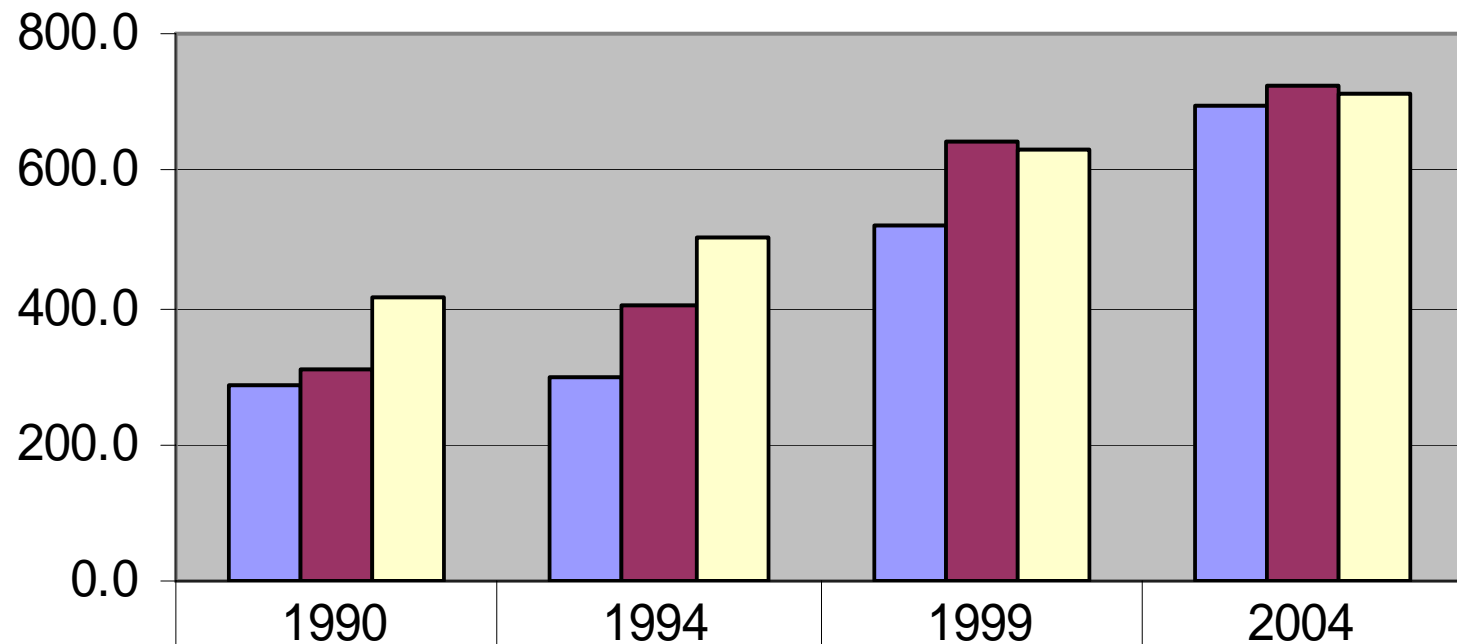


Some Socio Economic Factors Drive The Meat Sub-Sector in Egypt

Ibrahim Siddik Ali

Egypt: production of Different Sources of Animal protein



■ Fish (000 tons)

286.2

296.4

518.6

692.0

■ Poultry (000 ton)

311.4

405.6

644.8

721.2

■ Meat (000 Ton)

