phasing out the subsidy by implementation of GATT. Expected increase in imported feeds prices, mainly concentrates, would also raise the costs of production. Therefore, this study focuses on markets, competition, efficiency and trade policy; thus prices play a major role in all aspects of the analysis, accordingly, we have attempted to pull together prices at various levels for different commodities at the domestic and international level and make relevant comparisons with Egyptian prices. This study also represents the start of a simple price outlook exercise which could easily be expanded and improved upon by the Egyptian Government or by a commercial or industry association, within the Era of new international trade system after GATT approval.

The price situation and outlook data presented here for foreign markets, is based upon several sources. Current U.S.A. cash prices are taken from magazine Internal U.S.A. market

trends and production costs are taken from various issues of USDA Situation and Outlook Reports. International prices are taken from the USDA reports, F.A.O. Production and Trade Yearbooks and the World Bank (1993) publication "Price Prospects for Major Primary Commodities, 1990-2005, Vol. 11". The latter publication also provides medium-and long-term price projections for major primary commodities including beef, corn, wheat and soybeans. These are deflated by the MUV index of prices. US\$ and Egyptian Pound rates are converted at LE 3.35- \$1.00 U.S.A. weights or measures (pounds, bushels, hundred weight, etc.) are converted to metric units. Retail price comparisons are between U.S. supermarkets and Cairo supermarkets. We realize that most Egyptian consumers may pay somewhat less than the Cairo supermarket retail prices we have listed here. The price and market analysis is carried out for the major groups of interest. Where applicable, possible outcomes of GATT negotiations on agricultural trade are discussed, as well as current export subsidies arrangement for some products which are imported by Egypt.

There are numerous sources of data for constructing budgets of various livestock enterprises in Egypt. Most, however, are pre-reform and data on prices, farm-level cropping restrictions and the effects of input and output subsidies is cut of date. Therefore, this study based upon new set of budgets that simulated to great extend the current situation.

As a basis for comparison, production costs for selected livestock in the U.S. were compiled. These do not represent border prices but are a useful comparison in deriving general ideas about production efficiencies where certain input costs (particularly labor) vary greatly. The U.S. costs were derived from USDA bulletins and various issues of Feedstuffs

magazine. The dates are late September-early October, 1993. The comparable figures for Egypt come from this study analysis carried out above. The animals are of generally comparable quality. Table 1 summarizes the data at the farm-gate level.

For Egypt budget analysis, poultry for commercial producers was divided into broiler units and layer units. While some budgets of broiler production costs are summarized for the period 1989-1991, the period following the gradual removal of subsidies to this subsector, and are updated to 1993, some other budgets were actual figures of 1993. Table (2) presents estimates of 1993 broiler chicken production costs. Production costs for eggs were estimated from commercial broiler farms, not from traditional village egg producers. The study provides several comparable estimates of egg production costs.

Beef cattle and buffalo feedlot budgets were relatively straightforward. Feed costs, feed conversion efficiencies, purchase and sale prices and mortality rates were fairly uniform between the various references of data consulted during the study. Table (2) summarizes costs and returns for respectively, buffalo feedlot fattening budgets and dairy cattle bull feedlot fattening budgets. Milk production costs were also estimated for buffalo and cattle under both commercial (dairy cattle only) and conventional smallholder conditions. Table 1, summarizes costs for commercial farms and for buffalo and cattle smallholder dairying.

Finally, border prices for livestock products and feed stuff ingredients are considered. Border prices are defined as the domestic equivalent of the export price for a commodity. Border prices are calculated using export prices as the starting point and then performing the following adjustments:(a)

convert from export price in \$ cents pound to LE/kg. Since there is no open parallel market for LE, the current exchange rate of \$1.00 U.S.=LE 3.35 was used.(b)Adjust for F.O.B. expenses; (c)Adjust for processing costs, if any; (d)Adjust for by-product values, if any; (e)Adjust for transport and handling costs; (f)Adjust for waste or shrinkage. This provides an equivalent cost at the level of interest for analysis, viz. slaughterhouse, cold store, feed mill and live animals or milk at the farm gate. A border price equal to the procurement price at the relevant level in the marketing or processing chain implies that the recipient is paid the full export price, adjusted for marketing and processing cost. Calculations for border prices for the major livestock products of interest are carried out in tables 3 and 4.

