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**An Annotated Description of  
The Engineering Industries  
Subsector**

Main Text and Appendices A - G

Prepared By

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## Table of Contents

Table of Tables	
List of Abbreviations	
Section I: Introduction . . . . .	1
Section II: An Overview of the Engineering Sub-Sector . . . . .	2
Section III: Conditions of Entry into Market . . . . .	9
3.1 Introduction . . . . .	9
3.2 Institutional Mechanisms . . . . .	10
3.3 Conditions of Entry . . . . .	11
3.4 Industrial Permit Procedures . . . . .	13
Section IV: Policy Environment . . . . .	16
4.1 Mandatory Price Controls . . . . .	16
4.2 Foreign Currency Allocation and Credit Policies. . . . .	21
4.3 Tariff and Trade Barrier Policies . . . . .	28
4.4 Export Promotion Policies and Incentives . . . . .	32
4.5 Public Vs. Private, Discrimination Assessment . . . . .	36
Section V: Pricing and Production Strategies of Firms . . . . .	39
5.1 Public and Private Sector Market Shares . . . . .	39
5.2 Product Mix and Pricing Strategy . . . . .	42
Section VI: Financial and Efficiency Analysis . . . . .	47
6.1 Public Sector Financial Analysis . . . . .	47
6.1.1 Balance Sheets . . . . .	47
6.1.2 Current Operations Accounts . . . . .	54
6.2 Efficiency Analysis . . . . .	55
6.2.1 Productivity . . . . .	56
6.2.2 Financial Ratios . . . . .	58
Appendix A: Major Private Sector Engineering Products	
Appendix B: Comparison of Law 43, Law 159, and Law 230	
Appendix C: List of Manufacturing Products Prohibited by GOFI, 1989	
Appendix D: Current Tariff Rates on Major Engineering Products	
Appendix E: List of Banned Imports	
Appendix F: Definition of Terms and Ratios	
Appendix G: Explanation of Layout and Computation of Worksheets	
Appendix H: Public Sector Financial Analysis Worksheets	

## Bibliography

## Table of Tables

Table 2.1	Manufacturing Output Classified by Activity and Ownership, 1985/86-1986/87.....	3
Table 2.2	Engineering Industries Output Classified by Sector, 1984/85-1986/87.....	4
Table 2.3	Civilian Production of Military Industries 1985/86-1986/87.....	5
Table 2.4	Profile of Public Sector Companies.....	5A
Table 3.1	Comparison of Public and Private Sector Indicators.....	10
Table 4.1	Engineering Industry Products Under Mandatory Pricing Systems.....	17
Table 4.2	Sale Price Indices for the Engineering Subsector and Sample Companies, 1982/83-1987/88.....	19
Table 4.3	Production and Export Subsidies by Recipient Sector, 1982/83-1987/88.....	20
Table 4.4	Approved Imports, Executed and Unexecuted Letters of Credit for the Engineering Subsector.....	23
Table 4.5	Interest Rate Structure May 1989.....	24
Table 4.6	Comparative Structure of Loans in MOI Sectors 1982/83-1987/88.....	26
Table 4.7	Loans Granted from Commercial and Investment Banks Classified by Sector, March 1987.....	28
Table 4.8	Tariff Rates Levied on Engineering Industry Commodities.....	31
Table 4.9	Exports As Percentage of GDP 1983/84 - 1986/87.....	32
Table 5.1	Consumer Durables Produced by Public Sector and Corresponding Major Private Sector Companies.....	38A
Table 5.2	Product Mix and Price Structure for Ideal's Refrigerators.....	43
Table 5.3	Sales of Koldair for 1986/87.....	44
Table 5.4	Pricing Profile of Locally Produced Refrigerators (1989).....	45
Table 5.5	Price Comparison for Local Air Conditions.....	46
Table 6.1	Balance Sheets of Nine Public Sector Companies.....	47A
Table 6.2	Component Balance Sheets of Nine Public Sector Companies.....	47B
Table 6.3	Current Operations Accounts of Nine Public Sector Companies.....	47C
Table 6.4	Component Current Operations Accounts of Nine Public Sector Companies.....	47D
Table 6.5	Development of Total Assets of Nine Public Sector Companies.....	47E
Table 6.6	Fixed Assets as Percent of Total Assets of Nine Public Sector Companies.....	48A
Table 6.7	Total Inventory as Percent of Total Assets of Nine Public Sector Companies.....	49A

Table 6.8	Raw Materials and Finished Goods as Percent of Total Assets of Nine Public Sector Companies.....	49B
Table 6.9	Total Accounts Receivable as Percent of Total Assets of Nine Public Sector Companies.....	50A
Table 6.10	Cash on Hand and in Bank as Percent of Total Assets of Nine Public Sector Companies.....	50B
Table 6.11	Net Worth as Percent of Total Assets of Nine Public Sector Companies.....	51A
Table 6.12	Bank Credit as Percent of Total Assets of Nine Public Sector Companies.....	52A
Table 6.13	Total Accounts Payable as Percent of Total Assets of Nine Public Sector Companies.....	53A
Table 6.14	Sales Revenues of Nine Public Sector Companies.....	54A
Table 6.15	Total Wages as Percent of Sales of Nine Public Sector Companies.....	54B
Table 6.16	Material Inputs as Percent of Sales of Nine Public Sector Companies.....	54C
Table 6.17	After-Tax Profit as Percent of Sales of Nine Public Sector Companies.....	55A
Table 6.18	Productivity Analysis of Nine Public Sector Companies.....	56A
Table 6.19	Labor Productivity of Nine Public Sector Companies.....	56B
Table 6.20	Average Income per Worker in Nine Public Sector Companies.....	57A
Table 6.21	Capital/Labor Ratios of Nine Public Sector Companies.....	57B
Table 6.22	Export Performance of Nine Public Sector Companies.....	57C
Table 6.23	Ration Analysis of Nine Public Sector Companies.....	58A
Table 6.24	Acid Test of Nine Public Sector Companies.....	58B
Table 6.25	Debt/Total Assets Ratios of Nine Public Sector Companies.....	59A
Table 6.26	Inventory Turnovers of Nine Public Sector Companies.....	59B
Table 6.27	Fixed Assets Turnovers of Nine Public Sector Companies.....	59C
Table 6.28	Du Pont Ratios of Nine Public Sector Companies.....	59D

## Section I

### Introduction

This report is a description of the engineering industries in Egypt with an underlying emphasis on the engineering industries engaged in the production of consumer durables, including that of electronics. The term "description" entails a discussion of the salient features of several issues such as the structure of the industry, the policy environment in which it operates, and the prevailing conditions of entry. Furthermore, the term "description" implies a certain level of disaggregation, permitting the dichotomy of public vs. private sector, product mix regulations, issues of sales/profitability, and financial indicators to be thoroughly studied.

The report consists of six sections. Following this introduction, section two is a sectoral overview. The third section is concerned with conditions of entry into the market which is followed by the policy environment in section four. Section five reviews price and production strategies of firms, and section six reviews the financial and efficiency performance. In some sections micro analysis on the company level seemed imperative. A total of nine public sector companies were taken as case studies. These companies are: Ideal, Koldair, Sabi, Cairo Metals, Alexandria Metals, Nasr TV, Telemisr, Philips and EL TRAMCO.

The data base used is largely dependent on primary sources. For the public sector, financial information was collected from the Ministry of Industry. Particularly in issues related to policy measures, a host of field visits were conducted to the companies in question as well as several authorities to collect first hand accounts of their impact. Secondary sources e.g reports, semi-official statistical abstracts, were also used after due verification and updating. The literature of H. Handoussa, the IBRD [1989], and the IMF [1988] was frequently quoted.

## Section II

### An Overview of the Engineering Sub-Sector

The role of the secondary sector in the process of economic development in Egypt cannot be underestimated. In 1983/84 it contributed over 31% of national income, 20% of employment, and 80% of commodity exports [CAPMAS, 1988]. Manufacturing was certainly the predominant component of this sector as it contributed 14% of national income, 13% of employment, and 17% of exports. Furthermore, investment in manufacturing has been substantial. Between 1977 and 1987, a period in which two five-year plans were implemented, the manufacturing share of investment amounted to LE 12.7 billion or 25% of the plans' total. More important, the government expects manufacturing to play a leading role in overcoming the supply rigidities in other sectors, providing adequate employment opportunities, and, through a mix of export promotion and import substitution industries, generating much needed foreign exchange.

The structure of Egyptian manufacturing is comprised of four largely independent sectors [Handoussa, 1988, p. 9]. They are: the public enterprises sector, the traditional formal private sector (establishments with ten or more employees), the new private enterprise sector (Law 43 and Law 159 companies), and the small-scale enterprise sector (establishments of less than ten employees). Handoussa [1988, p. 10] describes the size and structure of the manufacturing industries in the following terms:

In 1983/84, the state-owned sector consisted of some 200 large enterprises operating 936 establishments and employing about 724 thousand workers. The formal private sector consisted of 4,729 establishments and employed about 160 thousand workers. It would seem that the new enterprise sector was not fully covered by the Census of Industrial Production and data from the Investment Authority reported the operation of 305 Law 43 companies in the manufacturing sector by 1986. However, the employment level generated by this group is not significant at less than 30 thousand employees.

In most manufacturing subsectors, it was the public sector that played the most active role, with almost 75% of total manufacturing output. As clear

from table 2.1, some of the country's major subsectors were almost exclusively the public sector's domain. In 1986/87, the public sector share of total production was never below 80%, whether in spinning and weaving, food and beverages, chemicals, or base metals production. The existence of the private sector was only significant in the relatively minor branches of wood and leather products.

Table 2.1 Manufacturing Output Classified by Activity and Ownership, 1985/86 - 1986/87

(LE millions)

	Total Production		Private Sector		Public Sector	
	85/86	86/87	85/86	86/87	85/86	86/87
Spinning and Weaving	2605	2765	548	554	2057	2211
Food and Beverages*	3391	4459	773	824	2618	3635
Base Metals**	2388	2487	427	422	1961	2065
Chemical Industries	1030	1312	56	60	974	1252
Leather Products	765	778	741	752	24	26
Wood Products	508	545	486	519	22	26
Building Materials	222	252	135	152	87	100
<b>Total Manufacturing</b>	<b>10909</b>	<b>12598</b>	<b>3166</b>	<b>3283</b>	<b>7743</b>	<b>9315</b>

+ Excluding PV pharmaceuticals and rice production

\*\* Inclusive of engineering, metal, electric, and electronic industries but excluding the civilian production of the military factories.

Source: FEI, 1989, p. 15,16.

When separated from the base metals aggregate in table 2.1, the engineering subsector is of relatively medium size in comparison to the sectors of spinning/weaving and food and beverages. Its relative size was around 17%-19% of total manufacturing output. Over the period 1984/85-1986/87 the public sector contributed 85% of engineering industry output, as shown in table 2.2 [FEI, p. 67, 91].

Table 2.2 Engineering Industries Output Classified  
by Sector, 1984/85 - 1986/87.

(LE 000s)

	Public Sector	Private Sector	Total	PS Share
1984/85	1,277,894	190,000	1,467,894	87%
1985/86	1,344,631	251,000	1,595,631	84%
1986/87	1,376,950	240,000	1,616,950	85%

Source: FEI, p. 67,91.

Private sector engineering industries produce a wide range of products, mainly commercial transport equipment, electric cables, consumer durables, and construction metal works. Other products like locks, metal works/machining, electrical and sanitary fittings are relegated to secondary importance. Appendix A lists all private sector engineering products produced during 1984/85-1986/87 with a value of more than LE 500,000.

Singling out the public sector engineering industries is fairly simple since almost all are controlled by the Ministry of Industry. The exception is the civilian sections of the military factories under the control of the Ministry of Military Production. Renowned for their technical abilities, a total of 16 firms produced over LE 300 million of civilian output in fiscal year 1986/1987<sup>1</sup>. Approximately 17% of this volume was in the engineering sector (the aggregate of engineering products, electrical equipment, and transport equipment) although the production of base metals (i.e metal work and machining) and non-electric machinery were certainly the predominant activities (see table 2.3). The value of the military factory products relevant to the engineering subsector in fiscal year 1985/1986 did not exceed LE 30 million. Most of this production was television sets (LE 18 million), refrigerators/deep freezers (LE 5 million), air conditioners (LE 700

<sup>1</sup> An excellent exposition of the civilian production of the military factories is to be found in the Annual Yearbook of the Federation of the Egyptian Industries [1988, Section 2, p. 96]. An accurate listing of all military firms is contained in the "Companies and Authorities Guide" [AlAham, 1988, p. 83].

thousand), and office fans (LE 5 million). Not ignoring their potential, excluding the military firms from the study will not render it inaccurate.

Table 2.3 Civilian Production of Military Industries 1985/86 - 1986/87 (LE millions)

	85/86	86/87
Base Metals	127.0	131.9
Non-electric Machinery	95.3	99.4
Electric Products	43.1	48.0
Chemical Products	25.9	31.7
Transport Equipment	5.6	6.1
Engineering Industries	0.1	0.1
<b>Total</b>	<b>297.0</b>	<b>317.2</b>

Source: FEI, 1989, p. 18.

Among those economic entities under the control of the MOI, in fiscal year 1987/88, the engineering subsector comprised 19 firms with a total output of LE 1.6 billion and an employment level of 66.7 thousand. In relation to other manufacturing subsectors it is the third largest, in terms of output and employment, after the spinning/weaving and the food and beverages subsectors. Its total production was largely dominated by the manufacture of transport equipment represented mainly by NASCO, SEMAF, and ELTRAMCO. This was followed by consumer durables represented by Ideal, Koldair, Telemisr, Phillips, and, to a lesser degree, Alexandria Metals. The subsector also comprised smaller units producing a wide array of engineering goods such as boilers (Egyptian Boilers), steel construction works (STELECO) and cables (Egyptian Cables).