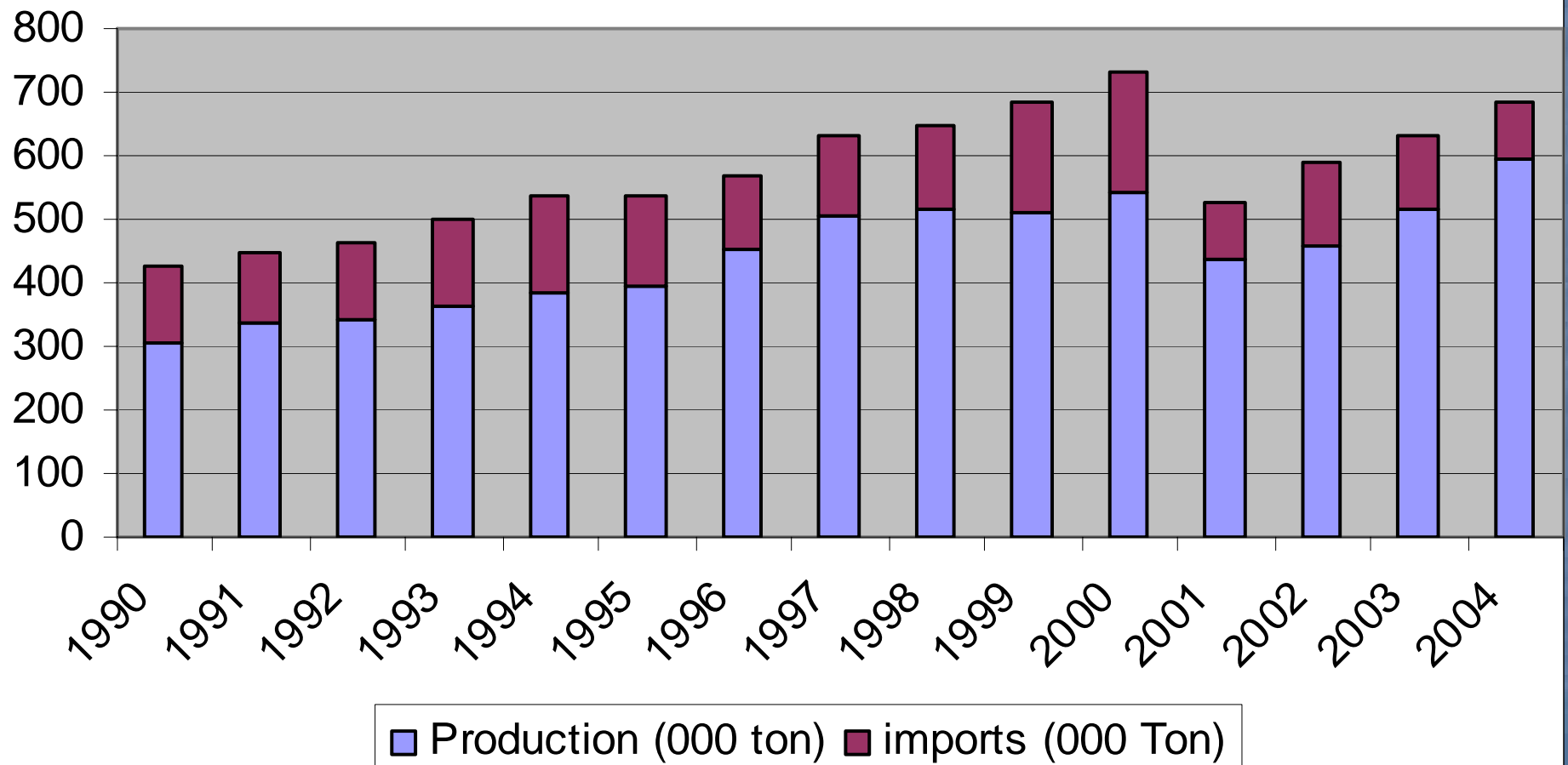
415.6

503.0

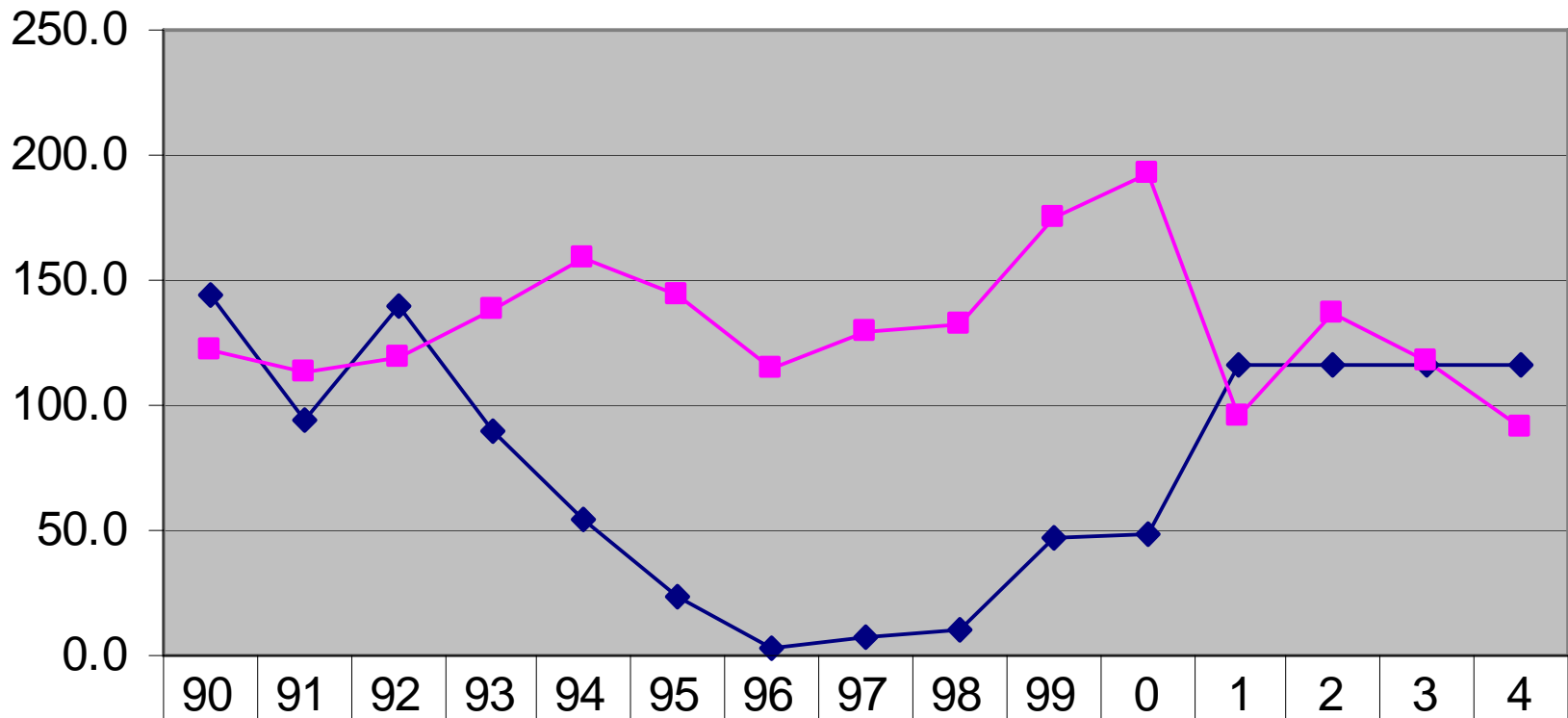
633.6

713.9

Egypt: Production and imports of Cattle Meat (Total Supply)

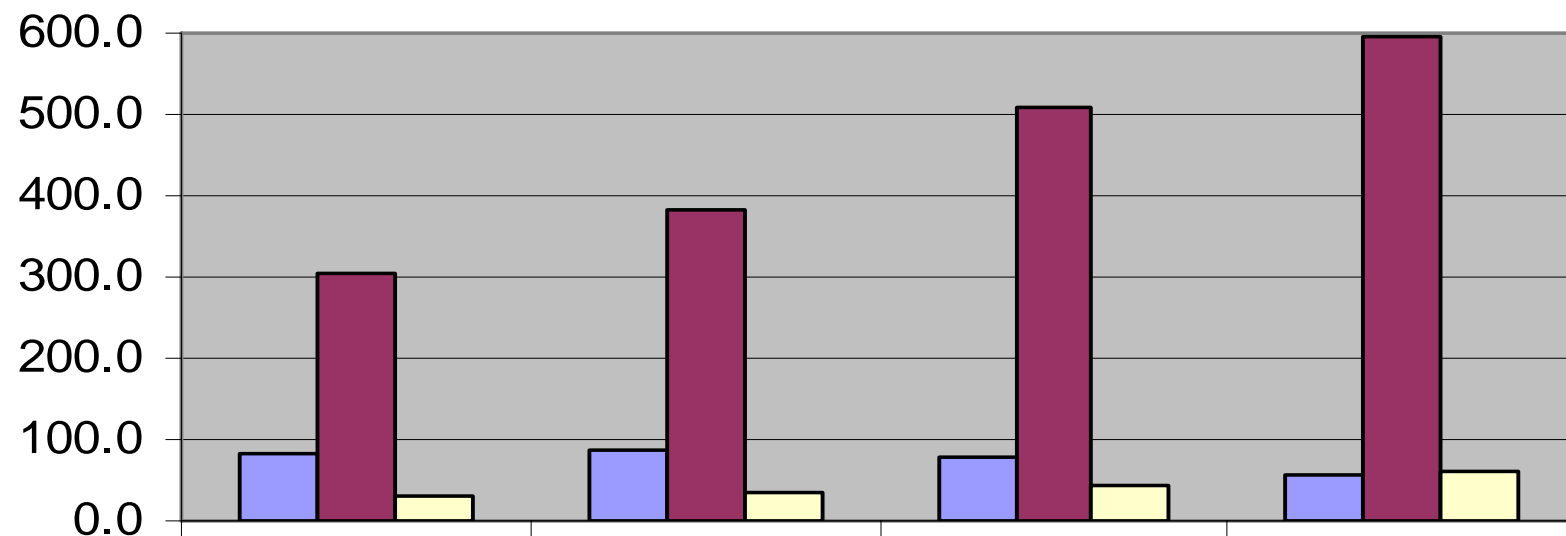


Egypt Imports Of Meat and Fish



◆ Fish	144.9	93.9	139.8	89.8	54.2	22.8	2.3	6.7	10.8	47.1	47.8	116.1	116.1	116.1	116.1
■ Red Meat	122.1	114.1	118.1	138.1	158.1	144.1	115.1	130.1	132.1	174.1	193.9	94.9	136.1	118.1	91.0

Egypt: Red Meat Production Structure



	1990	1994	1999	2004
Sheep & Goat	82.0	87.5	80.4	57.4
Bovin	304.0	382.2	509.7	593.8
Cammel	29.6	33.4	43.4	62.7

Major economic factors affecting the meat sub-sector

Demand Side

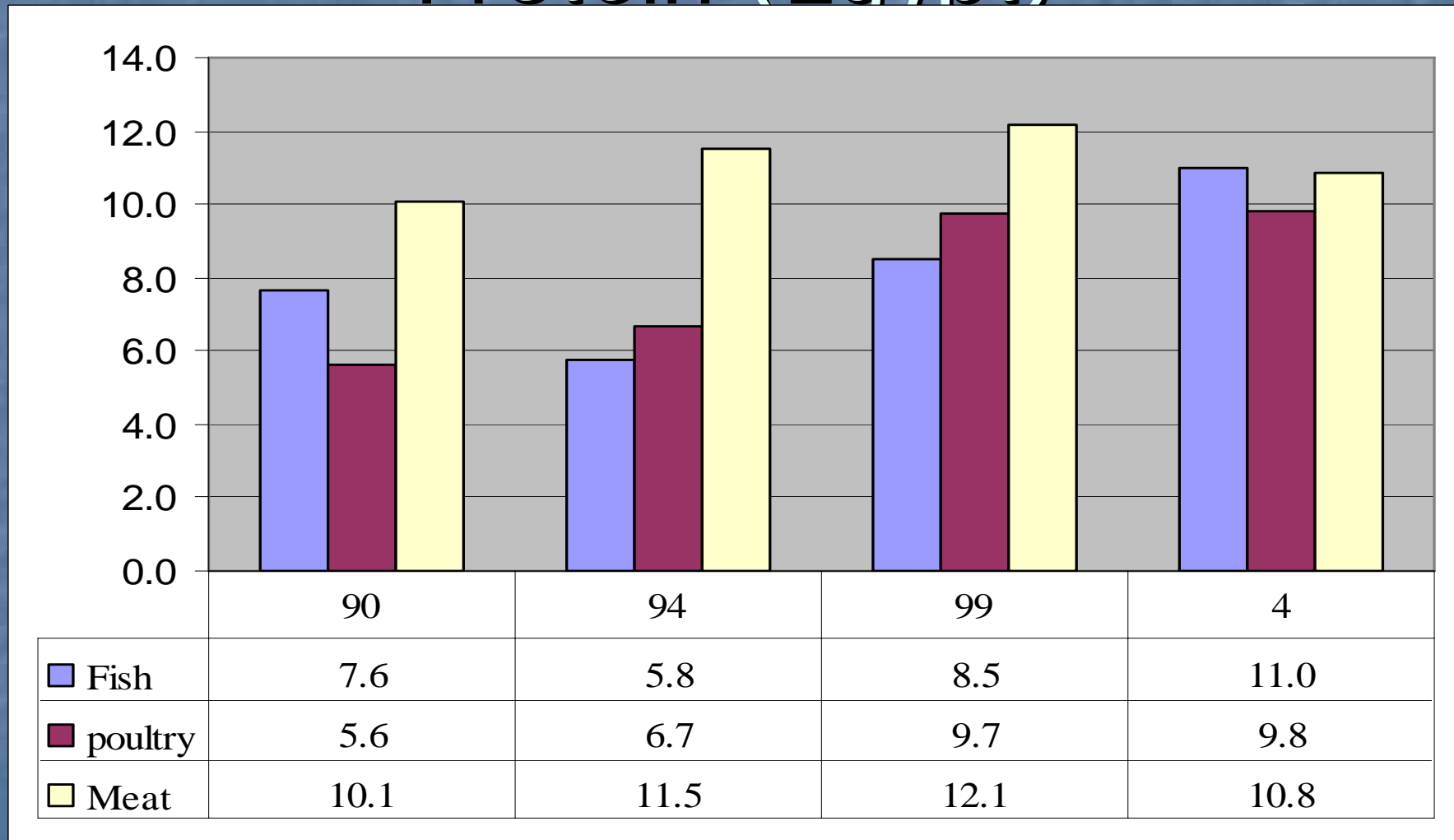
1. Demand Elasticity
2. Prices of Different Sources of Animal Protein
3. Per Capita Income
4. Demographic changes (urbanization)