Red Meat :

Price comparisons are somewhat imprecise due to the many forms in which beef is traded and used as well as substantial differences in quality.

Retail price :

At the retail level, the following prices were found in November, 1993 (per kg) :

Product	Cairo Retail		U.S. Retail	
Ground beef	\$ 4.20	LE 14.00	\$ 3.46	LE 11.60
Round Steak	\$ 4.78	LE 16.00	\$ 6.38	LE 21.37

Break-even costs :

Break-even costs for fed steers in the U.S. in August, 1993 were \$1.76/kg (LE 5.9/kg), while this study budgets calculated break-even costs of fattened in Egypt of \$1.98/kg (LE 6.92) for cattle and much more (\$2.25/kg) or (LE 7.89./kg) for fattened buffalo under small holder conditions, it reached less level, on commercial feedlot farms, i.e. \$1.82/kg (LE 6.4/kg) for cattle and \$1.9/kg (LE 6.66/kg) for buffalo, but

still above the costs level in USA.

The main product traded internationally is frozen boneless cow forequarters from Australia and New Zealand. Quotes for early 1994 delivery, CIF U.S. East Coast ports are \$ 2.42/kg (LE 8.11/kg) with the following prices (deflated basis) projected by the World Bank (Year 2000 : \$2.28/kg) and (year 2005 : \$2.53/kg). These forecasts thus call for international prices of \$2.200-2.500/ton for medium to low quality boneless beef. A comparable U.S. product is the wholesale price for "boxed beef, cut out, select 1-3 grade". Current cash prices for this product are also \$2.42/kg (LE 8.11/kg). The Australian meat Corporation quoted c.i.f prices Alexandria for frozen forequarters of \$1.82/kg or \$1822/ton (LE 6.11/kg), even though, these are not yet in the form of retail cuts.

Currently, Egypt is importing heavily subsidized European frozen beef, retail cuts c.i.f Alexandria, for only \$1.200/ton (LE 4.02/kg). Adding handling, shipping, taxes and retail mark-up of 50% would still make these products available at the retail level at about LE 6.00/kg, well under local meat prices. Importer and distributor profits thus would be much high if they added one pound per kilo as profit, in comparison with domestic meat.

The subsidy from the EEC, based on European carcass beef prices, would be in the range of \$1300/ton, as estimated by the study. There is thus a strong case for a countervailing duty to bring CIF prices up to the range of \$2.500/ton, a close estimate of the international unsubsidized CIF price for this type of meat. European live animal prices and carcass prices are similar to those listed earlier for the U.S. and are higher than production costs in Egypt for cattle and buffalo meat.

Field visits further confirmed the extremely low prices at which subsidized European live animals and meat were

entering Egypt and the negative impact this was having on the price for fattened cattle and buffalo. Dairy and mixed breed steers from Europe were being supplied to slaughterhouses for LE 4.50/kg liveweight (US \$1.34/kg), far below the prices for comparable grades of cattle in the U.S.A. or Europe. This compares to production costs in Egypt of LE 5.56-LE 6.66 for comparable or better quality grades of live cattle. These local production costs are still 25% higher than those of the main beef exporting countries.

Manufacturing grade boneless beef, 11-13% fat, was being delivered to processing plants in Egypt for costs of only US\$ 900/ton CIF Alexandria plus delivery costs of LE 500/ton for a net price delivered to the processing plants of LE 3518/ton (US\$1050/ton), far below the export price of unsubsidized New Zealand/Australian beef of comparable quality which is currently US\$2420/ton, delivered, U.S. East Coast. The imported EEC beef thus costs the processor LE 3.515/kg and is sold as retail hamburger meat for between LE 14 and 16/kg. This is providing the local processors, importers and distributors enormous profits at the expense of local producers. The same holds true for other types of imported red meat.

Border Price for Beef :

Soliman (1982) sets out in detail the procedures needed to adjust locally produced beef, imported carcass meat, imported boneless meat and live animals imported for slaughter on a product-equivalent basis. A large number of adjustments are necessary given the different form of the products. The data on slaughterhouse carcass weight and boneless weight adjustments were derived from a series of experiments in slaughterhouses and cold stores conducted by the Ministry of Supply during 1980-81 and reflected general adjustment factors for Egypt quite well. The basic carcass characteristics

and dressing percentages should be in the same range in 1993 as there has been little change in the genetic composition and feeding practices of local animals during this period. It was decided not to use the category "red meat" as the marker product as there is no standard for the product in international trade as various types of cuts are traded internationally. This is discussed in more detail in the previous section of this study.