During 1982/83 - 1987/88, engineering subsector production showed a growth in current value terms of an average compound rate of 11%. Sales followed suit with an annual rate of 9%. Though export figures grew by 13%, and their share of total sales increased during the period in question from 13.5% to 16.2%, they were overwhelmingly dominated by NASCO and IDEAL with their foreign currency local sales system (i.e. local exports). Only a few other companies (e.g. Koldair, Telemisr, Phillips) showed foreign export capabilities worthy of investigation. (See table 2.4 for a presentation of the salient features of

the engineering public subsector companies for the two years 1982/83 and 1987/88).

It is noteworthy that during this period employment figures for the subsector did not increase beyond 67,000, a strong indication that the policies to control overemployment in both government and the public sector are achieving some success [see Hansen and Radwan, 1982, p. 45]. With the increase in output figures noted above, a result of this policy was an improvement in labour productivity levels. Although improved profitability levels were to be expected, they were not observed over the period. On the contrary, the sub-sector has shown a deficit of LE 3.3 million, which, if related to net worth (capital, reserves and provisions) gives a negative growth of 0.4%. As indicated in table 2.4, this is a marked deterioration from the 1982/83 level of 8.7%. Any other result was unlikely for a sector of which two companies (Alexandria Shipbuilding and Ideal) were running a deficit of LE 50 million. However, if the engineering subsector companies were regrouped into surplus generating and deficit generating entities, the former group would reflect a return on net worth of 16.9% and 12.7% in 1982/83 and 1987/88 respectively. This discrepancy implies that amid the general loss a case by case analysis is necessary. A financial and productivity analysis of nine leading public sector engineering industries firms is presented in section 6.

As shown in table 2.2 above, the private sector's relative share of the engineering industries was around 15% over the period 1984/85 - 1986/87. Aggregate data for Law 159 companies are not readily available, and in any case it is the Law 43/1974 companies which are the new additions to the engineering subsector in Egypt. Up to June 1989, a total of 82 firms were licensed to operate with targeted figures of LE 1.1 billion for capital investment, 12,000 employees, and an output of LE 1.5 billion [Investment Authority, 1989]. Of this total, 38 entities are in actual operation with a total capital of LE 131 million, 5,000 employees, and an output of LE 158 million. At this time another 19 entities are currently being established. The range of products is quite diversified and though it includes traditional transport equipment manufacturing (General Motors/Egypt), electric household equipment (Miraco and Kiriaz), electronic products (Egyptian Transformers),

Engineering Industries Subsector Study

Table 2.4.

Profile of Public Sector Companies

Company	Product	Production		PE CENT CH NGE	SALES		PERCENT		EXPORTS		PERCENT		LABOUR		PE CENT		Surplus		Net Worth		RPN		
		1982/83 (LE 000's)	1987/88		1982/83 (LE 000's)	1987/88	CHANGE	1982/83 (LE 000's)	1987/88	CHANGE	1982/83 (LE 000's)	1987/88	CHANGE	1982/83	1987/88	CHANGE	1982/83 (LE 000's)	1987/88	CHANGE	1982/83 (LE 000's)	1987/88	1982/83	1987/88
NASCO	Transport Equipment	239716	433940	0.10	263762	427735	0.08	33250	175196	0.32	11666	11905	0.00	-16734	2999	25243	102012	(19.6)	2.8				
Iceai	Electrical Household Hardware	111644	279625	0.17	110940	267473	0.16	25059	51376	0.13	2430	9573	0.02	16514	-11543	62556	116236	24.1	(9.9)				
Alex. Shipbuilding	Maritime Transport Equip.	21149	37665	0.10	32333	24236	(0.07)	3812	499	(0.22)	6524	5747	(0.02)	1542	-39571	51354	67021	3.0	(57.5)				
Egt. Cables	Electrical Cables	76457	172212	0.15	77260	172553	0.14	2544	8960	0.23	2375	3223	0.02	12309	37813	62562	120139	26.3	31.5				
Telewizr	Electronic Household Equip.	97338	103673	0.01	91415	102659	0.02	37091	452	(0.52)	2490	2970	0.03	12811	530	29046	32093	44.1	1.7				
Philips	Electronic Household Equip.	64601	80173	0.04	51124	76868	0.07	11739	159	(0.51)	3197	3633	0.02	2942	-3424	30622	42164	9.6	(8.1)				
Masr TV	Electronic Household Equip.	64032	94424	0.07	55103	89445	0.05	9863	0	(1.00)	2526	2552	0.00)	5780	671	23923	41127	24.1	1.6				
SEMAF	Railway stock	45204	76203	0.09	45204	74469	0.09	0	0	0.00	3030	3151	0.01	8813	11669	34639	58142	25.5	20.1				
ELTRAMCO	Transport Equip.	30265	65295	0.14	32539	61941	0.11	0	427	n.a	2345	3400	0.02	571	3286	25709	33654	2.2	9.8				
SABI	Locks and Padlocks	13866	27259	0.12	14258	26106	0.11	19	195	0.47	2360	2246	(0.01)	0	-232	15501	24571	0.0	(3.4)				
STELECO	Steel Structure fittings	17963	27112	0.07	24327	37825	0.08	0	0	0.00	3130	2795	(0.02)	0	-1124	17549	23663	0.0	(4.8)				
METALCO	Steel Structure fittings	27439	29879	0.01	25386	32395	0.03	0	0	0.00	3534	3767	0.01	196	-2522	11213	18544	1.7	(14.3)				
Ind. Fittings	Steel Construction Services	8628	32296	0.25	9139	32347	0.23	466	12239	0.72	2500	1774	(0.06)	59	0	9500	17455	0.6	0.0				
Cairo Metals	Non-electrical Household Hardware	15718	25131	0.02	15391	21572	0.06	0	0	0.00	2372	3025	0.01	-2266	-1453	24226	52335	(5.4)	(2.2)				
Alex. Metals	Non-electrical Household Hardware	7783	37971	0.30	7596	33075	0.28	0	0	0.00	1640	2117	0.02	-124	-1250	15261	24373	(1.2)	(7.5)				
Koldair	Electrical Household Equip.	16719	43946	0.17	12270	43223	0.16	774	4741	0.35	2689	2345	(0.02)	-269	403	12059	18423	(2.2)	2.2				
Misr Engineering	Transport Equip.	11511	23403	0.13	12356	27107	0.13	0	326	0.00	1549	1523	0.00	709	-113	10213	12539	5.9	(0.9)				
YAYAT	Leaf and Coil Springs	6314	11224	0.11	6450	9151	0.06	174	0	(1.00)	216	774	(0.01)	121	52	7010	11116	2.6	0.5				
Egt. Boilers	Steam Boilers	4147	10003	0.15	4218	11551	0.12	0	253	n.a	253	350	0.02	456	764	10109	9753	4.5	7.8				
Canaltron	Electronic Household Equip.	1566	0	n.a	2145	n.a	n.a	0	n.a	n.a	338	n.a	n.a	-1236	n.a	7403	n.a	(16.7)	n.a				
Totals & Averages		822120	1514535	0.11	922222	1572491	0.09	124797	254833	0.13	55244	57750	0.00	42199	-3317	551774	830259	8.7	(0.4)				

104

and mechanical products (Schindler and Marriott & Scott), it also comprises non-traditional engineering industries worthy of mention. Industries involved in solar energy exploitation, electronic copying and reproduction (Xerox), fire control equipment (Bavaria), and precision equipment (Jupiter) are examples.

Between 1984 and 1987, according to sales figures, Law 43/1974 engineering industries firms grew over the period by an annual compound rate of over 40%. Employment grew by 15%, and net worth by 35%<sup>2</sup>. There is a concentration of activities around seven firms which in 1987 contributed 80% of Law 43/74 companies' sales, 72% of employment, and 70% of net worth. This growth of sales, however, was not matched by an increase in surplus, which grew by only 0.4% annually. In view of the increased net worth, the resulting reduction on its return from 13% in 1984 to 5.3% in 1987 is to be expected. Nevertheless, it should be taken into consideration that a) a considerable number of firms are still in their developmental period and are operating below their potential, and b) most of the large firms are still demonstrating a high return on their net worth.

Apart from following the current investment pattern, it is difficult to forecast the future of the engineering industries in Egypt. As mentioned above, the Government of Egypt has allocated 25% of total investment in the last decade to manufacturing. The public sector has provided roughly 60% of the total, leaving private local and foreign investors to contribute the balance. The point of interest here, however, is the relative paucity of investment in the engineering subsector. Its relative share of public investment in manufacturing in FFYP 1982/83-1985/86 was around 8.8%. Private local investment (Law 159 and 43) seemed to behave similarly; only 9.3% of investments in 1987 were from the private sector. Meanwhile, private foreign investment contributed \$18.4 million or a mere 11% of its total in the same year. The question whether these figures are the result of difficult entry, reluctance to invest in activities governed by rigid mandatory pricing

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<sup>2</sup> It is noteworthy that export figures were not at all significant. In 1987 they were LE 1.8 million (0.5% of total sales), out of which LE 430 thousand were local exports.

system, inflexible foreign currency and credit allocation regulations, or operating behind a low tariff barrier will be investigated in sections 3 and 4.

## Section III

### Conditions of Entry into Market

#### 3.1 Introduction

In the economic literature, the term "conditions of entry" is limited to the meaning "barriers to entry", i.e., barriers to the introduction of new productive capacity. In the literature [Bain, 1956], these barriers could be summed up in the following four issues: a) product differentiation barrier, b) absolute cost advantage, c) economies of scale, and d) large initial capital requirements. In the engineering industries, all these issues are certainly applicable and are faced by all intended enterprises, regardless of the type of ownership. The decision to enter the market depends entirely on the industries' ability to overcome these barriers prior to operation. Therefore, in the context of this study, "conditions of entry" refers to the legal framework and its mechanisms, which govern the introduction of new productive capacity after the decision to enter the market.

The Open Door Policy of the early 1970s marked the re-opening of opportunities for the private sector in Egypt. The private sector in Egypt today is composed primarily of companies which were established under Law No. 43 of 1974 for foreign investment and free zones and its amendments, and Law No. 159 of 1981 for private companies. Table 3.1 illustrates the impact that the Open Door Policy had on private sector development in Egypt. To some extent, the private sector is assuming an expanded role in economic development under the open door policy.

Expansion of the private sector's role in industrial development in the '80s has not kept pace with the expectations of the national plans. The Second Five-Year Plan projects an increase in industrial growth of 9.4% annually between 1986/87 and 1991/92, and it gives the private sector the predominant role in the realization of growth targets, accounting for 52% of planned total industrial investment. However, the business environment in Egypt

continues to pose numerous disincentives to the development and promotion of private industrial ventures.

Table 3.1 Comparison of Public and Private Sector Indicators  
(% Shares)

	<u>1973/74</u>		<u>1981/82</u>		<u>1986/87</u>	
	<u>Public</u>	<u>Private</u>	<u>Public</u>	<u>Private</u>	<u>Public</u>	<u>Private</u>
Production	75.0	25.0	67.3	32.7	74.1	25.9
Value-added	69.0	31.0	68.2	31.8	N/A	N/A
Exports	75.7	24.3	88.4	11.6	87.5	12.5
Investment	95.8	4.2	76.8	23.2	72.9	27.1
Employment	60.9	39.1	55.6	44.4	N/A	N/A

Source: World Bank Report No. 7491-EGT, Oct. 1986

### 3.2 Institutional Mechanisms

The establishment of companies in Egypt was governed until the early 1970s by Law No. 26 for 1954 and its amendments. Provisions of the law presented several disincentives - such as requiring purchase of government bonds, worker bonuses, worker representation on boards of directors, and restrictions on remuneration of corporate officers and directors, that served to curb incorporation for the conduct of private business. Only seven joint stock companies were founded during the 1960s.

To encourage private investment, the government introduced the Open Door Policy by passing Law No. 65 for 1971; that was later replaced by Law No. 43 of 1974 for Foreign and Arab investment and free zones. The law offered several incentives such as tax holidays, customs exemptions, liberal terms of profit and capital transfer, exemption from labor laws and exchange control regulations, and guarantees against nationalization. Law No. 43 was amended by Law No. 32 of 1977 to extend the incentives to local private investors and modify the exchange rate standard for evaluating foreign capital. It also cancelled the prerequisite that the foreign currency accounts of projects be fed only with export earnings and foreign currency transfers from abroad.

The incentives provided to foreign investors in Law No. 43 and Law No. 32 stood in sharp contrast with the disincentives contained in the provisions of

the Companies Law No. 26 of 1954. There arose the need to revise Law No. 26 to rid it of many of the constraints it posed on incorporating private business and to rationalize the treatment of private investors, local or foreign. The new companies law--Law 159 of 1981--was issued to govern joint stock companies, partnerships limited by shares companies, and limited liability companies and became the parent law for all types of companies in Egypt.

In its efforts to establish new industrial cities and encourage their development, the government promulgated Law No. 59 for 1979 regarding the establishment of new urban communities. This law offered projects implemented in certain zones, whether by companies or individuals, various tax and customs incentives and exemptions.

Recently, Law No. 230 for 1989 was issued to combine and extend the incentives provided under Law 43 and the incentives provided under the New Communities Law. This was done in the hope that it would bolster the investment environment and encourage more foreign capital investment. Local private investment still continues under Law 159. (The major features of Laws 43, 159 and 230 are compared in appendix B.)