Supply Side

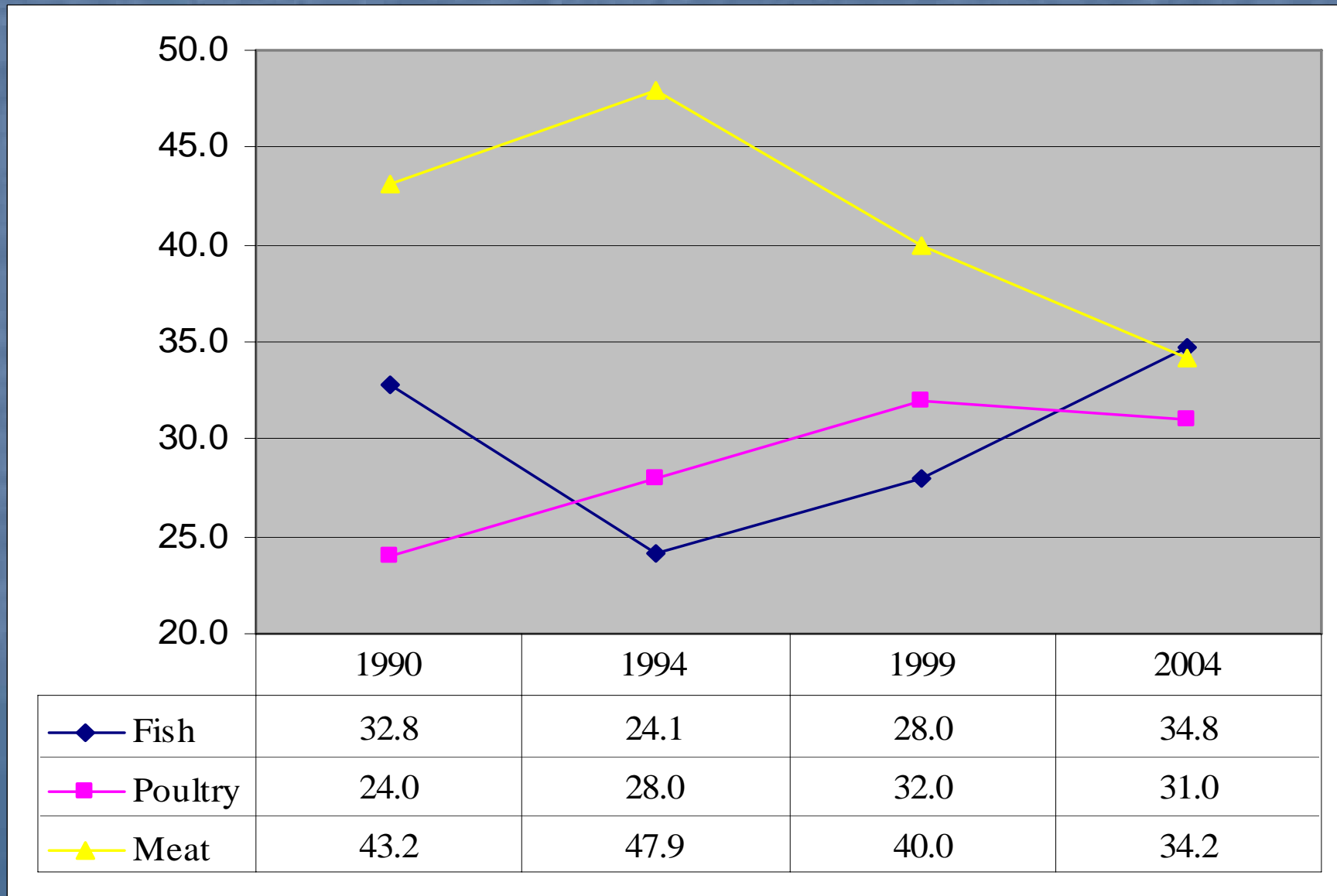
- R& D Policy
- Credit Policy
- Exchange Rate Policy
- Foreign Trade policy
- Agricultural Policy (Domestic Production Subsidy)
- Exporting Countries Subsidy Policy
- Prices of Raw Materials (Feeds & Concentrates)

Demand of Animal Protein

Per Capita Consumption of Animal Protein (Egypt)



Egypt: Structure of Consumption of Animal Protein

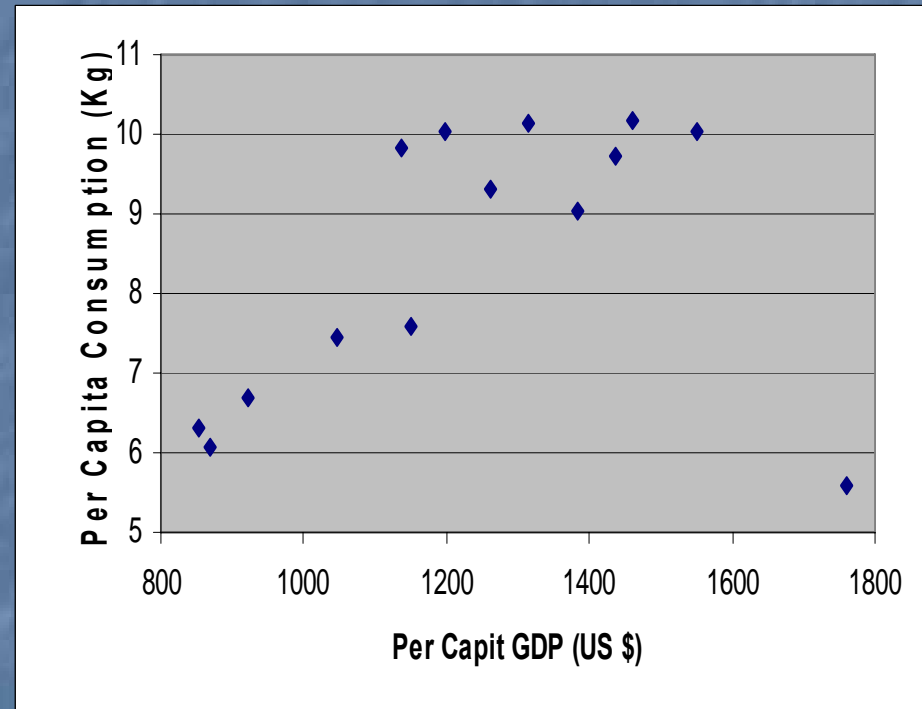
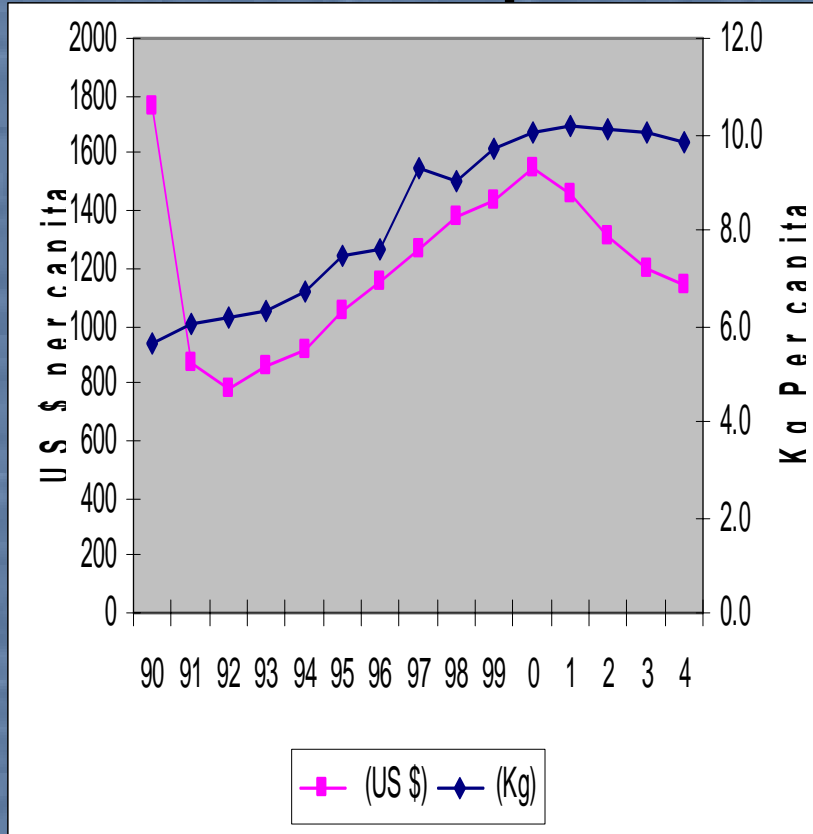