The product initially chosen was Australian/New Zealand frozen boneless cow meat, 60/kg cartons. We assume CIF price Alexandria is the same as the CIF price for the same product, US East Coast ports, or \$2420/ton. This will be used as a marker price by adding 3% for handling, storage and transport, for a total of \$ 2493/ton. Table 3 sets out the detailed costs of producing an equivalent product in Egypt. This table is indicative only as it was not possible during this study to update all costs included, most costs were calculated on a percentage of total value basis, rather than trying to adjust each cost item for cost inflation. The trader margins found in this study analysis are very close to those calculated by Soliman (1982) and the retail trader selling costs are those prevailing in the Cairo market. By adjusting for revenues from offal, bones, etc. we came up with a weighted average price of 1st and 2nd quality beef of about LE 11.68/kg of red meat. This is 38% higher than the CIF cost of Australian boneless beef which is a lower quality product. A more comparable product would be US boxed beef cutout, choice 1-3 grade which is currently priced at \$2500/ton midwest MARKET of U.S.A and would cost about \$2.80/kg delivered Cairo (LE 9.38/kg), but the border price is still 19% higher.

But the local border price is 2.7 times the landed costs of heavily subsidized EEC beef exports, \$1.2/kg (see section above). We can also make a more direct comparison using live cattle prices. Current costs of Australian live steers, slaughter

weight, CIF Alexandria, 450/kg live weight, are \$580/head, or \$1.29/kg liveweight, (LE 4.32), which is highly below this study estimated cost for cattle fattening of LE 5.57/kg. Again, heavily subsidized Irish live cattle are entering Egypt for less than those costs.

Both of the above analyses indicate that Egyptian beef production costs are above, comparable border prices for beef and substantial expansion of red meat production will not be cost effective at current world market prices. If frozen beef prices go to \$2800/ton, this would bring costs of imports closer to local costs but would still not result in a comparative advantage for Egyptian producers.

Poultry and Eggs :

Price and production cost comparisons for commercial products (broilers and eggs) are straightforward. The comparisons are not attempted for meat and eggs produced by local (Baladi) chickens.

Found the following :

Product type	Cairo Retail		U.S. Retail	
Eggs, large (dozen)	\$ 0.96	LE 3.22	\$ 0.90	LE 3.0
Chicken, whole, fresh	\$ 2.20	LE 7.37	\$ 2.90	LE 6.70
Frozen broiler, kg	\$ 1.91	LE 6.40	\$ 1.56	LE 5.23

Production costs :

Production costs for eggs in the U.S. in late 1993 were \$0.474/dozen, (LE 1.59) while this study budgets indicated costs in Egypt of about \$0.487/dozen (LE 1.71/dozen). Production costs for U.S. broiler chickens in August, 1993 were \$0.59/kg (LE 1.98) while this study budgets indicated farm gate costs in Egypt of \$0.86/kg (LE 3.0). These differentials are consistent with the earlier studies observations that low levels of production efficiency, particularly in the broiler industry, have resulted in high production costs.

The U.S. dominates the export market in the main type of exported product, whole frozen broilers. The 1991 average FOB price, in US \$/kg, was \$1.19. Since then, prices have moved up moderately but countries such as Egypt are able to import poultry meat at lower prices due to competitive subsidies offered by the EEC and U.S.A. This was one reason for the severe cost-price squeeze on the Egyptian broiler producers which triggered the import ban. For purposes of this study, a market price of \$ 1.25/kg for frozen broilers, FOB New York is used. Given the cost pressures on the industry and the long-term outlook for prices of the major feed ingredients (maize and soybean meal), there will not be much upward pressure on this price in the medium term as the border price calculated on this marker product will also serve as a long-range cost target for the local broiler industry. Current ex-factory costs for frozen broilers in Egypt is about LE 5.5/kg (\$1.64/kg) or about 30% over U.S. costs. The domestic cost would be about \$1.47 per bird or \$0.97/kg, liveweight farmgate basis. Current U.S. farm-gate prices are \$0.59/kg which confirms the inefficiencies which remain in the poultry sector. The estimated border price for frozen broilers, CIF Alexandria without export subsidies, was estimated as \$1.52/kg.