Several criticisms have been directed at Law 230 of 1989. On one hand, the business community has expressed concern over articles 9 and 20. Article 9 gives the Council of Ministers, in case of necessity, the right to subject some essential products to compulsory pricing and profit limitations. Article 20 stipulates that at least 10% of the net profits of the companies shall be distributed annually to workers. On the other hand, some economists claim that the incentives offered by the law are unnecessarily generous and that the encouragement of investment is better served by creating a more stable political, legislative and economic environment, generating and streamlining policies that promote productivity and exports, decreasing the omnipotence of the bureaucracy, and increasing the efficiency of the state apparatus.

### 3.3. Conditions of Entry

The licensing of all industrial enterprises is the prerogative of the MOI in accordance with Law 21 of 1958 for the regulation of industry. The body that is directly responsible for the execution of this law within the Ministry of Industry is the General Organization for Industrialization (GOFI).

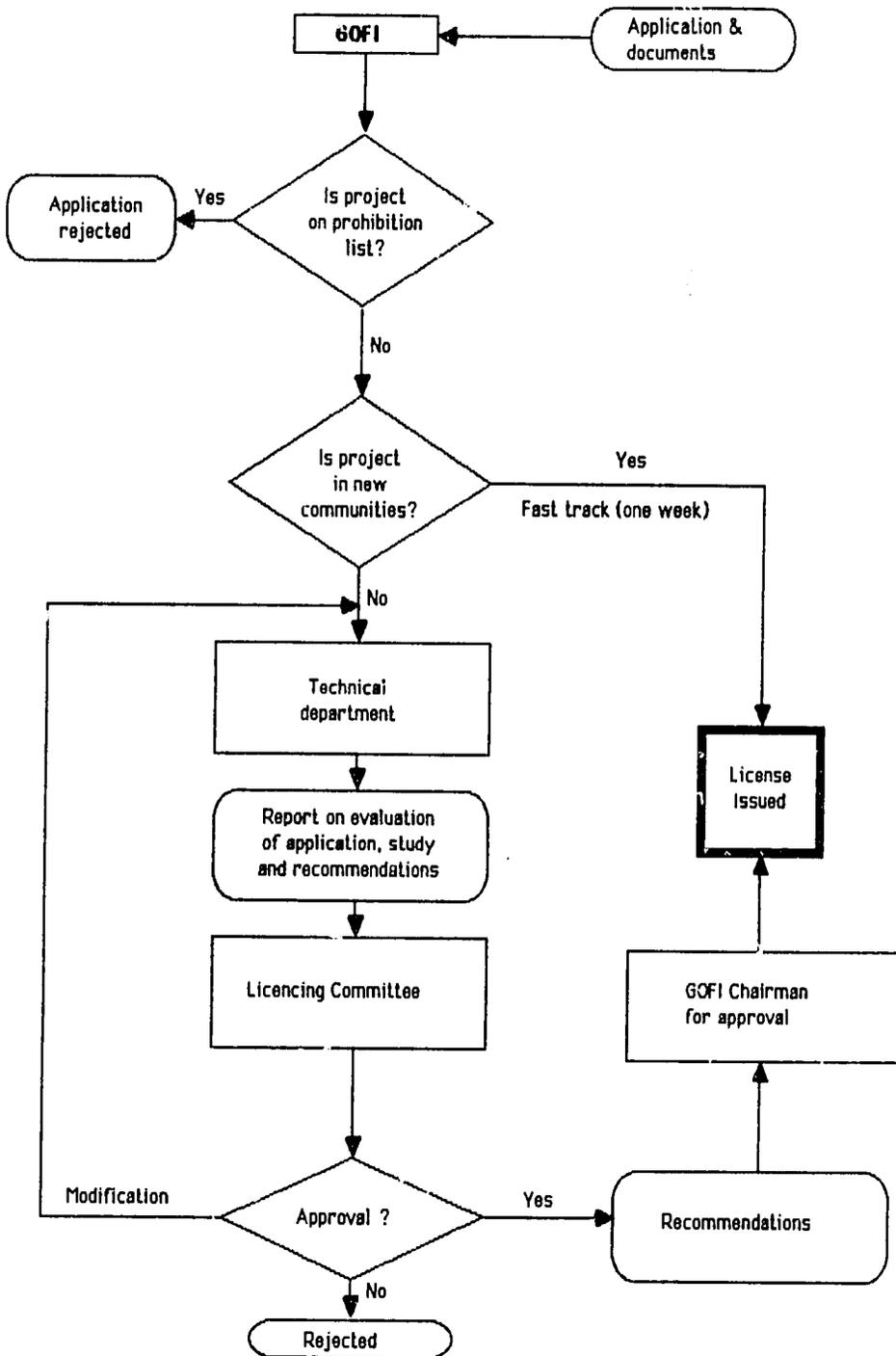
Figure 3.1 illustrates the major steps prescribed by GOFI to obtain permits for any enterprise with an investment capital in excess of L.E. 100,000. GOFI is essentially the single determining body which permits or prohibits the entry of any enterprise into the market. Every year GOFI prepares lists of industrial products that are permitted or prohibited from being licensed. This list covers the subsectors within which the MOI operates through its six public sector corporations (the Food Processing Corporation, the Textile Industry Corp, the Engineering Industry Corporation, the Chemical Industry Corporation, the Metal Industry Corporation, and the Mining Industry Corporation). The permitted/prohibited project lists are approved by the Minister of Industry who can modify them taking into consideration strategic issues of potentially lucrative investment opportunities. These lists are primary criteria against which an application is either accepted for further processing or rejected. The engineering sub-sector products included in the prohibited list, issued May 1989, are listed in appendix C.

Prohibition of certain projects may also originate from the following two sources:

1. The Higher Committee for Policies
2. Sector Ministries' Industrial Corporations and Ministers' Directives

The Higher Committee for Policies is an inter-ministerial committee chaired by the Prime Minister which may, in cases pertaining to certain strategic issues, command the restriction of licensing for the manufacture of certain articles. A case in point is the prohibition of new licenses for the production of electric heaters because of the national shortage of electric power.

Figure 3.1  
**Industrial Permit Procedure at GOFI  
 for Projects with Investment Capital Exceeding LE 100,000**



124

Figure 3.2

**Establishment and Industrial Permit Procedure  
at GAFI for Law 43 Companies**

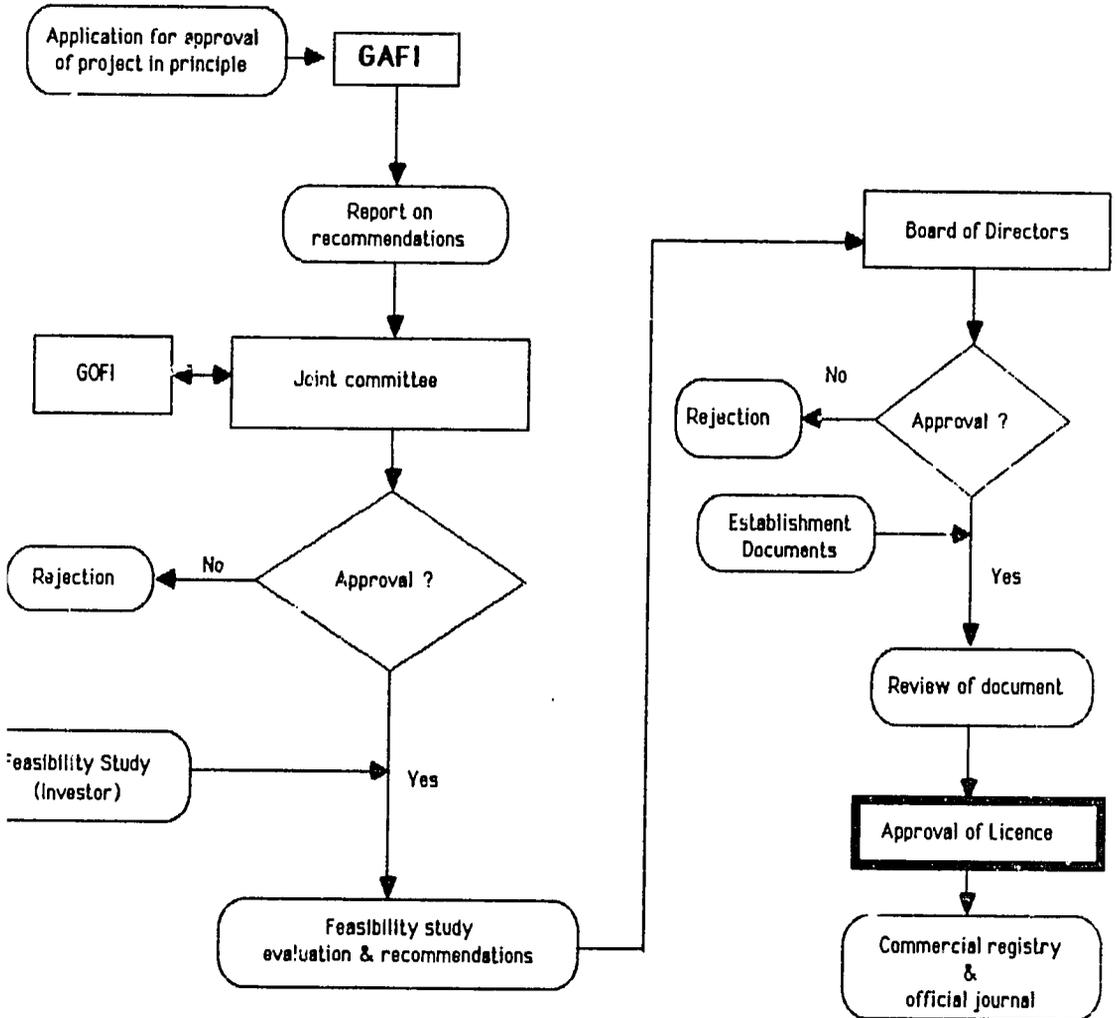
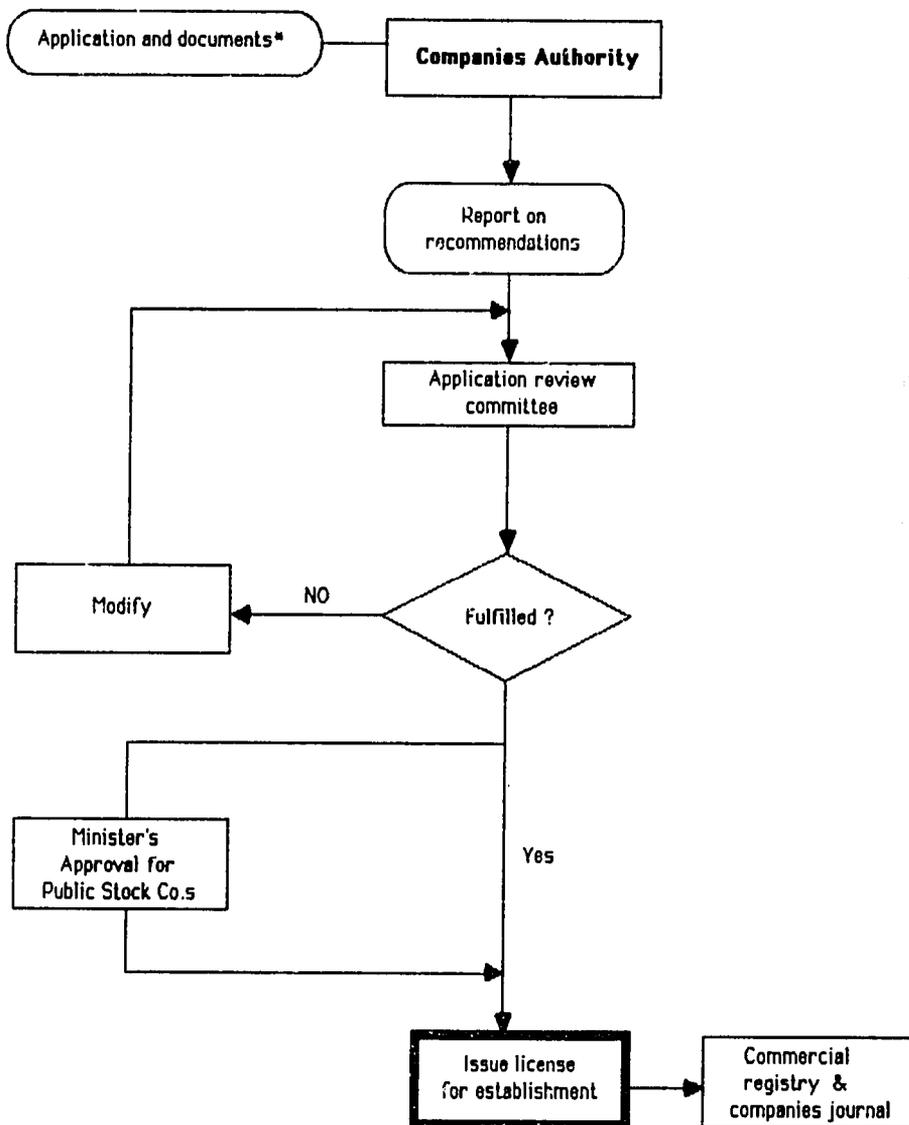


Figure 3.5

### Establishment Procedure at the Companies Authority for Law 159 Companies



\* Includes approval of Capital Market Authority for Public Stock Companies

120

On the other hand, GOFI continuously receives requests from the public sector corporations to prohibit licensing new enterprises for the production of certain products. These protection requests are usually made with the pretext that there exists, at present, excess unutilized production capacity in Egypt for this particular product and if activated would meet local demand. Hence, to better utilize the limited capital resources in the country, investors should be diverted to other avenues.

Private sector manufacturers may also submit requests for protection on the basis that the current production capacity meets current demand. Such requests are channeled to a committee within GOFI to study and assess the market for the products in question and identify the products that are eligible for protection.