1. Demand and supply elasticity

- Demand elasticity = 1.5
Elastic Demand

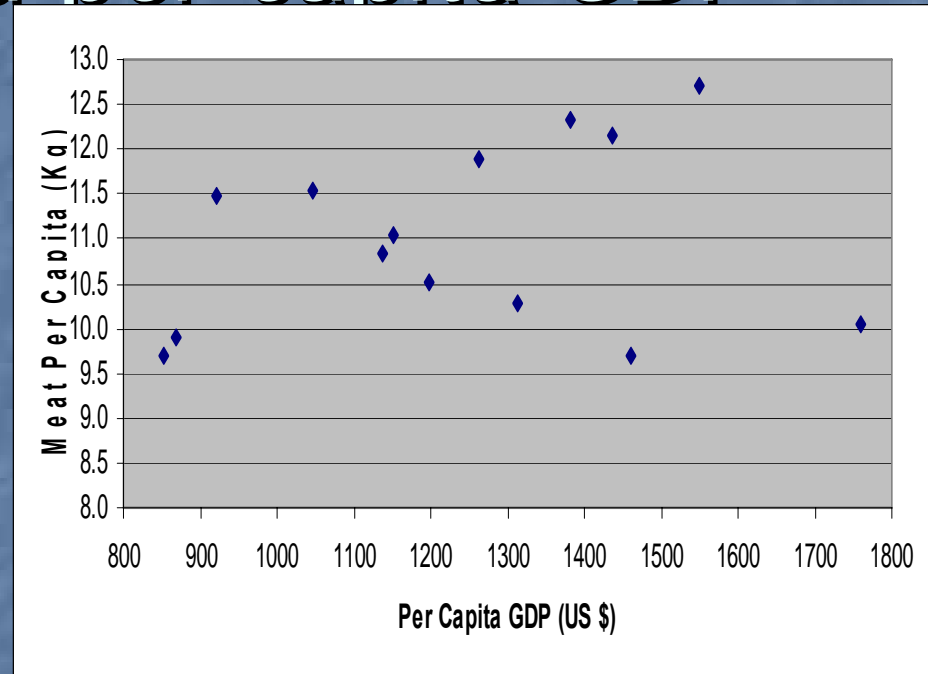
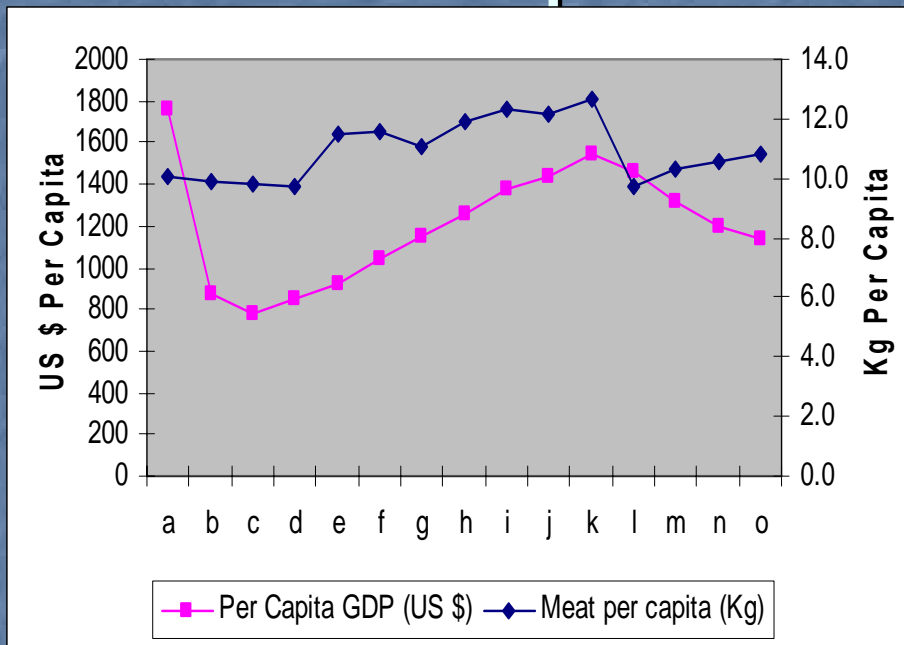
- Supply Elasticity = 0.6
Inelastic Supply

3. Relation between poultry per capita consumption and per capita GDP



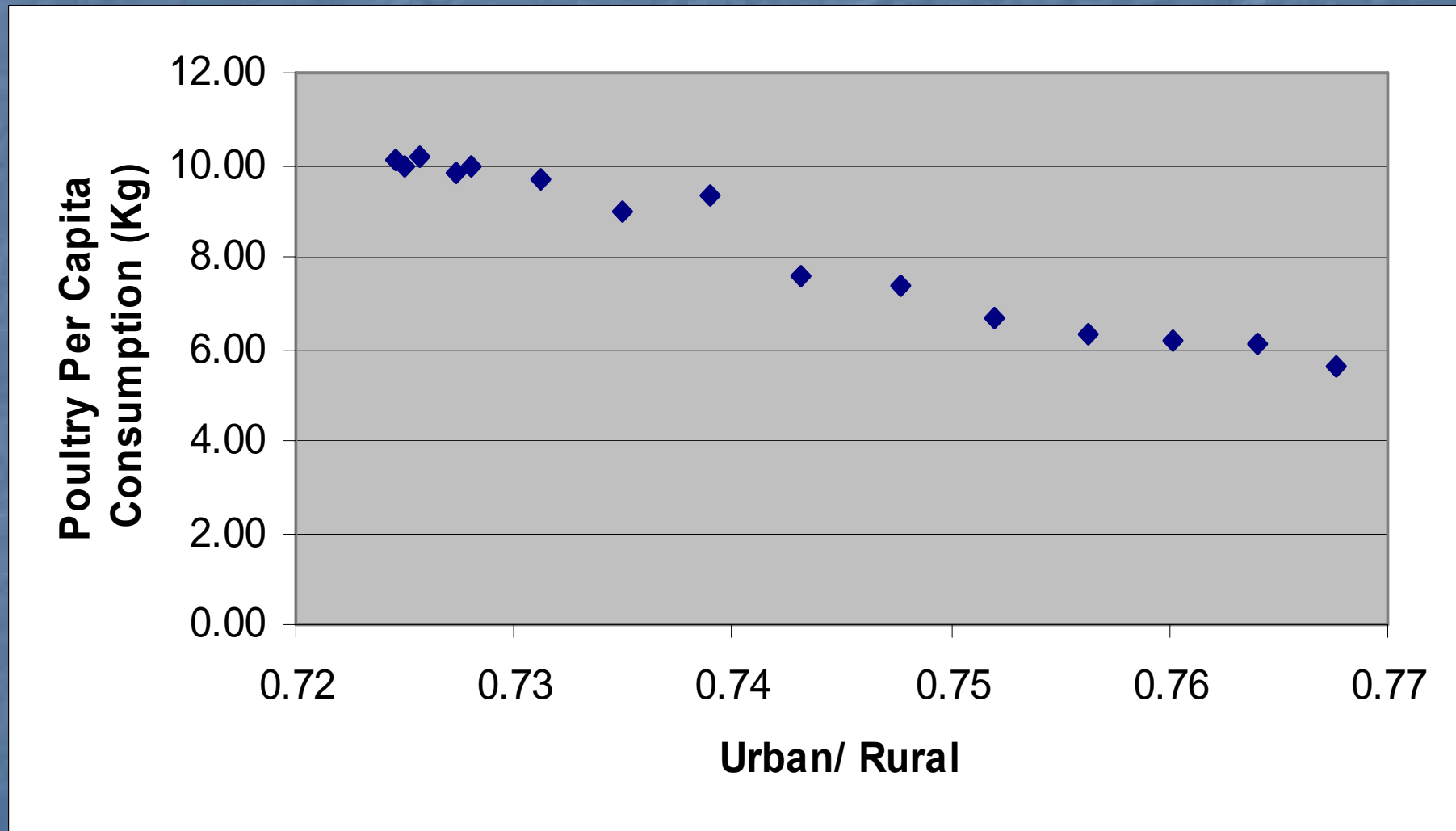
year	90	91	92	93	94	95	96	97	98	99	2000	1	2	3	4
Per Capita Gdp	1760	869	777	853	921	1064	1151	1263	1383	1436	1550	1461	1313	1197	1137
Per capita Consumption	5.6	6.1	6.2	6.3	6.7	7.4	7.6	9.3	9.0	9.7	10.0	10.2	10.1	10.0	9.8

Relation between red meat per capita consumption and per capita GDP



year	90	91	92	93	94	95	96	97	98	99	2000	1	2	3	4
Per Capita Gdp	1760	869	777	853	921	1064	1151	1263	1383	1436	1550	1461	1313	1197	1137
Per capita Consumption	10.1	9.9	9.8	9.7	11.5	11.5	11	11.9	12.3	12.1	12.7	9.7	10.3	10.5	10.8

4. Urbanization



Supply Side

1. R& D Policy

Benefit/ Cost Ratio on Livestock Investment in Different Regions

Region	Rate
Egypt	1.57
Africa	1.34- 1.37
Latin America	1.64
Europe	1.22 – 1.75
Australia	1.6- 1.9
USA	1.17 – 1.2
World	1.46 – 1.66

What is the rate of technological change in the livestock sector ?