For eggs, no comparable calculation was made as fresh eggs for consumption are not widely traded internationally. Instead, we used U.S. production costs as for the local egg industry. However, Production costs were consistently in the range of (LE1.64-LE 1.77/dozen); (\$0.49/dozen) which is slightly higher than current US farm-level costs of \$0.474/dozen. Productivity of layer-farms in Egypt were generally slightly lower than comparable US levels but lower labor costs and utility costs help keep costs in Egypt down.

Border Price for Chicken Meat :

The border price calculated for US frozen broilers CIF Cairo was \$1.52/kg (LE 5.1/kg) in the Section above. Current production costs in Egypt for frozen broilers are \$1.64/kg (LE 5.5/kg), or slightly above CIF costs. With marginal improvements in production efficiency and better utilization of economies of scale in processing, Egyptian costs should be about equal to unsubsidized cost of imported whole frozen broiler chicken meat. Under the current situation of competitive subsidization of frozen broilers by the US and the EEC, as shown earlier, CIF prices would be much less than local production costs. With contained access to low cost supplies of imported maize and soybean meal, Egyptian broiler production costs should remain at about the border price levels as long as some increases in efficiency take place.

Dairy Products :

A large variety of products are produced, consumed, and imported into Egypt. The main products, however, are fresh milk, milk powder, butter and white cheese. First, a comparison of retail prices is made :

Product	Cairo Retail		U.S. Retail	
Pasteurized milk (liter)	\$ 0.60	LE 2.00	\$ 0.60	LE 2.00
Butter (kg) ¹	\$ 3.73	LE 12.5	\$ 2.05	LE 6.86
Feta cheese (kg)	\$ 2.09	LE 7.00	\$ 2.42	LE 8.11
Whole cream				
Milk powder (kg) ²	\$ 4.48	LE 15.0	\$ 3.56	LE 11.93

U.S. butter price takes Chicago wholesale price and adds 20% wholesale-retail mark-up. U.S. milk powder price takes Minneapolis bulk wholesale price and adds 40% for packaging and retailing.

In Egypt, little fresh milk is sold through retail supermarkets so a better indicator of local consumer prices is

the delivered cost of raw buffalo milk in major cities which is currently \$0.45/liter (LE 1.50). Village level prices for raw milk delivered to the household is about \$0.36/liter (LE 1.20) for buffalo milk.

Considerable variation was found in farmgate prices for cow and buffalo milk, depending on region, method of delivery and quality. Commercial cattle dairies were delivering bulk chilled cow milk, 3.5% fat basis, to processors for about LE 0.50/kg (U.S.\$0.24/kg) while comparable prices for buffalo milk, 7.2% fat basis, was LE 1.14/kg (U.S.\$0.42/kg). In more remote areas, smallholders selling small quantities to middlemen receive as little as LE 0.40/kg (U.S.\$0.12/kg) for cows milk and LE 0.6 to 0.7/kg U.S.\$0.18 to (U.S.\$0.21/kg) for buffalo milk.

The current average U.S. farmgate price in the U.S. for all classes of milk is \$0.28/kg (LE0.94) for cow milk, 3.2% butterfat. These differences are a good reflection of differences in production costs between the two countries. It was not possible to obtain directly U.S. milk production costs but the author, through personal communication, estimated it at about \$0.21/kg (LE 0.90) while calculated milk production costs in Egypt in this study for buffalo small holder producers at \$0.09/kg (LE0.3). We now briefly describe the main products imported by Egypt and their price structure.

Commercial milk production costs were between LE0.55 and LE0.63/kg and were much lower than comparable figures for smallholder cattle (LE0.47/kg), Smallholder buffalo production costs were less than LE0.3/kg, adjusted to cow milk equivalents using Jane's equation. Cattle milk costs were much higher (Table 2) at LE 0.47/kg due to low yields but input quantities and costs were comparable to those of buffalo. The non-milk returns still provide a positive return to the cow

even though direct revenues from milk sales almost cover production costs. The conventional, subsistence oriented Baladi cattle producers obtain yields of only 600-900 kg/annum and those animals need to be gradually replaced with either pure exotic breed "holstein or at least crossbred animals as part of a well managed long-term breed improvement program.