GOFI uses a number of indicators to estimate market supply and demand. The most important of these are: annual imports of the product in question, current production, available unutilized production capacity, and consumption rates. The market studies conducted are usually desk-top exercises. The supply side is determined from the information found in GOFI's records on licensed capacities. Actual available production capacities are rarely considered. Demand is estimated based on consumption rates that are arrived at from historical local trends and comparative figures for developed and developing countries. If the estimated supply and demand figures reveal the existence of underutilized capacity, i.e. the supply capacity is greater than local demand, the product becomes eligible for protection. Given the prevalent import-substitution industrial policy, the major flaw in the estimation of demand is that no account is made of export potential. Even when exports are considered, only the present low level of exports is applied.

#### 3.4. Industrial Permit Procedures

The company establishment procedures under Laws 43 and 159 are summarized in figures 3.2 and 3.3, respectively. Under Law 43, the Investment Authority secures all the necessary permits and approvals from the different government agencies through a joint committee with representatives of other ministries and chaired by the Director of the General Authority for Investment (GAFI).

For an investment application in the manufacturing sector the Investment Authority arranges to attain GOFI's preliminary approval, and eventually the required industrial licenses and permits.

For Law 159 companies, on the other hand, legal establishment and industrial permits are two separate processes. Legal establishment must be approved by the Companies Authority in order to gain legal status and industrial permits must be obtained from GOFI before actual manufacturing may commence. Figure 3.1 presents the steps for obtaining an industrial permit. GOFI's Technical Department reviews permit applications focusing on:

- production capacity
- know-how employed in the production process
- types and quantity of machinery required
- material input requirements
- labor employed

These factors are reviewed for appropriateness and consistency to guard against the ultimate overestimation of equipment and/of material import requirements. In this context GOFI may correspond with other specialized authorities as the case may dictate, e.g. Ministry of Health for health-related industries, Ministry of Supply for material-related requirements. Sometimes it can recommend the use of local equipment or material in lieu of imports.

The procedures required to obtain permits for the expansion of an existing operation are similar to those required for a new industrial facility.

In the public sector the permit process is simpler and takes place during the preparation of a five-year plan. The investment proposals and requirements of all sectors are coordinated by the GOFI/MOI at the ministerial level with the MOP and MOF. At this point a dialogue develops between GOFI and the public sector company concerning capacity under-utilization for a particular product and the condition of the market, including public and private sector production. Once the five-year plan is approved, there are no further contacts regarding this matters during the period of the plan. The

implementation of those plans are then subject to the availability of finance and/or foreign currency at the local commercial banks.

In the new communities GOFI has a specialized office for issuing permits to industrial projects and is able to do so in about one week. Requirements are very simple, ie. an application form, a contract for the purchase or lease of the required plot of land and the document certifying establishment of the concern as a legal entity.

## Section IV Policy Environment

This section is concerned with the current environment in which the engineering industries operate. It encompasses four topics, namely:

a) mandatory price controls, b) tariff and trade barriers policies, c) foreign currency allocation and credit policies, and d) export promotion policies and incentives. The final topic is a brief assessment of the public-private discriminatory effect of these policies.

### 4.1 Mandatory Price Controls

Since its introduction in the early 1960's, the price control system has become, with varying degrees of enforcement and effectiveness, the government's basic instrument for achieving both allocative and distributional objectives<sup>1</sup>. However, the ability of the pricing system to maintain stable prices in the face of an ever-increasing cost structure has been overextended in the last decade. Inflationary pressures, particularly in the world commodity and energy markets, have impaired the economy's ability to sustain the government's price/subsidy policies. Price increases have always been a very contentious issue, but after the 1977 uprising in response to upward price movement for some commodities (e.g fuel, cigarettes, bread), the issue assumed an even more serious tone.

A decade later, although price controls are relatively more relaxed, the government still controls the prices of a wide array of products. Public sector production is classified into essential and non-essential commodities. The former (mostly products from the textile and food and beverage

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<sup>1</sup> Though price controls have been in use in Egypt since the 1939 introduction of rent ceilings and price fixing of some commodities [see Ikram, 1982, p. 226], it was the emergence of the public sector in early 1960 which established a price control mechanism. For an excellent historical exposition of the price control apparatus during the period 1939 - 1975 see Kamel [1977].

subsectors, as well as fertilizers, reinforced steel, and the engineering sub-sector products listed in table 4.1) are centrally controlled. The price changing mechanism is intricate and entrusted to an inter-ministerial committee chaired by the Prime Minister. The pricing of non-essentials (mostly consumer non-durables like macaroni, processed cheese, and a minority of consumer durables like transistor radios and dry batteries) are monitored by the appropriate ministerial agency but are allowed to move in relative freedom. For the engineering industries, the ministerial agency is the Public Sector Corporation of Engineering Industries, chaired by the Minister of Industry, which operates under Presidential Decree 426/1983.

Table 4.1 Engineering Industry Products  
Under Mandatory Pricing Systems

Essential Products	Non-Essential Products
- Refrigerators	- Transistor Radios
- Washing Machines	- Dry Batteries
- Passenger Cars	
- TV Sets	

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Source: IBRD, 1989, Annex 6, tables 1,2, and 3.

It should be noted that private sector engineering industry products are not subject to these controls. In other manufacturing subsectors, prices of some products are controlled for both public and private sectors (e.g cement, soft drinks, and selected food products), however, for the engineering industries the phenomenon is almost exclusive to the public sector<sup>2</sup>. In some cases, public sector firms, such as NASR TV, operate as assembly facilities for a private sector importer. Though TVs are subject to mandatory price controls, in this case restrictions are not applicable to the private entrepreneur who pays assembly fees to the public sector entity. For the private sector, the market price is affected by two intervening factors: a) the controlled price

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<sup>2</sup> Though not strictly comparable, price controls are also extended to private sector exports. Authorities often refuse to accept the exporter's invoice if it does not equal or exceed domestic prices out of fear of underpricing. This introduces the possibility of capital flight and compromises the ability to offer competitive prices in the international markets.

of a public sector competitor which limits what can be charged, and b) the level of protection from foreign trade which places the domestic price above that of the international.

The impact of price controls on the manufacturing industries has been assessed by several economists. To quote Handoussa [p. 45]:

... the response to price controls has seriously impaired the allocative process in investment and product mix. Existing enterprises have found it necessary to shift their production decisions away from controlled commodities (low or negative profit) and toward those goods which are not subject to price fixing.

Whether the engineering subsector has been capable of cleverly manipulating the product mix towards more profitable products, or able to increase prices seems to be only of academic interest. The increase in the price index over the period 1982/83 - 1987/88 was largely insignificant, around 3% for the subsector and the sample companies while the wholesale price index experienced an 11% annual upward movement. Table 4.2 demonstrates price indices for the sample companies and the subsector as a whole in the period under consideration.

In such circumstances, it is inevitable that any initial relationship between sale price and cost-plus pricing role would soon disintegrate. Any serious attempt to de-regulate prices must renew the commitment to cover operation costs--at efficient operation--as well as allowing for profits on capital employed. Though there is evidence of relaxing these controls as of 1986/87, considerable damage to performance has taken place as demonstrated in Section VI. It is true that some companies (e.g Ideal, Telemisr, Philips) have registered price increases in the neighborhood of 12 to 15%, but equally clear that some other companies (e.g NASR TV) have been totally incapable of transferring the inflationary pressure to the consumer. It is no wonder that Handoussa's [ 1988, p. 41] estimate of foregone profits in the industrial public sector in 1982/83 was almost half a billion Egyptian pounds. The impact of price controls on profitability, among other factors, is discussed in greater detail in section 6.

Table 4.2: Sale Price Indices for the Engineering Subsector and Sample Companies, 1982/83 - 1987/88

	2/83	83/84	84/85	85/86	86/87	87/88	Average Annual Change
Eng. Sector	100.0	102.0	103.0	107.0	110.0	121.0	0.03
Ideal	100.0	100.0	101.3	109.5	110.3	122.5	0.03
Telemisr	100.0	98.7	98.6	105.3	115.6	139.5	0.06
Philips	100.0	100.5	100.7	104.4	105.4	122.3	0.03
Nasr TV	100.0	88.0	88.8	93.4	102.2	103.2	0.01
Eltramco	100.0	121.8	120.2	128.2	128.2	136.7	0.05
Sabi	100.0	100.0	99.8	98.0	96.5	95.3	(0.01)
Cairo metal	100.0	100.0	105.9	128.8	127.3	148.3	0.07
Alex. Metal	100.0	103.1	109.1	116.1	117.	144.6	0.06
Koldair	100.0	99.3	101.6	107.8	113.1	127.5	0.04
Sample Av.	100.0	98.95	99.7	106.4	109.5	121.9	0.03

Source: MOI, Follow Up Reports (estimated).

Notwithstanding the damage to profitability and the allocation process, it would be unfair to discuss the mandatory pricing system without referring to the explicit and implicit subsidies to production costs. Explicit subsidies, taking the form of production and, to a lesser degree, export subsidies, reached a peak of LE 349 million in fiscal year 1982/83. The largest recipients were the producers of popular cloth, fertilizers, vegetable oil/soap, and coke. A significant reduction in subsidy volume was observed subsequently starting fiscal year 1985/86, but unfortunately it was shortlived. After decreasing to LE 70 million in 1986/87, production subsidies escalated to LE 263 million in 1987/88, predominantly allocated to food and beverage companies. Table 4.3 demonstrates the distribution of production and export subsidies among the MOI sub-sectors in the period 1982/83 - 1987/88. It is also clear from the table that the engineering industries were not among the recipient companies<sup>3</sup>. Local private and Law 13/194 companies do not have access to production and export subsidies and the phenomenon is exclusive to the public sector.

<sup>3</sup> From the same table it is clear that export subsidies are relatively limited. They are discussed further in section 4.4 with reference to export promotion policies.

Table 4.3

Production and Export Subsidies  
by Recipient Sector, 1982/83 - 1987/88

	1982/83		1983/84		1984/85		1985/86		1986/87		1987/88	
	Pro.	Exp.	Pro.	Exp.	Pro.	Exp.	Pro.	Exp.	Pro.	Exp.	Pro.	Exp.
Textiles	29.5	14.0	133.1	15.6	125.3	0.1	99.2	2.2	0.0	2.2	0.0	2.0
Food	45.5	0.2	40.4	0.3	46.0	1.2	44.1	0.5	40.2	0.6	240.4	0.7
Chemicals	125.3	0.0	132.7	0.0	146.5	0.0	120.9	0.0	11.3	0.0	3.2	0.0
Eng.	0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Metal	30.6	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quarry	18.5	0.0	18.5	0.0	21.0	0.0	18.5	4.1	19.3	4.3	20.0	4.7
<b>Total</b>	<b>349.6</b>	<b>14.2</b>	<b>325.3</b>	<b>15.9</b>	<b>340.8</b>	<b>1.3</b>	<b>282.7</b>	<b>6.8</b>	<b>70.8</b>	<b>7.0</b>	<b>263.6</b>	<b>7.3</b>

Source: MOI, Follow Up and Performance Reports, several issues.

Implicit subsidies, or cross-subsidization, is the process of charging input prices below their current market rate<sup>4</sup>. Through administrated price controls, large implicit subsidies are hidden among different government agencies. Energy prices are examples par excellence, since some public sector units (e.g KIMA for nitrate fertilizers) are charged one twentieth of their opportunity cost [IBRD, 1989, p. 57]. Law 43 companies, as a rule, do not receive subsidized prices for their inputs as do Law 159 companies and public sector enterprises. In practice, it appears that Law 43 companies, particularly those with high public sector share holding interest, are able to negotiate reductions in their input costs. For the engineering industries, however, the Chamber of Engineering Industries emphasizes that none of its Law 43 or Law 159 member companies receive input subsidies.

The net impact of this complicated pricing system on the economy is difficult to gauge. However, this is best explained as follows [IBRD, 1989, p. 55] :

This practice has caused public enterprises to be a large explicit drain on the budget, despite the heavy implicit subsidization of their input costs. A 1987 Bank [IBRD, Review of the Finances of the Decentralized Public Sector, Report No. 6421-EGT, 1987] showed that the overall deficit

<sup>4</sup> If the current market rate is below the economic cost of input, all producers are subsidized across the board. This subsidy, however, does not affect cost curves in comparison to other local producers since their curves shift downward in the same magnitude, providing, of course, that market prices are unified.

of the public companies was about 7% of GDP in 1985. These losses, brought on in large part by price controls intended to contain inflation, serve to fuel rather than control inflation through their effect on expanding the public sector budget deficit.

#### 4.2 Foreign Currency Allocation and Credit Policies.

Foreign currency allocation and availability are crucial to the engineering industry, which is a foreign exchange intensive activity. Engineering industry imports represent 47% of total industrial imports, which were valued at US\$ 3 billion in 1987.

Until 1987, the foreign exchange market was fragmented into three pools. The central bank pool handles exports of petroleum, raw cotton, and rice, imports of essential food stuffs, and some capital transactions of the public sector. It receives revenues from Petroleum exports, the Suez Canal and the SUMED Pipeline. Its operative exchange rate, since 1979, is LE 0.70/US\$, and it handles approximately 40% of foreign exchange transactions. The commercial banks pool receives worker's remittances, tourism receipts, and revenues from other commodity exports, and finances both private and public sector imports. The third pool, the free market pool, shares common sources of supply with the commercial bank pool and supplies exchange for most visible and invisible transactions for the private sector [IMF Annual Report, 1988, p. 187/193, also IBRD, 1989p. 43/44]. As of May 1987, the commercial bank and free market pools were unified in one market leaving the central bank pool to operate independently. This unification is an attempt to create a more realistic exchange rate since the commercial bank pools had to adopt the rate prevailing in the free market then (LE 2.19/US\$ instead of LE 1.89). Though devaluation is bound to rationalize imports and promote exports, the system must be flexible to maintain competitive exchange rates, and equally important, ensure an adequate flow of resource to satisfy demand.