- $Q = 3.4 e^{0.012t} K^{0.74} L^{0.26}$
(3.8) (4.7) (1.6)
 $r = 0.98$ $R^2 = 0.96$ $F = 354$

Capital elasticity = 0.74

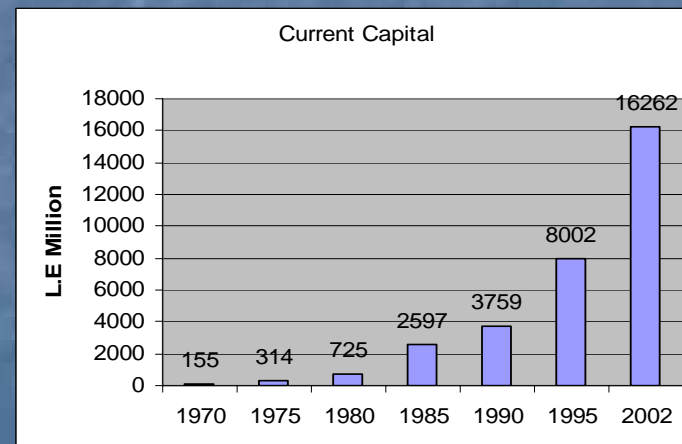
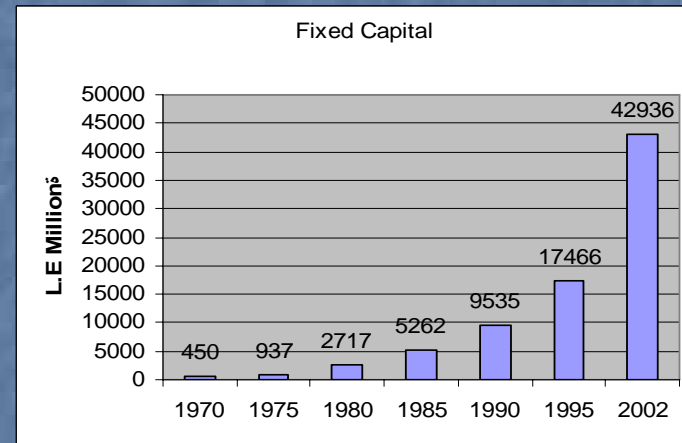
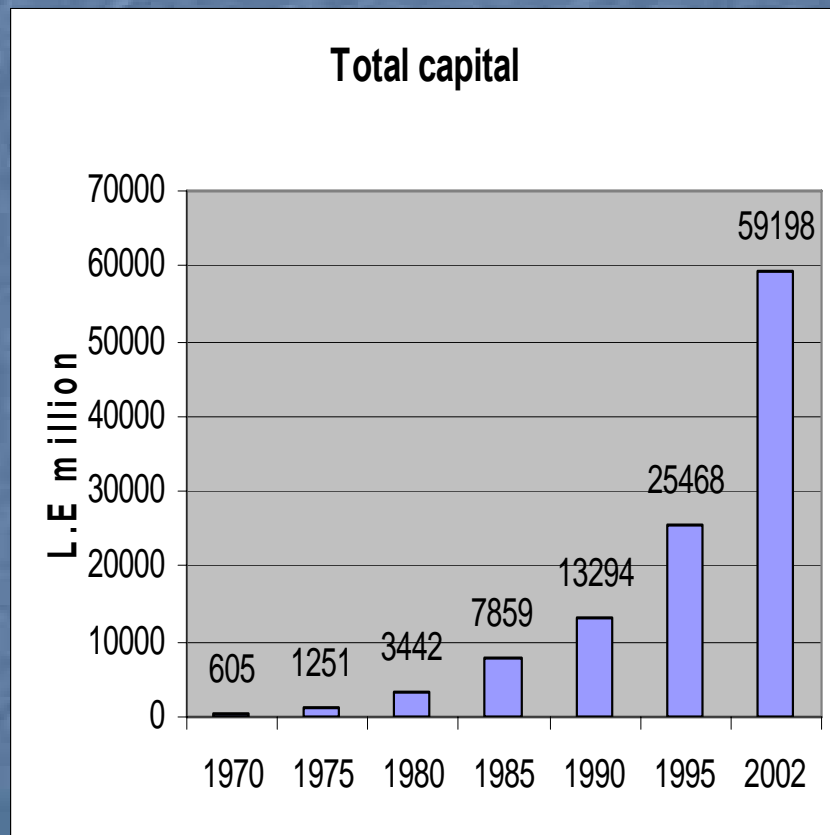
Labor elasticity = 0.26

Substitution elasticity = 1.29

Rate of Technological Change = 2.15%

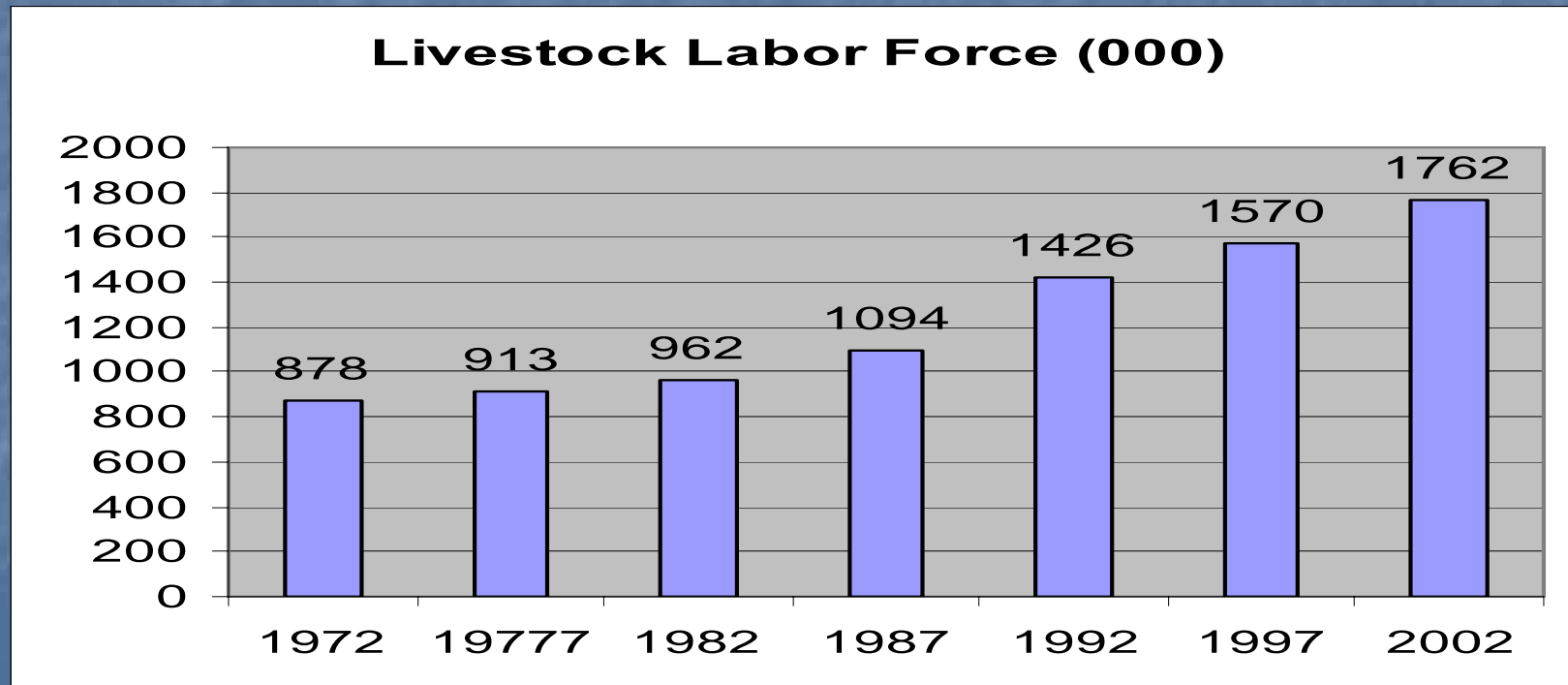
This rate does not take into consideration the changes in inventory resulted from promotion process (2.02% annually)

Capital estimates of the livestock sub-sector



Estimates of livestock labor force

- Total Agricultural Labor 5.7 million
- Crops production labor 3.9 million
- Fishing labor 44 thousand



R&D Investment in Livestock (L.E)

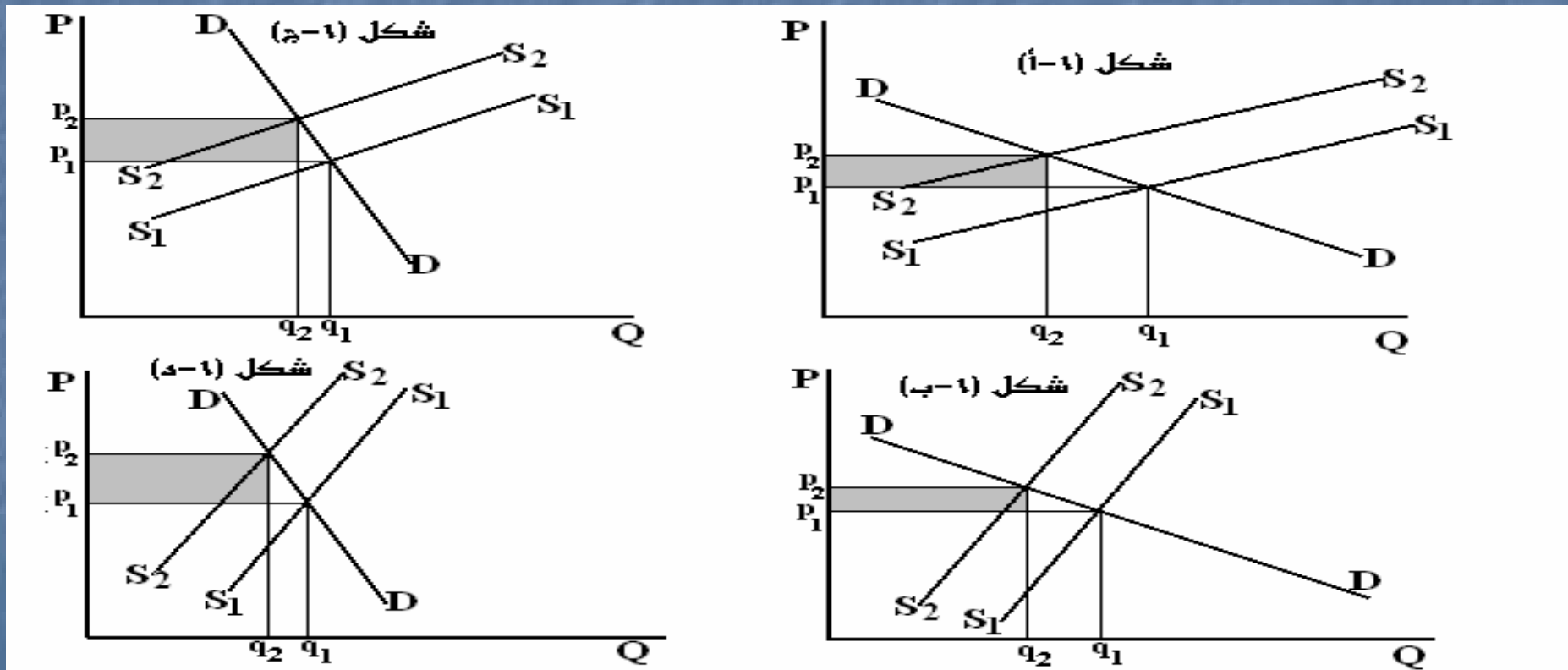
years	R&D Investment	Return of Technological change	Change in inventory	Total
Total	= US \$ 184.9 million during the whole period			