Milk Powder :

Both skim milk powder (SMP) and whole cream milk powder are used for recombining into fluid milk and milk products. The U.S. Agricultural Attache estimates 80% of milk powder imported into Egypt as SMP, so the analysis which follows focuses on this product. The export price in September, 1993 was \$1.375 but the price is quite volatile, rising to \$1.855 in September, 1992. The support price for this product in the U.S. is \$2.279/ton while the current wholesale price in the US is above the support price at 52.407/ton. Current import prices of SMP are about \$1525/ton, CIF Alexandria. A continued decrease to the \$1.400-1.500/ton range is likely for the 2nd half of the decade unless GATT negotiation on agricultural products are successful, in which case prices would gradually trend upwards to the \$1.600-2.000/ton range. The minimum international export prices set by the International Dairy Agreement under GATT is \$1.350/ton and recent prices have been close to that floor price. The market price used for border price calculations is \$1.600/mt CIF Alexandria for 1993 rising to \$1.800/ml CIF Alexandria for the medium-term (year 2000). Table 4 sets out the calculations to convert this to a farm level indicative cost of production for Egyptian producers to remain competitive with unsubsidized and subsidized imports. Subsidies are a feature of the international market for dairy products. As noted above, the U.S. support price for SMP is \$2.279/ton while the international export price is only \$1.375/ton, a difference of almost \$1.000. The U.S operates a Dairy Incentive Program to

make up the difference between US market prices and export prices which obviously varies with the international price and particularly with the supplies of the major low cost exporters. New Zealand and Australia. The EEC operates a similar subsidy scheme with subsidies per ton even greater than in the US. The FAO Production Yearbook, 1992, Vol. 46, quotes ex-factory prices in the Netherlands for whole milk powder of \$3.469/ton and for SMP of \$2.872/ton, prices even higher than current U.S. market prices. With a CIF price in Alexandria of \$1.600/ton a subsidy of at least \$1.330/ton is provided by the EEC. The World Bank (1993) does not make long-term projection for dairy products. Based on current market prices and the limited impact (GATT) is expected to have on dairy surpluses, the export prices noted above are used (\$1600 medium-term and \$1800 long-term).

As Egypt does not have a milk powder industry, it is difficult to justify a countervailing duty on imported milk powder as the cost of locally recombined milk using powder is similar to the price of locally produced milk. The cost of milk powder recombined is about \$0.58/liter (LE1.94) at the retail level.

Bold face type : EEC cheese exports to Egypt also receive subsidies. Feta cheese from Denmark is imported CIF Alexandria for LE 4.00/kg, (\$1.19/kg) compared to local feta cheese, retail level, Cairo, of \$2.00/kg. The apparent subsidy compared to EEC wholesale prices is on the order of \$1.400/ton based on wholesale prices of \$2.600/ton. Similar subsidies apply to other types of imported European cheese. The FAO Production Yearbook (1992) quotes ex-factory prices in the Netherlands for full-fat Gouda cheese of \$3.816/ton while current Cheddar cheese prices, wholesale, Cairo, are \$2.880/ton. The local feta cheese and Greek-style hard cheeses will not be able to compete with such heavy subsidies if EEC exporters increase their exports to Egypt.

Comparative Advantage Analysis :

Based upon livestock production costs using financial analysis only, It was found that dairy production has less a medium to strong comparative advantage based on import parity costs, frozen broiler meat has a small comparative disadvantage and that red meat production has a disadvantage in the production of lower quality meat that has to compete with grass-fed beef from Australia and New Zealand. Egypt has a comparative disadvantage in the production of maize at full economic cost but a comparative advantage using financial costs.

Our analysis is based primarily on local costs calculated in financial, not economic terms. In a general sense, The study has spelled out the general trend which would result if Egypt had full-cost pricing of all agricultural inputs. In general, full cost pricing of all inputs, including land rent, would make locally produced maize competitive and would push up milk production costs substantially, particularly in the smallholder sector which is heavily dependant on berseem. Red meat production costs would also go up, making local production even less competitive with imported red meat. There should not be a major impact on poultry production costs as the commercial sector could rely on imported feedstuffs.

This type of analysis can only be taken so far, however, on a case by case basis. The overall issue of the impact on costs and revenues of full-cost input pricing has to be analyzed within a general equilibrium framework that would allow resources, prices and exchange rates to adjust to the drastic changes in production costs that would result. The impact of full cost pricing would push up local production costs and the overall price structure to the extent that the inflationary impact would cause a significant devaluation of the Egyptian Pound which would readjust Egyptian production costs much closer to World Market levels.