The public sector demand for foreign exchange is controlled by the GOE's budgetary process. The process of allocation and its implementation is described as follows [IBRD, 1989, p.46]:

Industrial Public Enterprises prepare annual budgets which indicate local and foreign exchange requirements (in LE and foreign currency terms)

which are reviewed (and adjusted) by their Boards and General Assemblies. ...Once the foreign exchange requirements are agreed upon, officials from the Ministry of Planning and Finance earmark the foreign exchange funds for the companies with the (public sector) commercial banks. The Industrial Public Enterprises which produce critical commodities (like fertilizers) are generally able to obtain foreign currency when they need it. Most other enterprises complain that they must wait anywhere from six months to one year after requesting a letter of credit before they can actually get the foreign exchange needed for imports.

Data collected on public enterprises in the engineering subsector largely coincides with the above comment. Table 4.4 demonstrates the percentage of unexecuted letters of credit relative to the total approved raw material imports for the engineering industries subsector. Over the period 1.7.88 to 31.3.89, the subsector failed to open almost 40% of its already approved imports. The majority of these imports were financed by the unified commercial banks/free market pool as well as the proceeds from exports, loans, bilateral trade agreements, and re-allocation of unused funds from other companies. Intercompany variations in executing LC's were considerable. Some companies (e.g Alexandria Shipyard) acquired none of their import requirements, while others (e.g Industrial Fittings) executed all of their LC's. This is obviously the effect of the priority lists, particularly in view of the fact that companies with access to export proceeds (e.g NASCO, IDEAL) did not fare better than those without export sales at all.

Private sector imports, a term which implies that the item in question is not subject to quantitative restriction, are executed through the same pool, namely the unified commercial banks/free market pool. Though in practice it is the responsibility of the private sector entity to provide for its foreign exchange requirements, some banks can open letters of credit paid for in local currency subject to the approval of the Central Bank of Egypt (CBE), a process which tends to be time consuming. If the entity has no access to free foreign currency sources (e.g export proceeds), the banks accept non-transferable foreign currency (i.e black/free market), which is deposited in a special "import account". In most cases, however, private sector entities enjoy credit lines which facilitate initial partial coverage of imports--not less than 35%--and spread the full L/C payment over time.

Table 4.4 Approved Imports, Executed and Unexecuted  
Letters of Credit for the Engineering Subsector  
1.8.1988 - 31.11.1989.

(\$ 000's)

Company	Approved Imports	Executed LC's	Unexecuted LC's	Percent Executed
NASCO	87,789	55,756	32,033	36
Ideal	51,586	29,143	22,443	44
Alex. Shipyard	3,003	38	2,965	99
Egt. Cables	25,312	17,633	7,679	30
Telemisr	16,386	10,161	6,225	38
Philips	18,825	12,522	6,303	33
Nasr TV	21,409	12,144	9,265	43
SEMAF	12,743	7,020	5,723	45
ELTRAMCO	19,509	11,417	8,092	41
SABI	1,532	1,232	300	20
STELECO	1,362	1,100	262	19
METALCO	654	216	438	67
Ind. Fittings	409	409	0	0
Cairo Metals	2,667	1,505	1,162	44
Alex. Metals	3,117	2,669	448	14
Koldair	8,736	6,752	1,984	23
Misr Engineering	1,071	445	626	58
YAYAT	1,846	1,846	0	0
Egt. Boilers	3,047	2,610	437	14
<b>Total</b>	<b>281,003</b>	<b>174,618</b>	<b>106,385</b>	<b>38</b>

Source: Ministry of Industry, Performance Reports.  
(1988/89 Draft)

Credit availability to both public and private sector entities is another area worthy of examination. In the absence of an advanced capital market, the governing institutional structure is solely that of the banking system. By 1987 there were 27 commercial banks, 33 business/investment banks, four specialized banks and the National Investment Bank [IMF, 1988, p. 25]. The four specialized banks are the Agricultural and Industrial Development Banks, and two for real estate development. The National Investment Bank (NIB) is government owned for the purpose of its capital investment spending as well as that of the public sector. By March 1987, the banking system's total outstanding credit amounted to LE 24.8 billion pounds of which 45% was for Government and public sector .

The instruments of credit policy have always been interest rates and credit ceilings; the reserve requirements have long remained at 25% for Egyptian pounds and 15% for foreign currency. Interest rates on foreign currency are not regulated by the CBE and approximate the Eurocurrency rates. Interest rates on Egyptian pounds, however, are strictly controlled with considerable parity with the prevailing inflation rates. This parity is tantamount to a negative interest rate which feeds the inflationary pressure, mainly through pressures on the exchange rate. A preference for maintaining liquidity in foreign currency prevails and capital flight takes place; currency substitution is often observed. The situation is exacerbated when lending to some economic activities is offered at rates even lower than those prevailing in the market. In such cases, the allocation of factors of production between labour-intensive and capital intensive techniques is bound to be biased in favor of the later, increasing the distortion in the economy.

Table 4.5 Interest Rate Structure May 1989

I. Savings Deposit Rates		Annual Rate	
Seven days to 364 days		5.0 - 10.0%	
One year to less than five years		2.0 - 14.0%	
Five to seven years		15%	
II. Lending Rates		Rates (May 1989)	
	Ag. & Indust.	Services & Individual	Trade
Less than 1 year	13-15%	15-17%	18% & above.
One year to < 2 years	14-16%	16-18%	18% & above.
More than two years	15-17%	17-19%	18% & above.
III. Specialized Lending Rates (partial listing)			
Activities	Rates		Rates
	(through April '89)		(after May '89)
Agriculture	3.7%		9.5%
PS from NIB	9% + 3 yr. grace		9.5% + 3yr.grace

Source : IBRD, 1989, p. 64.

The prevailing structure of interest rates as of May 1989 is demonstrated in table 4.5. Despite the clear subsidy to agricultural and industrial activities, it should be noted that these rates are at least 3% higher than those prevailing in 1987: an increase of 1% in 1987, and 2% in May 1989. Further concessions are extended to the government and the public sector. For example [IBRD, 1989, p. 64]:

"..seasonal government budgetary deficits are met by Central Bank facilities at preferential rates applicable only to government agencies. Public sector authorities and enterprises are likewise eligible for subsidized interest rates through the government-owned National Investment Bank."

The interest rate increase in May 1989 was only a measure to control credit. Credit ceilings are also used. The government has had to limit credit growth to 10% as per its standby agreement with the IMF in 1987. Credit ceiling regulations were revised once more in 1988 to not to exceed 60% of customers deposit for all sectors except trade which remained at the 10% ceiling. Stricter regulations were later approved by CBE to prevent inter-bank transactions used by the banks to avoid credit growth limitations. Another form of credit restriction is placed on uncovered lending for a single borrower to not to exceed 25% of bank's capital and reserves<sup>5</sup>. Both public and private sector entities were subject to such ceilings. However public sector companies are often exempted from the later. This ceiling would indeed limit the increase in public sector borrowing which grew during the period of 1982/83 - 1987/88 by an average compound rate of 18%.

The comparative structure of the industrial public borrowing is demonstrated in table 4.6 for 1982/83 and 1987/88. Both private and public sector entities have been subject to considerable pressure to increase their demand for loans in the last few years. Probably the most important of these pressures was the considerable successive devaluation of the Egyptian pound. Credit outstanding on foreign currency loans requires substantially greater local currency to service. This is in addition to considerable cash outflow needed

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<sup>5</sup> Uncovered lending is that which is not secured by cash deposits or bank L/Cs. Mortgages, personal or corporate guarantees, pledged goods ..etc. are not sufficient security.

to meet the increased custom duties on the more expensive importables.

Table 4.6 Comparative Structure of Loans in MOI Sectors  
1982/83 - 1987/88.

(in LE millions)

	Textiles		Food		Chemicals		Eng.		Metal		Mining	
	/83	/88	/83	/88	/83	/88	/83	/88	/83	/88	/83	/88
	Long Term											
- Local	314	542	179	467	190	297	39	122	147	236	53	258
- Foreign	174	285	159	593	138	513	95	153	76	739	9	48
	Short Term											
- Overdraft	244	234	244	351	198	540	249	1151	85	221	22	112
- Secured	143	361	7	5	12	22	17	260	36	65	3	0
Total	875	1422	589	1416	538	1372	400	1686	344	1261	87	418
Growth Rate		8%		16%		17%		27%		24%		30%

Figures are rounded to nearest LE million. Growth rates are compound annual averages.

Source: MOI Performance and Follow Up Report, several issues.

The current milieu of credit policies, laws and guidelines governing credit may be seen to favor the public sector companies rather than the private sector for the following reasons:

- a. The public sector enjoys both access and preferential treatment to treasury participation in equity. Though such participation used to be interest free, it is currently five percentage points below the current market rate.
- b. Public sector companies have access to the National Investment Bank (NIB). The bank, established in 1966, not only extends credit to projects enlisted in the successive development plans, but is also involved in equity participation, and supervising capital expenditure decisions. Its investment lending is normally repayable over 10 - 15 years. Furthermore, its services to the public sector firms--governed by Law 119/1980--encompass identification of new investment opportunities and preparation of the required studies. Additionally, the NIB absorbs deficits from operation which are not

covered by previous years' accumulated surplus.<sup>6</sup>

- c. According to Item 8, Article 8 of Law 426/1983, the Public Sector Corporation of Engineering Industries, as well as its sister corporations, can extend credit to its member companies in addition to acting as their guarantor in banks' borrowing.
- d. According to Law 97/1983, article 47, Public sector companies cannot be declared bankrupt, which boosts their creditworthiness. This is not the case for Law 159/1981 companies. Article 129 stipulates that companies can be dissolved following losses reaching 50% of their capital.

On the other hand, the Industrial Development Bank plays an active role in extending credit lines to the private sector. The bank predominantly operates within the private sector, offering much needed medium- and long-term lending. Furthermore, it finances private sector foreign currency requirements in credit lines repayable in local currency. The latter function is greatly facilitated by "ear-marked" loans for the private sector from other international organizations such as the IBRD, USAID, the African Development Bank, the EEC, OPEC, the Swiss Government/UBS, the German Construction Bank, and the Islamic Development Bank of Jeddah, a total of US\$ 683.3 million as of 31.12.1986.

Another observation stems from the relative distribution of credit facilities from non-governmental banks. Table 4.7--which demonstrates the loans granted from commercial and Investment Banks in March 1987--shows that the private sector is enjoying preferential treatment in credit allocation from private sources. The table shows that private sector companies' share of

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<sup>6</sup> In fiscal year 1987/88, the NIB committed itself to extending deficit financing of LE 260 million. The share of industry and energy was LE 36.9 million [NIB Annual Report, 1988, p. 23/26]. While most of the recipient companies are in the sub sectors of textiles and chemical industries, few engineering industry companies were beneficiaries of these credit facilities. They are Misr for Tools (LE 0.7 million), Semaf (0.8 million) and Alexandria shipyard (LE 2.2 million).

total credit outstanding as of March 1987 was 50% of the total; twice the balances of the public sector firms.

Table 4.7: Loans Granted from Commercial and Investment Banks  
Classified by Sector, March 1987.  
(LE000's)

	Comm. Banks	Inv. Banks	Total	Percent
Government Sector	4069	555	4624	18.61
Public Sector Companies	5525	234	5759	23.18
Private Sector Companies	9769	2640	12409	49.94
Household Sector	543	100	643	2.59
Foreign Sector	230	1183	1413	5.69
Total	20136	4712	24848	100.00

Source: Central Bank of Egypt Economic Bulletin,  
Vol. 27, No.1 , 1987.

#### 4.3 Tariff and Trade Barrier Policies

A primary operational tool in promoting what is essentially an import substitution industry is trade barriers. As most engineering industries in developing countries tend to operate below the minimum efficient size (MES) because of the limited market demand, trade barriers are necessary to shelter the infant industries from competitive foreign producers. The higher the barrier facing imports, the more protected the local industry is. Nevertheless, the barrier structure should always be reviewed in conjuncture with tariffs levied on the products' inputs. As the intermediate industries, in turn, require protection, the effect of the barriers coincidence on the two industries should be that which represents the ultimate measure of protection; otherwise, the effective rate of protection.

In some developing countries trade barriers can be extreme indeed. They range from prohibitive nominal tariff rates to quotas and currency controls to complete removal of items from lists of permitted imports. The Egyptian experience is certainly no different, and since the 1930's all these measures

have been employed with one degree or another<sup>7</sup>. The structure of these barriers has been a function of a) the degree of protection required, b) revenue generation, c) curtailment of foreign exchange expenditure, d) relative incentive measures for investment, and to a lesser degree e) income distribution and social considerations.

The present trade barrier structure is composed of tariff rates and quantitative restrictions<sup>8</sup>. The tariff structure, Law 351/1986 and its amendments, is aimed at--among other things--rectifying some of the ill effects of Law 202/1980, which included colossal exemption concessions to a wide array of activities that reached 40% of tariff revenues. Other important objectives most relevant to the engineering industries, are: a) to reach a balance between duties levied on CBU imports and intermediates, and b) to encourage local assembly of products. Article 6 of Law 351/1986 gives a producer with zero local content a 20% reduction in tariff duty usually levied on the product CBU. If the local content increases to 20%, the reduction is 25% in duties, and so on with a maximum of 75 reduction. The details of this concession are as follows:

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<sup>7</sup> For an excellent historical exposition of the Egyptian trade barriers system and foreign trade regimes since 1930 see Hansen and Nashashibi [1975].