2. Credit Policy

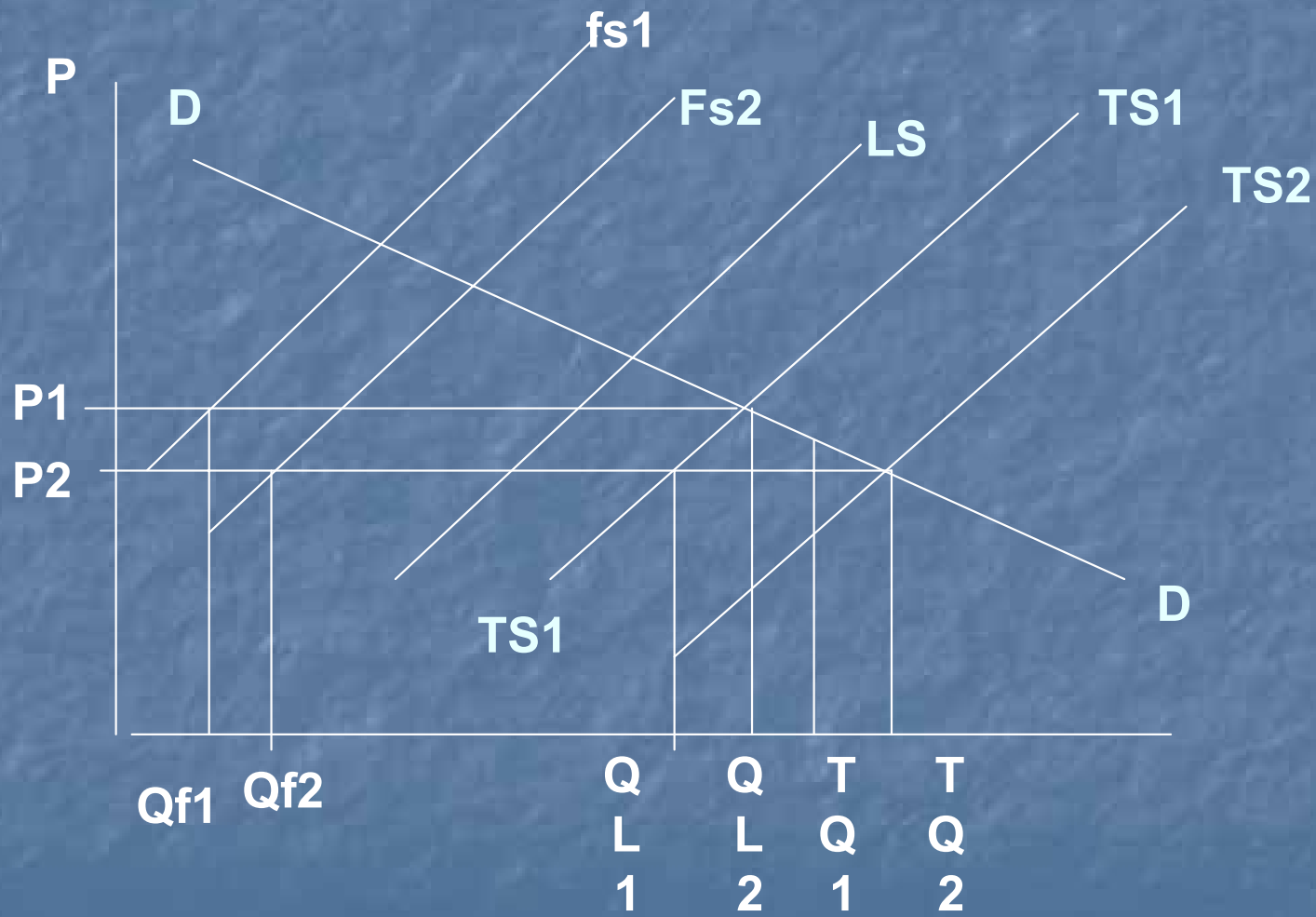
- **Determinate of Credit Demand:**
 - **Applied interest rates**
 - **Maximum Leverage ratio**
 - **Required Guarantees and collaterals**

3. Exchange rate policy

- Devaluation of exchange rate does not affect demand curve. It only shift the supply curve to the left.