Continue with policy changes to develop a market-economy environment for the animal protein food system as a means of assuring continued investment, reorganization, and up-dating of management and technology. Both domestic and foreign investors and managers are attracted to areas where market forces determine prices and available capital.

Based on the analysis of the study it is important that trade be open to allow imports of meat, eggs, and milk products that are priced at full cost world market prices. This "fair competition" policy will provide discipline to the development of the animal protein food system and helps insure that the industry is sustainable as public sector subsidies are reduced. It is also important in establishing output prices that are realistic for determining the value of businesses that are being de-nationalized.

However, care must be taken to insure that these imports are priced at full cost of production and transport. If meat, eggs, or milk products are being sold on the world market and imported here at below cost (dumping), this will unnecessarily constrain the development of animal production, input processing and marketing firms.

To insure imports are priced at full world market values will require adapting the current legislation or developing further "anti-dumping" legislation to comply with GATT. The executing agency will need to act quickly and must therefore have clear protest procedures and communications on import price decisions. Measures of world prices, both "fair" and subsidized can be obtained from the GATT organization. It should be noted that this is not a basis for banning imports of red meat. A substantial deficit of red meat exists and the market and the welfare of the consumer would be seriously

disrupted without imports of red meat. Further, imports are a source of less expensive meats that are purchased by the poor that are at a protein quality risk.

To further the development of the market economy and to be in line with the GATT it will be also useful to lift the "pocket veto" on imports of poultry. Imports are necessary to cause a restructuring of the industry so that it is competitive at the world market levels. The study assumes that imports spread out over the year that are within the 10%-20% range of production will not unduly lower prices and thereby impede production. Further, it leads to a higher level of consumer consumption that cannot otherwise be obtained.

As the market economy evolves and as the commercial sector of the animal protein food system expands tax incentives and selected de-regulation will be helpful in market development. Currently, incentives are needed to encourage the development of a market for chilled and frozen poultry meat. As this market develops proportionately fewer live birds will be purchased at retail and slaughtered. A similar situation exists with cow milk. Buffalo milk is preferred to that from more productive cows. Consequently, promotion efforts will be necessary to develop the less preferred product.

On the whole, it appears that Government of Egypt is gradually setting in motion macropolicies that enable a market economy, initiating an agricultural policy for food security, putting privatization and entrepreneurship into practice, and developing and importing applicable technology. To make a market economy, effective programs will be necessary for implementing a national food system survey on an annual basis, operating a food system marketing information scheme, and conducting an academic system that trains business managers and provides practical adaptive technological research.

REFERENCE

1. The Chemonics/APCP study (APCP, 1993) provided a great deal of recent data on animal use in the farms surveyed in the Cotton Response Study.
2. Fitch & Ibrahim, 1982.
3. World Bank, 1992.
4. APCP, 1993.
5. Negm, Soliman, Hamed & Abdel Aziz. 7th Conference of the Egyptian Society of Animal Production.
6. MOALR, Livestock Census, 1991.
7. IFAD, Livestock Intensification Project Baseline Survey. Minya, Beni Suef and Fayoum Governorates, 1991.
8. Unpublished Report on the National Veal Project. Animal Production Sector, MOALR, 1992.
9. Animal Production Sector, MOALR, Unpublished Data on the Poultry Industry, 1991.
10. Central Fund for Animal Wealth Development (CFAWD), MOALR, Cairo, 1989.
11. This section relies on personal communication from I. Soliman, Project co-team leader.
12. This section relies on personal communication from I. Soliman, Project Co-team Leader.
13. CAPMAS, 1990. The Standard International Trade Classification (revised).
14. MOALR, U.AES (Unpublished data).
15. CAPMAS, 1993, Statistical Yearbook.

Table 1. Farmgate Production Costs of USA Producers for Animal Protein Commodities.

Commodity	US	L.E.
Live Broiler, Per Kg	0.591	1.98
Table-Eggs per dozen	0.474	1.59
Fed Beef, per kg liveweight	1.76	5.9
Cow milk, per kg**	0.22	0.73

** USDA does not publish production costs, It is derived from personal communications.

Table 2. Estimates of Costs of Production and Profit per 1-kg of Animal Products, 1993.