<sup>8</sup> The analysis is limited to tariff and quantitative barriers. For various reasons, this report does not regard production subsidies and foreign currency allocation procedures as operative trade barriers by first intention. It is true that production subsidies to local producers would increase local output (a shift in the supply curve to the right), hence decreased imports. Nevertheless, in the Egyptian context, these subsidies are usually indirect subsidies to the consumer (e.g. fertilizers, popular textiles..etc), and not intended to curtail imports. Furthermore, with reference to sections 4.1 and 4.4, the engineering industries cannot be regarded as a recipient sector. If a fair appraisal of the subsidies' effect is required, the impact of the mandatory pricing system--the opposite effect to subsidies--should be taken into consideration. The currency allocation procedures are temporary measures to overcome reserves bottlenecks, and to ensure that quantitative restrictions are strictly adhered to and are not intended to add protection to a specific industry.

Local Content	Percentage Reduction	Local Content	Percentage Reduction
20%	25	50%	50
30%	30	65%	65
40%	40	>65%	75
50%	50		

It is worth mentioning that with the consent of both the MOF and the MOI, companies engaged in "complicated" industrial operations may be granted a reduction in tariffs on importation of parts--of no more than 40%--prior to operation. GOFI, in association with the Customs Authority, then monitors the progress of local content in an annual report to the MOF. Failure to achieve the set percentage content causes the concession to be cancelled, and the company is asked to settle actual differences accrued retroactively. The mechanism of these concessions is governed by the Minister of Finance Decree 194/1986.

Tariff duties levied on engineering sub-sector products vary widely from 160% on passenger cars with larger than 2000cc engines, to a mere 5% on agricultural tractors. Appendix D demonstrates the rates applicable to 64 of the sub-sector's major products. Their average nominal protection rate is 50%, which, not surprisingly, is considerably higher than the 31% average rate applicable to the manufacturing sector at large [IBRD, 1989, p. 48]. The tariff rates levied on the electronic industries/consumer durables commodities demonstrated in table 4.8 are mainly in the 100% range. Tariff duties on parts are in the 20% - 85% range, though concessions granted to manufacturers and assemblers should be taken into consideration.

Tariff barriers are further strengthened by quantitative restrictions. An import list, of a rather fluid nature, which includes over a 100 banned and 210 restricted commodities is currently in operation and applicable to commercial imports. Since most of these imports are commercial, the applied quantitative restrictions are tantamount to an "embargo". The bulk of the banned items consists of consumer durables and non-durables (e.g processed foods, textiles). With reference to engineering products, the banned items include: washing machines, dishwashers, dryers, ovens, heaters, refrigerators, coolers, receivers (radio and TV), recorders, ceiling fans,

passenger cars and bodies; an exhaustive list of all items is in appendix E. It is noteworthy that both public and private sector companies can ask for items to be included in the banned import lists. A committee made up of representatives of the MOI, the MOS, the Military, and the MOEFT reviews the requests after seeking the opinion of both the FEI and the representative of the industries concerned, upon which a recommendation to the MOEFT is made.

Table 4.8 Tariff Rates Levied on Engineering Industry Commodities

Product	Tariff	Product	Tariff
Air Conditioner Units (BU)	110%	Car Stereos	110%
Air Conditioner Split Units	110%	Radios	110%
Dryers	110%	Refrigerator	
Refrigerators (240-800 liter)	110%	Spare Parts/800L	60%
Dish-washers	110%	Refrigerator	
Washing Machines	110%	Spare Parts HU>800L	85%
Heaters	110%	Air Conditioner Compressors	30%
Televisions	110%	Air Conditioner Fans	60%
Radio Cassette Players	110%	Refrigerator Compressors	20%
Fans for Vacuum Cleaners	60%	Vacuum Cleaners	110%

Source: Law 351/1986.

The Chamber of Engineering Industries concedes that the current tariff rate structure is more conducive to industrialization, compared to the previous rates of 1981. Nevertheless, some of its members feel that some products are not adequately protected yet. Producers of some transport equipment parts (e.g gaskets, air and oil filters) argue that the parity between nominal tariff rates on the final products and their inputs is minimal indeed. While some changes in these rates, particularly on the final product, might be recommended, the Chamber emphasizes that it does not favor import bans as a protection medium. The Chamber argues that such a ban would considerably increase local prices, foster a monopolistic market structure with all its drawbacks, and allow an unfairly high market share, which is difficult to rectify later.

Measuring the effectiveness of trade barriers on promoting engineering industries is fairly complicated. Estimating the tariff equivalent of a

quantitative restriction, a prerequisite to calculating the effective rate of protection (ERP), is not readily available. However, for most products in the engineering sector, particularly consumer durables, the fact that practically all commercial imports are on the banned list puts its ERP values at extremely high levels indeed. While this can act as a catalyst for drawing resources to such activities, entrepreneurs are bound to be aware of the transitory nature of these import quantitative restrictions, and hence will expect them to be of relatively short duration. A wise decision concerning market entry should be based on ERP values estimated from the tariff rates.

#### 4.4 Export Promotion Policies and Incentives

Most economists consider exports to be a key area for growth for Egypt without which a steady rise in per capita income is extremely unlikely indeed [IBRD, 1983, p.11]. To generate the foreign exchange needed to finance growth an emphasis is placed on commodity exports, particularly non-oil, since the "exogenous" foreign exchange inflows (e.g. tourism remittances, Suez Canal) are uncertain. Some of these efforts have been at the macro level, e.g. establishing more realistic foreign exchange rates, and encouraging foreign investment, meanwhile others have been at the sectoral level, e.g. improving export facilities and streamlining procedures. Nevertheless, during the period 83/84 - 86/87, export figures have declined considerably in volume and as a percentage of the GDP (see table 4.9). Furthermore, if exports of petroleum, cotton and textiles are excluded, Egypt would be left with no meaningful commodity export.

Table 4.9 Exports As Percentage of GDP  
1983/84 - 1986/87  
(LE billions)

	83/84	84/85	85/86	86/87
GDP	27.9	32.9	36.0	44.0
Exports	2.8	2.8	2.8	2.0
Percentage	10.3	8.7	8.0	4.7

Source: Adler, 1988.

The engineering sector is certainly not an exception to the general export situation. With the sole exception of NASCO and Ideal, both of which operate local sales schemes in foreign currency, no sizable exports have been reported in the last three years. As shown in table 6.22, the ratio of exports to total sales is low. Exports are ultimately an issue of allocative and technical competitiveness, and should be dealt with as such<sup>9</sup>. However, after a careful project identification process and because of the extreme competitiveness of international markets, the need for promotion policies, incentives and administrative reforms will arise. These policies can take the form of linking investment incentives to export performance, identification of new export opportunities, financing, exchange rate controls, and eliminating bias against exports from protection/subsidies. For exposition purposes, these policies will be classified into a) investment assistance, b) monetary incentives, and c) fiscal incentives.

The primary type of investment assistance is financing. This is potentially available from the Export Development Bank of Egypt (EDBE), whose principle objective since its establishment in 1983 has been to promote and finance industrial investments for exports. But behind high trade barriers, the EDBE has found it difficult to promote export-oriented industries, since investment is directed at local markets, which with their trade barriers can generate higher profit margins, an observation applicable to the engineering industries. Further recent investment assistance to exporters is provided by the EDBE's two subsidiaries approved by the Government in 1988; the first for trade financing through exporters' facilities (supplier's credit), and the second for handling export insurance operations.

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<sup>9</sup> Some economists [Adler, p. 20] argue that the export problem in Egypt is not a procedural problem: " Though responsible for a major part of the problem, procedures cannot be solely accused for the slim exports revenues in Egypt for the simple fact that if we assume that all procedural problems were completely solved and, as a result, export revenues increased by 100%, it would be still a very modest export performance either if looked at as a percentage of the national income or as a country top priority expected to achieve balance of payment stability, create more employment, and enhance technological development in Egypt."

Further assistance to investment is in the area of marketing. In general, marketing functions are performed by both governmental and private agencies. The former include the Egyptian Export Promotion Center, the General Authority for Fair and Exhibitions, the Commercial Representation Services, the FEI, and the Exporters' Union; the latter include the two trade chambers of Cairo and Alexandria. However, the effectiveness of such boards is hampered by their inability to recruit the experience necessary to effectively coordinate the promotion of Egyptian exports and efficiently disseminate information on world trade and market trends.

Monetary incentives are limited to export subsidies, and the exchange rate. However, subsidies are no longer a basic incentive in promoting exports, as illustrated by table 4.3 in section 4.1 above. While export subsidies hardly exist, production subsidies are almost exclusively granted to the food and beverage sub-sector companies to sustain the rigid mandatory price system, and though this can potentially affect the cost structure, these companies do not possess the capacity to export over and above local market needs. Non-public sector entities do not have access to this incentive in any case, whether it is operative or not.

Probably the most important monetary incentive available to exporters is the right to calculate export proceeds at the free market exchange rate instead of the official rate (MOEFT Ministerial Decree 223/1987). In most cases relevant to the engineering industries, export proceeds may be fully retained in foreign exchange retention accounts<sup>10</sup>. However, these foreign exchange proceeds are to be used exclusively for the importation of production requirements or otherwise to be exchanged for local currency after twelve months (MOEFT Decree 95/1987). This time limit is viewed by Egyptian

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<sup>10</sup> Proceeds from exports of petroleum, cotton, and rice, a government monopoly, have to be sold in full to the Central Bank. Furthermore, only 50% of the proceeds from exports of peanuts, onions, garlic, potatoes, citrus, live goats/sheep, fish and molasses may be retained. Proceeds from exports of both the public and private sectors to countries with bilateral payment agreements, are obtained in Egyptian pounds, in accordance with the provisions of the relevant agreement [IMF, Annual Report of 1988, p. 190].

exporters as a constraint on their ability to extend suppliers' credit beyond twelve months, reducing their competitive edge in the international market.

Fiscal incentives offered to private sector exporters are limited to the drawback system and "temporary admission". The former incentive system allows for a reimbursement of tariff duties paid on intermediates. The functionality of such a system has always been considered ineffective [IBRD 1983, p. 279]. Bureaucratic delays, particularly when the exporter is not the producer, are serious, as importers in other countries are sometimes reluctant to give customs certificates. In any case, the Chamber of Engineering Industries considers this system to be almost a total failure since it takes more than two years to reimburse the duties paid. The system of "temporary admission" of raw materials, allows the exporter to avoid import duties on intermediates, subject to submission of a letter of guarantee. The letter of guarantee is called if exports are not effected or material inputs were used in purposes other than export production. While this system seems an improvement, issuing a letter of guarantee inflates production costs with unnecessary bank commissions and interest rates. Obviously, entities operating in the Free Zones (e.g Port-Said) do not face these problems, but it is not possible to locate all Egypt's exporting industries there. It is noteworthy that there are no tax concessions on profits generated from export activities, neither is there an indirect tax reimbursement system.

Apart from this uneven incentive system, exporters feel that they operate in an environment characterized by an excessive number of bureaucratic procedures which are expensive in terms of both time and money. The proliferation of documents necessary to comply with licensing requirements, and quality and price controls is costly. Lack of developed air and maritime transport infrastructure is also a serious problem. Others include the supply rigidities of local materials, as well as the lack of rigid quality standards.

Some economists consider engineering industry exports to be no more than a marginal issue. The engineering industries were originally conceived to be import substitution industries and therefore expected to attain allocative

efficiency as such in the first place before exploring the possibilities of outward looking expansion efforts. This is a technical prerequisite, because attaining efficiency at CIF prices--at which the IS industries output is evaluated--is prior to efficiency at FOB prices at which exports are evaluated. However, the possibility of efficient engineering industry units exists and exports may indeed be the only viable solution to overcoming the limitations of Egyptian markets and attaining the minimum efficient size for operation.

#### 4.5 Public Vs. Private, Discrimination Assessment

It is imperative to assess the extent to which the current policy environment discriminates against the operations of one of the two sectors. The findings of this section can be summarized as follows:

First, it was found that the mandatory pricing policy is not applicable to the private sector entities under consideration, but affects some of the public in the engineering subsector. This constitutes a constraint on the latter group profitability which is tantamount to discrimination against this sector. Furthermore, no preferential treatment for public sector entities were found as far as inputs pricing are concerned. Production and export subsidies are no longer in use in the engineering subsector, and input prices were reported by the Chamber of Engineering Industries to be charged at the current market rate across the board. The only exception was the relatively cheaper credit from NIB, a cost advantage to the public sector which should be viewed concurrently with their inability to increase output prices. Pricing for the private sector was governed more by the interlocking effect of competition from the public sector and the nominal tariff rates on the final product. Pressure on the input prices, whether from the ever-increasing cost of importables or from domestic inputs, would be equally felt by both private and public producers.

Second, trade barriers are independent from the public-private dichotomy. The relevant banned items (e.g washing machines..etc) are produced by both sectors, furthermore, the concessions granted for

assemblers are sensitive to the percentage of local content rather than the type of ownership. The public and private sector companies can both ask for items to be included in the banned import lists. The effectiveness or ineffectiveness of the barriers system is equally felt by both private and public producers.

Third, save for some imports financed from bilateral trade agreements, the foreign currency allocation system for both sectors draws from the same source, namely the commercial banks/free pool, and with the same rate of exchange. For the sample engineering industries, the system is time consuming for both, and if tight, both sectors suffer. It was thought that some difference might exist because some of the public sector companies have more access to export proceeds, but section 4.2 showed otherwise. No difference in the percentage of executed letters of credit to total approved imports between exporters and non-exporter companies was found. Similarly, discrimination in credit allocation in favor of the public sector was an issue of debate. Both sectors enjoy, with varying degree, access to preferential credit via different financial institutions; the public sector to NIB and the Private to the Industrial Development Bank; and both would use the commercial bank lines subject to their credit worthiness.