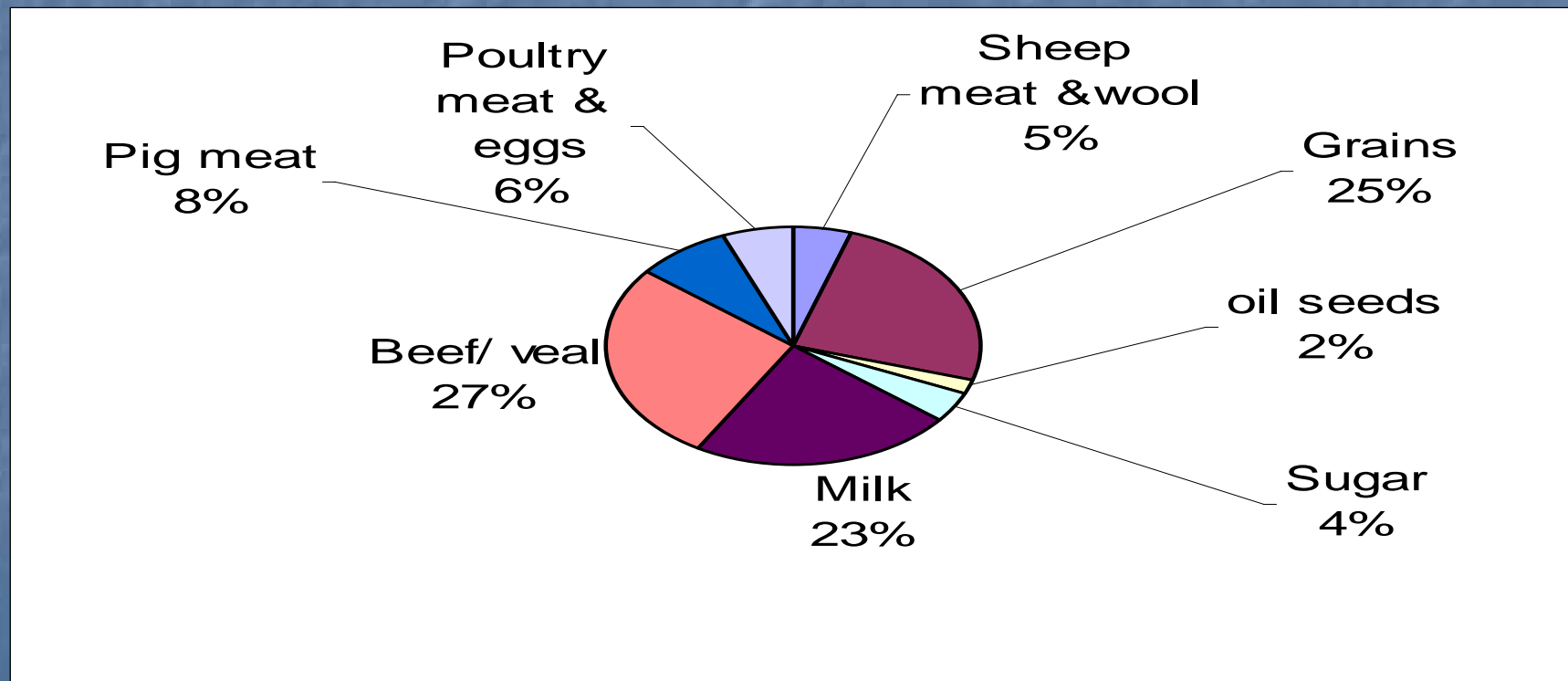


4. Exporting Countries polices (subsidy)



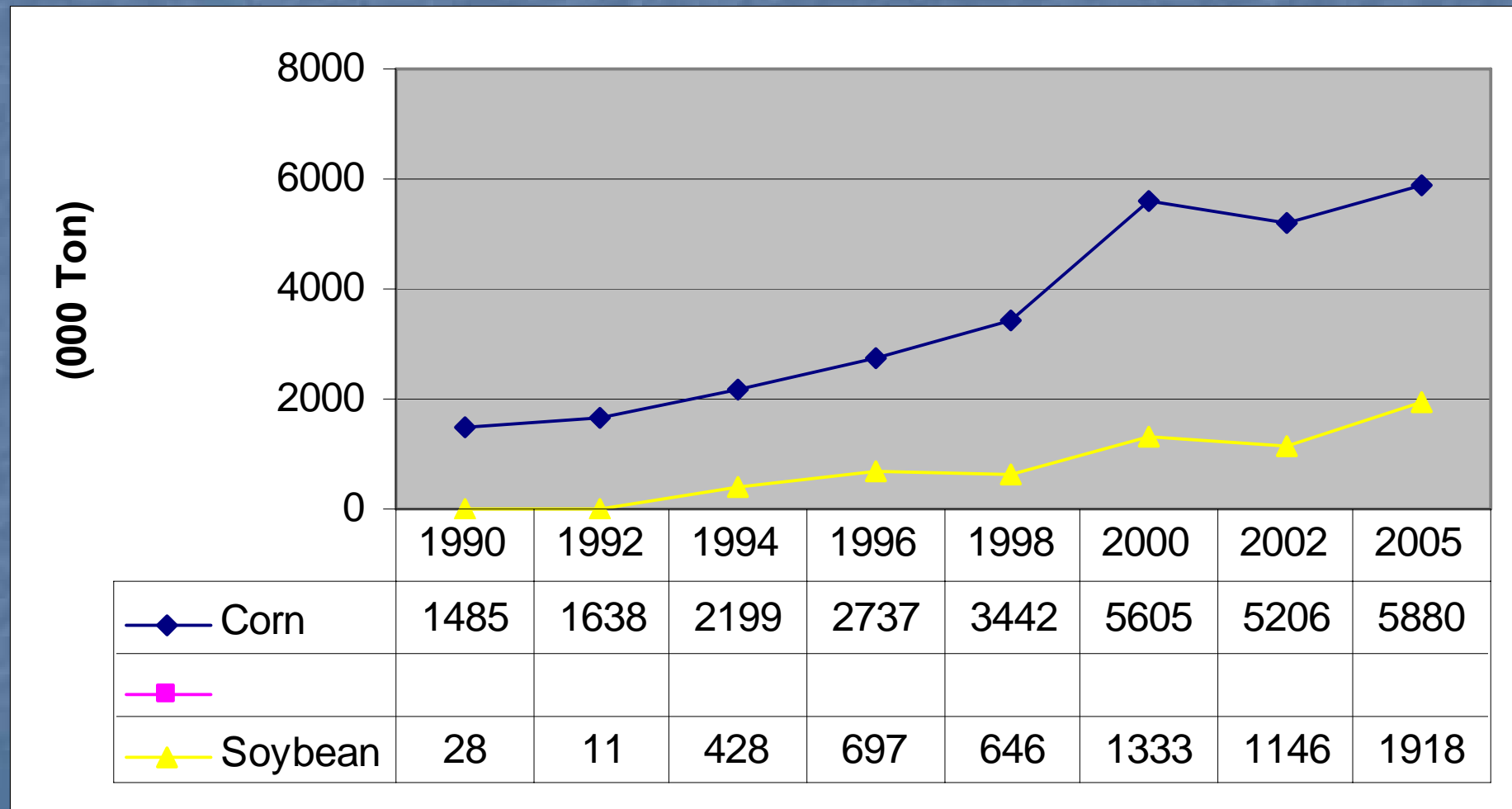
Types of subsidies provided by EU to Beef Producers

- Income support (other than compensatory payments)
- Storage aids
- Export subsidies