Commodity	Net Costs per Kg, L.E.	Profit per kg, L.E.
Broiler, Live weight	3.03-2.94	0.38-0.56
Table-Eggs, per dozen	1.77-1.64	5.73-26.7
Commercial Dairy-Cattle, Exotic Breeds, adjusted 4% fat.	0.63-0.55	0.12-0.25
Commercial Buffalo-Dairy, adjusted 4% fat.	0.59	0.49
Smallholder, Cattle, adjusted 4% fat	0.47	0.00
Smallholder, Buffalo, adjusted 4% fat	0.28	0.49
Fattening, liveweight :Commercial buffalo-feedlot finishing	6.66	-1.32
Fattening, liveweight : small holder buffalo-feedlot finishing	7.89	-1.21
Fattening, liveweight : small holder buffalo-feedlot full cycle	5.95	-.61
Dairy bull-Cattle Feedlot Fattening :	6.4	-1.12
Fattening, liveweight : small holder Cattle-feedlot finishing	6.92	-1.08
Fattening, liveweight : small holder Cattle-feedlot full cycle	6.08	-.41

Table 3. Border Price Calculations for Red Meat and Cattle

Item	Unit	Quantity	Cost L.E.	weighted average of cattle, L.E. fattening
1. Fed animal	Kg	397	5.57	2210.10
2. Marketing cost	%	3.00%	2210	66.30
3. Cost to slaughterhouse				2267.40
4. Trader Level				
Hide, offal, fat, etc	%	16.70%	2276	380.16
other marketing costs	%	2.50%	2276	56.91
Carcass at 58%	Kg	230.26	8.48	1953.15
Trader margin	%	1953.15	11.40%	222.6
5. Retailer Level				
Carcass	Kg	230.26	9.45	2175.81
Transport., labor, power, rent%	%	1.00%	2175.81	21.76
Total cost:				2197.57
1st quality meat, (37.4% carcass wt.)	Kg	86.12		
2nd quality meat (4.3% carcass wt.)	Kg	102.01		2197.57
Total	Kg	188.12		
6. Average cost./Kg Red meat comparable to marker product				
L.E.				11.68/Kg
\$				3.34/Kg

Table 4. Border Price Calculations for Fresh Milk
(L.E. per ton, November 1993 prices, L.E. 3.35 = \$ 1.00)

Situation	(1)	(2)	(3)
Cost Item	Milk powder, subsidized (current situation)	Milk powder, int'l price medium-term projection	Milk powder, int'l price long-term projection
1. CIF price \$	1.525	1.725	1.925
2. CIF price L.E.	5108.75	5778.75	6448.75
3. Banking, handling, storage, transport, misc.	204.35	231.15	257.95
4. Total cost/ton	5108.75	5778.75	6448.75
5. Reconstitution cost.	528.67	598.10	667.45
6. Cost of reconstituted milk (LE/ton)	5637.51	6376.85	7116.20
7. Cost/ton (4% fat, fresh milk basis)	713.61	807.20	900.78
7. Cost/Kg : (fresh milk basis)	0.71	0.81	0.90

- 1- See the text for details, about conversion of FOB to CIF costs which are \$125/ton Columns 2 * 3 based on price projections developed in the study.
- 2- Converted at LE 3.35/\$1.00.
3. From Soliman, Elzaher and Fitch (1983) adjusted for 1993 costs. These were 4% of CIF cost.
5. From Soliman, El zaher and Fitch (1983) adjusted for 1993 costs. These were 10.35% of total cost.
7. conversion from powder to fluid basis @ 7.9 : 1.00.

Table 5. Import Regulations for Animals, Animal Products, Feedstuff

Commodity	Tarrif	Ban	Approval Required
	%		
Com.	1		
Sorghum/barley	5		
Straw/bran/premixes	10		
Hay/forage products	5		
Tapioca	5		
Molasses			
Live animals			
Feeder cattle/steers	5		
Bred heifers/cows	5		
Sheep/goats/camels	5		
Live poultry	80	Banned	
Swine	80	Banned	
Day old chicks	5		
Beef/veal	5		
Lamb/goat	5		Yes
Poultry	5		
Edible meat offals.	5		Yes
Table eggs.	80		
Dry milk	5		
Milk casein	1		
Butter (for retail)	20		
Butter, manufacturing.	5		
Butter oil/shortenin.	1		
Lard.	-	Banned	
Feta, Edam, Gouda.			
Cheddar cheese, for retail sale, 0.5-2.0Kg.	30(**)	Banned	