Fourth, export promotion policies were also independent from the type of ownership. The monetary incentives of the drawback system and the temporary admissions were applicable to both, if at all effective. Similarly was the used exchange rate to convert the export proceeds, their reimbursement, and the percentage of their retention in foreign currency. Both sectors are equally suffering from the bureaucratic environment governing the export activities (e.g licensing, quality and price controls), and the lack of developed infrastructure in related services (e.g maritime and air transport).

There are historical reasons behind the existence of a relatively large public sector in Egypt. Some of these reasons called for suppressing the relatively sizable private sector at large, hence discrimination. However, if

there is any current discrimination, it would be the result of the failure of Egyptian capitalism at large to differentiate between ownership and management of assets. The government, the owner and the manager, will naturally be more responsive to the problems of the public sector than those of the private. Though it is an evolutionary phenomenon rather than intentional discriminatory behavior, signs of taking the interest of the private sector into consideration are observed. The phenomenon is likely to gather momentum with the success of the private sector in accumulating surpluses which overtime are plowed back into the manufacturing sector.

## Section V

### Pricing and Production Strategies of Firms

This chapter presents an overview of the price and production strategies employed by some of the leading firms in the consumer durables engineering subsector and describes the market shares and monopoly structures for the various types of projects (see table 5.1 for a list of consumer durable products produced by the major public sector and private sector firms). Because of the different data sources, production figures are either actual or licensed. Moreover, there is a wide range of variation in the production figures between one year and the next. This is due to the fact that the sector relies heavily on the assembling of imported components on an irregular basis [Sakr, 1988]:

In most cases, companies undertake the assembling of imported CKD or SKD components, but the continuity of production will depend on the number of import transactions approved and concluded.

#### 5.1 Public and Private Sector Market Shares

It is imperative to gauge public and private sector market shares in order to assess the degree of competitiveness of each product. The most recent study [i.e. Sakr, 1988] revealed the following:

##### Refrigerators:

The public sector presently produces 70% of total consumption but possesses 52% of total licensed capacity. This indicates that the market is becoming increasingly open to the private sector and hence more competitive.

##### Deep Freezers:

The private sector presently produces 94% of total consumption and claims 90% of the total licensed capacity. Competition in the private sector is between the same five companies also producing refrigerators.

Table 5.1.

Consumer Durables Produced by Public Sector Companies  
and Corresponding Major Private Sector Companies.

Company	Quantity: Units																
	Product:	Refrig- erators	Deep- freezers	Washing machines	Coasters (cleaners)	Vacuum cleaners	Fans	Water heaters	Food mixers	Iron	TV	Radio/ cassette	Video	Lamps * 1000	Air con- ditioner	Bicycles	Motor- cycles
IDEAL		X	X	X		2,000				500							
TELENSA						600	X		11,400		X	X	X				
PHILIPS		X	X	X		7,000			14,700		X	X	X	X			
BASR TV							X				X	X	X				
EL TRAMCO																X	X
ALEX METALS				X	X			X									
KOLBAIN				X											X		
TOTAL "PS"		719,000	6,000	1251,000	20,000	8,400	35,000	15,000	28,100	500	1345,000	1137,000	15,000	88,000	24,400	85,000	30,000
MILITARY FACTORIES		15,300	470	138,500			87,400	47,600			35,100				640		
KIRIAZI		X	X														
ZANUSSE		X	X														
STLITAL		X	X														
IBERKA		X	X														
ALASKA		X	X														
MIRACO																	18,400
INTERNATIONAL A C																	17,250
POWER EGYPT																	40,500
EL SHERIF						15,000	100,000		22,000					X			
FRSH							5,000		50,000								
EL SAAD							150,000										
ARAB ELEC. INDUSTRIES						30,000	X		62,500								
ESTCO-EGYPT							100,000		40,000	80,000							
EGYPT-INTERNATIONAL									50,000								
OLYMPIC						30,000		150,000									
EL ARABY							X										
EG. DOM. INDS. (HOUR)				X													
T. ASHOUR (GIGI)				X													
GHC				X	X			50,000									
EASTERN TECHNOLOG				X													
SS. UNION				X													
ATLAS				X													
TOTAL "PV"		287,000	100,000	50,000	60,000	75,000	1355,000	1200,000	1224,500	80,000	0	0	0	76,150			
IMPORTS		24,500		36,600	40,000	37,200	1328,000	10,760	1310,100	1225,700	34,000	108,500			3,280		
TOTAL CONSUMPTION		1,025,800	106,470	1337,600	126,000	1107,200	1785,000	1213,400	1560,100	1325,700	1414,100	1243,500		103,680			
License ban (Y/N)		Y		Y	Y			Y (elec)				Y	Y	Y	Y	Y	Y
Quant. restrictn (Y/N)		Y	Y	Y	Y		Y				Y	Y		Y	Y	Y	Y
Tariff rate		100%	110%	110%	110%	110%	30%	110%	110%	30%	110%	110%	110%	30%	110%	20%	20%

Sources:  
1. Figures for vacuum cleaners, fans, food mixers, irons and air conditioners: M.F. Sahr, "Marketing Study of Air Conditioners and Household Electrical Appliances in Egypt," Sept. 1980.  
2. Figures for total PS: General Authority for Engineering Industries, Production Targets for 1982/83.  
3. Figures for Military Factories: FEL Annual Report, 1980/81.  
4. Figures for Imports, (I) PV (Vfrg.), A (I) Cash, (FRG), (FRG), (W/M): GDF, "Study on the Development of the Electrotechnical & Electronics Industry in Egypt," Vol. 9, Phase I, 1980.  
Notes:  
a) Figures for total PV (deep freezers, washing machines and coolers) are estimated from L.C. value figures.  
b) Total consumption figures are not always the summation of quoted figures for the different sectors.

Washing Machines (including dish washers):

The public sector presently produces 75% of the total consumption but claims only 35% of the licensed capacity. The private sector will have control of this market in the near future.

Stoves:

The military factories produce 53% of total estimated consumption, the public sector 8%, the private sector 24%, and the balance (15%), are imports.

Vacuum Cleaners:

The public sector produces only 9% of total consumption. The private sector produces 56% and the balance is imported.

Fans:

The private sector dominates the local production of fans, accounting for 78% of total production and 45% of consumption. The public sector provides less than 8% of local production and 5% of consumption.

Water Heaters:

While the public sector produces about 5% of consumption, the private sector produces 68% and imports account for the balance.

Food Mixers & Irons:

The public sector market share for these items is very small, less than 5% for mixers and negligible for irons. The private sector produces about 44% and 25% of consumption of mixers and irons respectively, the balance is covered by imports.

TVs, VCRs, Radio/Cassette Players:

The production of these items is predominantly allocated to the public sector. As mentioned in section two, the military factories produce some TVs but only on a limited and irregular basis. A recent private sector entry into the market is that of Atris/Samsung, an Egyptian-Korean joint venture. Its planned production capacity is two million television

components per year, scheduled to start production in 1992. An additional joint venture between Korea's Goldstar Electric Company and several local investors is scheduled to start production in 1990 with a capacity of 500,000 units.

#### Light bulbs:

The public sector (Philips) enjoys a near monopolistic position. Only El Sherif in the private sector produces light bulbs, but production has just commenced this year and capacity is limited.

#### Air-conditioners:

The public sector produces 24% of total consumption, whereas the private sector produces 73%. The figures show a fair degree of competition with this market between the four companies engaged in production.

#### Bicycles and Motorcycles:

The public sector enjoys a high degree of monopolistic control over the markets for these products. While there is no evidence of the private sector being engaged in the production of motorcycles, some statistics imply that the private sector may be producing about 10% of the total domestic production of bicycles - these however have not been identified.

In broad terms, it may be concluded that the public sector has near monopoly control over the production of TVs, VCRs, radio/cassette players, light bulbs, bicycles and motorcycles. In the production of refrigerators and washing machines, the public sector presently produces about 70-75% of total consumption but this proportion will decrease appreciably (to 35-50%) if the capacities already licensed for the private sector are realized in the future. For the other listed fields of production, there is at present a fair degree of competition in the market between the public and private sectors. In fact, for most of these items, ie. deep freezers, vacuum cleaners, fans, water heaters, food mixers, irons and air-conditions, the private sector has the controlling share.

### 5.2 Product Mix and Pricing Strategy

The production and pricing strategies of the individual firms depend on whether the firm is public or private and on the degree of competition for the product in the market, as discussed above. For public sector companies, some products, like refrigerators, washing machines and passenger cars in the engineering sector, are classified as basic commodities, and any change in their price requires the approval of an inter-ministerial committee chaired by the Prime Minister. (Price controls on engineering industries are discussed in detail in section 4.) For the other products, the companies have recently been granted more freedom to set their prices according to market conditions, but are still subject to ministerial approval. The pricing formula normally adopted is based on a cost-plus structure, covering operating costs at efficient operation and allowing for up to 15% return on capital employed [Handoussa, 1988; World Bank Report 7491-EGT].

For products in which the public sector has monopoly control, selling prices are usually determined in accordance with the above policy. Prices for some durables have moved upwards considerably during the past years under the pressures of the deteriorating exchange rate of the Egyptian pound against the dollar and the dollar against other hard currencies. An important criteria in the pricing process of such products, which acts as a check on price increases, are the prevailing economic conditions which have led to a marked decrease in demand and thus to an increase in inventory.

For products in which the public sector does not enjoy a monopolistic position and has to compete with private sector producers, an extra factor that determines selling prices is the competitors' strategies. This affects both prices and the company's product mix. Ideal, by far the major producer of refrigerators, accounting for more than 90% of their output in the public sector, uses the product mix and price structure shown in table 5.2 below.

Fifty seven percent of Ideal's production is in low-priced single door models. No other company is able to compete in this range. In comparison, Iberna's 10' 2-door refrigerator sells for L.E. 800 and Silta's 10.5' 2-door refrigerator for L.E. 910.

Table 5.2 Product Mix and Price Structure for Ideal's Refrigerators  
Size (ft)

Model	8'	8.7'	10'	10.4'	12'
Two doors colored	-	-	-	LE 744.6	LE 803.6
white	-	-	-	LE 767.5(f)	LE 769.85
Single door colored	LE 485.85	LE 556.85(f)	LE 584.35	-	-
white	-	-	LE 550.85	-	-
Total % of company production	10%	10%	37%	15%	28%

(f) = formica

Source : Field survey of prices Nov. 1989  
MOI for production

Koldair, another public sector company, has adopted a similar strategy in marketing its air-conditions. Its product mix and prices in relation to its competitors are given in Table 5.3.

Koldair's present product mix has in part been affected by the public sector system of price control. Because of price rigidities, public sector enterprises have, rather than seeking permission for price increases, resorted to making modifications on their products, both minor changes (e.g. packaging, new brand name, size) and major changes (e.g. new product, more sophisticated product attributes). The introduction of the modified and remote control versions of the window type air-conditions is an example.

The private sector engineering industries are free to set the prices of their goods in accordance with market forces. However, as stated in section 4, the market price for all private companies is affected by two intervening factors: the price of a similar product in the public sector (which tends to depress their prices), and the level of protection from imports (which determines margins of increase in their prices). For products in which the public sector does not account for a notable share of the market, the degree

of competition between the various private sector companies producing the product acts as the main force behind depressing their prices.

Table 5.3 Sales of Koldair for 1986/87

	Quantity (units)	Percent of Total
AC window 2HP (amended)	13,828	58%
AC window 2HP (modified)	3,336	14%
AC window 2HP (remote control)	400	2%
AC window 1.5HP	4,047	17%
		---
	Subtotal	91%
AC split 21/4HP	1,260	5%
AC split 3HP	170	1%
AC split 15000BTU	729	3%
		--
	Subtotal	9%
<hr/>		
Total units	23,770	100%

Representatives of two private sector producers of refrigerators and deep-freezers have indicated in interviews that once granted a license to manufacture a certain line of products there are no further restrictions on their product mix within that line. They have the freedom to determine both their product mix and prices according to market conditions.

Private sector companies do not rely on market studies to construct their product mix. Instead, preliminary choice of product mix is based on other factors. Private sector companies avoid as much as possible the product mix produced by the public sector. When a product is similar to that produced in the public sector, usually rely on the production of a quality product. Moreover, they tend to vary and continuously introduce new products and make product production decisions based on the sales figures of the previous year.

The pricing strategy normally followed by private sector companies is based on a formula that takes into account the cost of manufacture at one end and the selling price of competitors on the other. The higher prices for their products are said to account for more superior, and hence, more expensive,

components. (Table 5.4 is a comparison of prices for refrigerators produced by different manufacturers.)

Table 5.4 Pricing Profile of Locally Produced Refrigerators (1989)

Company	Size (ft)							
	3.5'	10'	10.5'	12'	13'	14'	14.5'	16'
Siltal	-	-	LE 910	-	LE 1295	-	-	LE 1445
Iberna	LE 555	LE 800	-	-	-	LE 1550	-	-
Kiriazzi	-	-	-	LE 960	-	-	-	LE 1650*
Zanussi	-	-	-	LE 960	-	-	-	-
Alaska	-	-	-	-	-	LE 1150	-	-
Military factories	-	-	-	-	LE 1395	-	-	-
Ideal	-	LE 584	LE 745	LE 803	-	-	-	-
Philips	-	-	-	-	-	LE 1495	-	-

\* with defroster

Source: Field Survey, Nov. 1989.

The same strategy also applies, as discussed earlier, to air conditioners. The private sector companies in this field avoid the lower cost models manufactured by Koldair and concentrate more on production of more sophisticated window models and especially on split units. While the production of split units by Koldair constituted 9% of its total quantity output of AC's, for Miraco they represented about 70%. A comparison of prices for air conditioners for the four companies which manufacture them is presented in Table 5.5. The price differentials are claimed to account for more superior components.