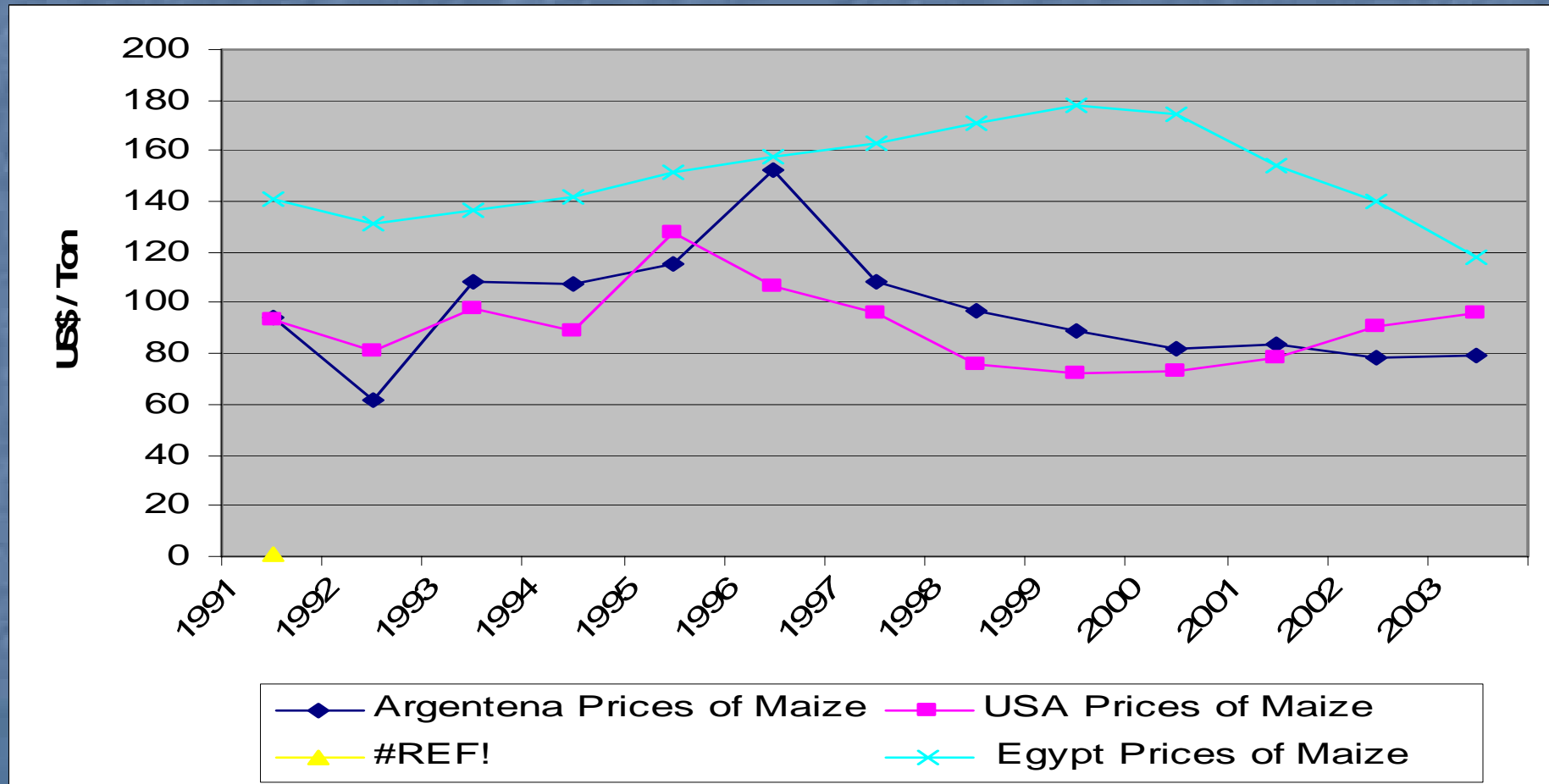


5. Prices of raw materials

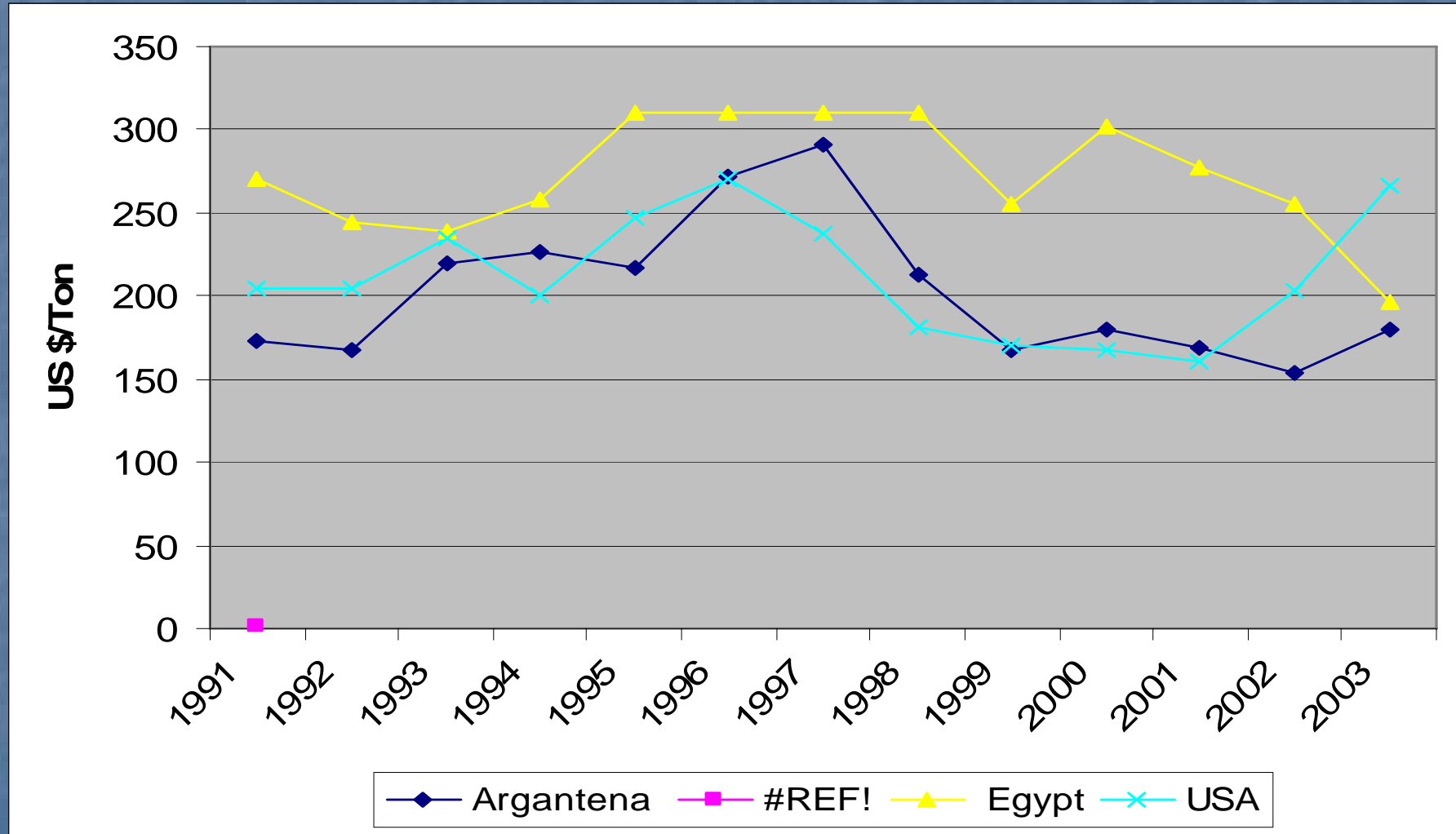
Egypt imports of corn and soybean



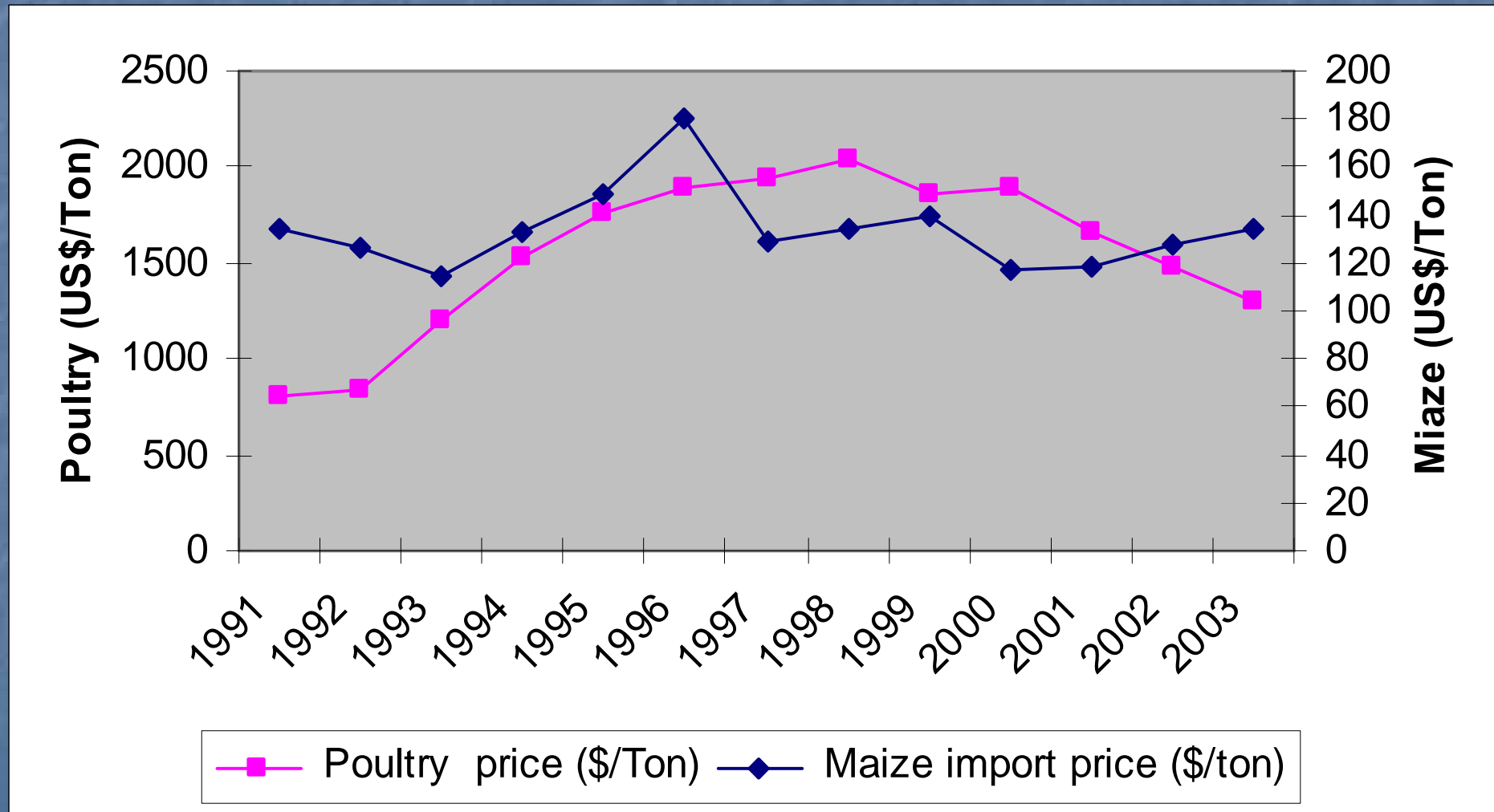
Prices of yellow corn



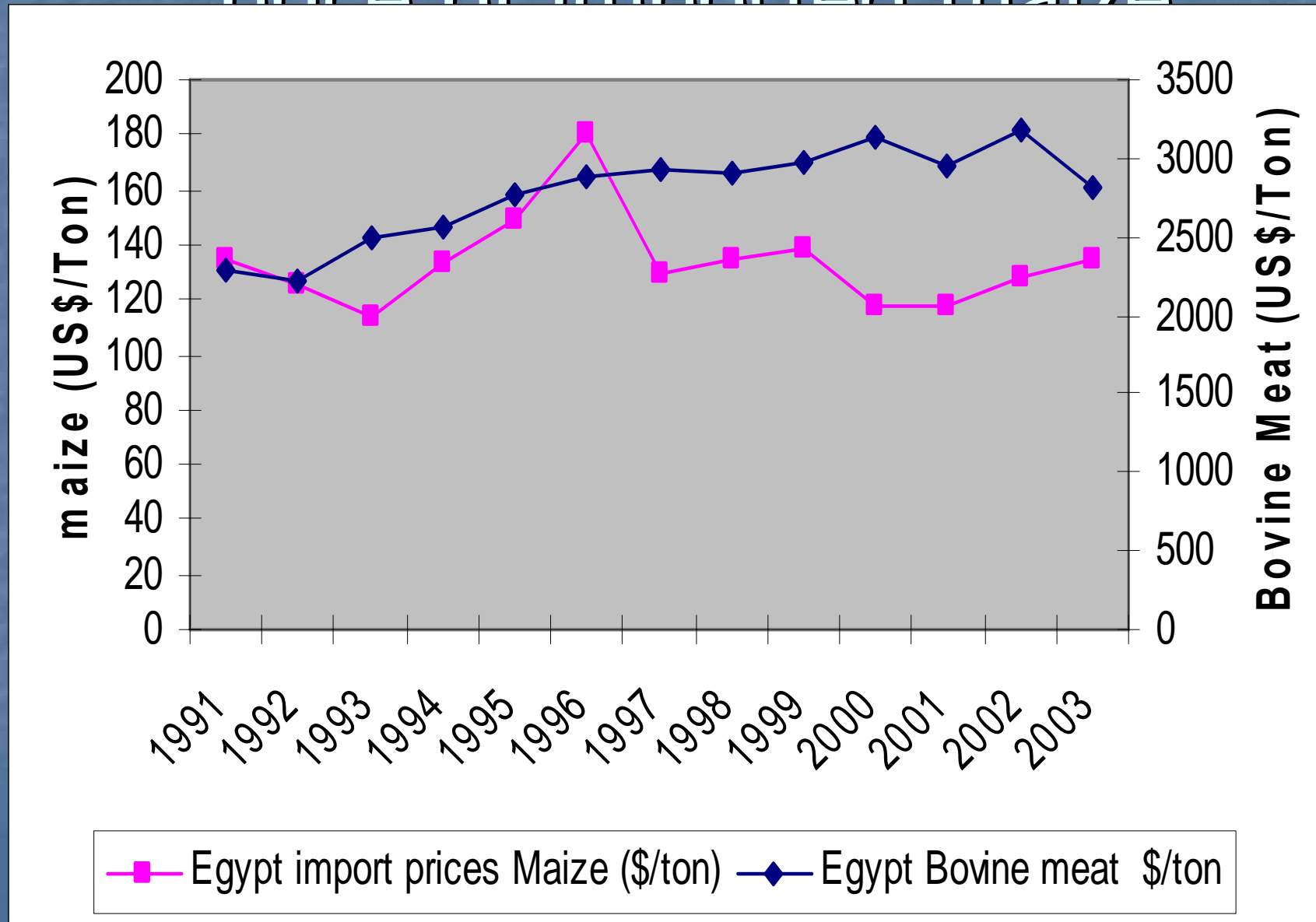
Prices of soybean



Relation between Poultry prices and imported maize prices



Relation between meat prices and price of imported maize



Relation between meat prices and local soybean prices