Table 5.5 Price Comparison of Locally Produced Air Conditioners

Capacity	Koldair	Miraco	Intern. for AC	Power
<b>Window Units</b>				
1 1/2 HP	1155	---	---	---
2 HP amended	1350	---	---	---
2 HP modified	1530	1795	---	---
2 HP with remote control	1942	---	2500	---
2 1/4 HP with remote control	---	---	---	2650
3 HP	---	---	---	3150
<b>Split Units</b>				
1 1/2 HP	---	2250	---	---
1.75 HP	2050	---	---	---
2 1/4 HP	2208	2865	3460-3700 (w/o MC)	---
			4190-4800 (w. MC)	
3 HP	2806	3565	4240-5700 (w/o MC)	---
			5150-5700 (w. MC)	
3 HP 1/2	---	---	---	3785

w. MC = with microcomputer

w/o MC = without microcomputer

Source : M.F. Sakr, "Marketing Study of Air Conditioners and HEA in Egypt," Sept. 1988.

## Section VI Financial and Efficiency Analysis

The purpose of this section is to examine the financial status of the sample group of public sector companies and analyze their rates of efficiency. The study is divided into two main parts. The first part, the financial analysis, focuses on the balance sheets and current operations accounts, while the second, the efficiency analysis, examines both productivity indicators and financial ratios.

The analyses focus on general trends, highlight exceptions, identify problems and compare performance rather than giving a separate detailed evaluation of each company. The analyses are performed by means of an in-house computerized financial analysis model. Balance sheet and income statement entries are provided and the worksheet computes component percentages, annual growth rate and various productivity and financial ratios<sup>11</sup>.

### 6.1. Public Sector Financial Analysis

Six-year comparative balance sheets and current operation accounts for the nine public sector engineering companies are given in Appendix H.

#### 6.1.1. Balance Sheets

A fair comparison of the present status of the companies under analysis and their levels of activity are depicted from both balance sheets and current operation account. The salient features of these figures and their

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<sup>11</sup> The different terms and ratios used in the worksheet are defined in Appendix F. The structure of the input data is based on the "Performance Evaluation Reports" issued by the Ministry of Industry according to the "Unified Accounting System" employed in the public sector. Information gathered for the private sector has been modified to fit, as much as possible, the same model in order to afford a reasonable basis for comparison. The layout of the tables and their explanation are given in Appendix G.

corresponding component percentages for the nine public sector companies--as of June 30, 1988--are given in tables 6.1 and 6.4, respectively. The development of total assets for the nine public sector companies over the period 1982/83 - 1987/88 is demonstrated in table 6.5. In most cases in this section, the analysis relates the change rate of the specific balance sheet item with that of the activity level (i.e sales) and assets. The relation between the growth in assets--fixed and total--and that of sales over the period 1982/83 1987/88 is as follows:

Company	Fixed Assets	Total Assets	Sales
Telimisr	202%	112%	13%
Philips	107%	56%	31%
Nasr TV	265%	199%	67%
El Tramco	309%	197%	101%
Sabi	24%	151%	96%
Cairo Metals	24%	69%	69%
Alex Metals	23%	143%	342%
Koldair	36%	72%	130%

The patterns observed over the period are as follows:

#### Fixed Assets

Fixed assets in this section are equivalent to the summation of fixed assets and projects under execution. They represent one of the key factors in the production process and, given the availability of material and labor inputs, they constitute the primary explanatory variables for production capacity and product quality. Furthermore, the magnitude of expenditure in fixed assets reflects the capital investment decisions made by, or imposed on, the company. The growth in this account in the nine public sector companies during the period is given in table 6.6.

The growth in the fixed assets of the three electronics companies and El Tramco is much higher than the corresponding growth in their sales. This implies that either a) capacity is underutilized, and/or b) a considerable portion of fixed assets is still in the digestion period

Engineering Industries Subsector Study

**Table 6.1. BALANCE SHEETS OF NINE PUBLIC SECTOR COMPANIES**  
 FY 1987/88  
 " Million L.E."

	<b>Ideal</b>	<b>Telimisr</b>	<b>Philips</b>	<b>Nasr TV</b>	<b>El Tramco</b>	<b>Sabi</b>	<b>Cairo Metals</b>	<b>Alex. Metals</b>	<b>Koldair</b>
<b>Assets:</b>									
Fixed assets	102.8	18.0	39.3	35.7	38.1	31.8	33.6	15.9	11.8
Projects under construction	9.7	8.6	2.9	1.5	18.0	2.0	3.0	0.6	1.0
Inventory	151.2	49.0	62.6	62.2	48.5	30.4	20.9	15.6	33.8
Financial investments	12.6	1.8	0.9	1.4	0.2	0.5	0.2	2.1	0.0
Accounts receivable	90.4	44.5	23.0	53.1	29.9	9.8	3.3	13.6	12.8
Cash on hand	8.5	62.2	0.8	10.4	2.7	0.4	0.7	0.3	1.0
Transferred loss	11.5	0.0	3.4	8.8	0.0	0.8	15.9	15.8	0.0
<b>Total</b>	<b>386.7</b>	<b>184.1</b>	<b>132.9</b>	<b>173.1</b>	<b>137.4</b>	<b>75.7</b>	<b>77.6</b>	<b>63.9</b>	<b>60.4</b>
<b>Liabilities:</b>									
Capital	3.0	5.5	6.5	6.3	14.1	10.4	33.6	14.8	9.1
Reserves	43.4	9.8	6.5	5.7	4.4	1.3	2.7	2.0	1.0
Provisions	69.8	16.8	29.2	29.2	15.2	12.8	16.0	7.5	8.3
Long-term loans	4.7	1.1	1.1	10.5	29.8	16.9	6.7	4.7	2.0
Credit banks	110.0	99.4	67.7	110.1	56.3	24.8	12.1	25.2	20.0
Accounts payable	155.8	51.5	21.9	11.3	17.8	9.6	6.5	9.6	20.0
<b>Total</b>	<b>386.7</b>	<b>184.1</b>	<b>132.9</b>	<b>173.1</b>	<b>137.6</b>	<b>75.8</b>	<b>77.6</b>	<b>63.8</b>	<b>60.4</b>

Engineering Industries Subsector Study

**Table 6.2. COMPONENT BALANCE SHEETS OF NINE PUBLIC SECTOR COMPANIES**  
 FY 1987/88  
 (percent)

Items	Ideal	Telimisr	Philips	Nasr TV	El Tramco	Sabi	Cairo Metals	Alex. Metals	Koldair
<b>Assets:</b>									
Fixed assets	26.6	9.8	29.6	20.6	27.7	41.9	43.3	24.9	19.5
Projects under construction	2.5	4.7	2.2	0.9	13.1	2.7	3.9	0.9	1.6
Inventory	39.1	26.6	47.1	35.9	35.3	40.1	26.9	24.4	56.0
Financial investments	3.3	1.0	0.7	0.8	0.2	0.6	0.3	3.2	0.0
Accounts receivable	23.4	24.2	17.3	30.7	21.7	13.1	4.3	21.3	21.2
Cash on hand	2.2	33.8	0.6	6.0	1.9	0.5	0.9	0.5	1.6
Transferred loss	3.0	0.0	2.6	5.1	0.0	1.1	20.4	24.7	0.0
<b>Total</b>	<b>100.1</b>	<b>100.1</b>	<b>100.1</b>	<b>100.0</b>	<b>99.9</b>	<b>100.0</b>	<b>100.0</b>	<b>99.9</b>	<b>99.9</b>
<b>Liabilities:</b>									
Capital	0.0	3.0	4.9	3.6	10.2	13.8	43.3	23.2	15.1
Reserves	11.2	5.3	4.9	3.3	3.2	1.8	3.5	3.2	1.7
Provisions	18.1	9.1	22.0	16.9	11.0	16.9	20.7	11.8	13.7
Long-term loans	1.2	0.6	0.9	6.1	21.6	22.3	8.6	7.4	3.3
Credit banks	28.4	54.0	51.0	63.7	41.0	32.7	15.6	39.4	33.1
Accounts payable	40.3	28.0	16.5	6.5	12.9	12.6	8.3	15.0	33.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.2</b>	<b>100.1</b>	<b>99.9</b>	<b>100.1</b>	<b>100.0</b>	<b>100.0</b>	<b>100.1</b>

50

## Engineering Industries Subsector Study

**Table 6.3. CURRENT OPERATIONS ACCOUNTS OF NINE PUBLIC SECTOR COMPANIES**  
 FY 1987/88  
 "Million L.E."

Items	Ideal	Telimisir	Philips	Nasr TV	EI-Tranco	Sabi	Cairo Metals	Alex. Metals	Koldair
<b>Revenue:</b>									
Income from operations	273.2	103.5	81.3	110.3	67.9	28.6	28.5	38.0	43.4
Other income	10.5	5.2	6.1	1.4	1.5	0.6	1.3	0.9	1.0
<b>Total</b>	<b>283.7</b>	<b>108.7</b>	<b>87.4</b>	<b>111.7</b>	<b>69.4</b>	<b>29.2</b>	<b>29.8</b>	<b>38.9</b>	<b>44.4</b>
<b>Expenses:</b>									
Wages	39.6	9.5	9.0	10.9	10.9	6.8	9.8	5.7	10.5
Material inputs	185.1	67.3	51.3	63.0	37.3	14.2	14.1	21.6	19.9
Service inputs	5.7	2.0	3.6	1.5	1.0	0.7	0.4	0.9	1.9
Depreciation	7.4	1.2	4.7	3.1	1.1	2.1	2.6	1.3	0.9
Interest	6.1	9.4	7.0	15.7	5.5	4.0	1.6	3.4	2.5
Income tax	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Other expenses	51.2	18.9	15.3	16.8	10.3	2.3	2.9	7.8	8.2
<b>Total</b>	<b>295.1</b>	<b>108.3</b>	<b>90.9</b>	<b>111.0</b>	<b>66.5</b>	<b>30.1</b>	<b>31.4</b>	<b>40.7</b>	<b>44.0</b>
<b>Surplus/Deficit</b>									
Before tax	-11.5	0.5	-3.4	0.7	3.2	-0.8	-1.5	-1.8	0.4
After Tax	-11.5	0.5	-3.4	0.6	2.9	-0.8	-1.5	-1.8	0.3

## Engineering Industries Subsector: Study

**Table 6.4. COMPONENT CURRENT OPERATIONS ACCOUNTS OF NINE PUBLIC SECTOR COMPANIES**  
 FY 1987/88  
 (percent)

Items	Ideal	Telimisir	Philips	Nasr TV	El-Tranco	Sabi	Cairo Metals	Alex. Metals	Koldair
<b>Revenue:</b>									
Income from operations	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Other income	3.8	5.1	7.5	1.3	2.2	2.2	4.6	2.4	2.3
<b>Total</b>	<b>103.8</b>	<b>105.1</b>	<b>107.5</b>	<b>101.3</b>	<b>102.2</b>	<b>102.2</b>	<b>104.6</b>	<b>102.4</b>	<b>102.3</b>
<b>Expenses:</b>									
Wages	14.5	9.2	11.1	9.9	16.1	23.8	34.2	15.1	24.3
Material inputs	67.8	65.0	63.1	57.2	54.9	49.7	49.5	56.9	45.8
Service inputs	2.1	2.0	4.4	1.4	1.5	2.6	1.5	2.3	4.4
Depreciation	2.7	1.2	5.7	2.8	1.7	7.3	9.0	3.5	2.1
Interest	2.2	9.0	8.6	14.2	8.0	13.8	5.6	8.8	5.8
Income tax	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.3
Other expenses	18.7	18.2	18.8	15.2	15.1	7.9	10.0	20.6	18.9
<b>Total</b>	<b>108.0</b>	<b>104.6</b>	<b>111.7</b>	<b>100.7</b>	<b>97.8</b>	<b>105.1</b>	<b>109.8</b>	<b>107.2</b>	<b>101.6</b>
<b>Surplus / Deficit</b>									
Before tax	-4.2	0.5	-4.2	0.6	4.8	-2.9	-5.1	-4.9	0.9
After Tax	-4.2	0.5	-4.2	0.6	4.2	-2.9	-5.1	-4.9	0.6

Engineering Industries Subsector Study

**Table 6.5. DEVELOPMENT OF TOTAL ASSETS OF NINE PUBLIC SECTOR COMPANIES**  
 "Million L.E."

<b>Company</b>	<b>1982/83</b>	<b>1983 /84</b>	<b>1984 /85</b>	<b>1985 /86</b>	<b>1986 /87</b>	<b>1987 /88</b>	<b>Period Growth %</b>
<b>Ideal</b>	173.6	213.1	224.7	255.9	306.8	386.7	123%
<b>Telimisr</b>	86.8	100.8	126.8	120.7	151.9	184.0	112%
<b>Philips</b>	85.1	101.9	116.2	99.8	104.4	132.9	56%
<b>Nasr TV</b>	57.8	77.1	114.3	122.7	185.5	173.0	199%
<b>El-Tranco</b>	46.3	67.2	78.7	84.9	95.3	137.5	197%
<b>Sabi</b>	30.2	41.3	50.3	53.3	62.8	75.9	151%
<b>Cairo Metals</b>	45.8	54.4	63.5	65.0	66.8	77.6	69%
<b>Alex. Metals</b>	26.3	31.0	38.5	43.2	57.7	63.9	143%
<b>Koldair</b>	35.1	33.4	38.0	43.5	47.2	60.4	72%

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Engineering Industries Subsector Study

**Table 6.6. FIXED ASSETS AS PERCENT OF TOTAL ASSETS  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983/84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Assets %											
<b>Ideal</b>	45.2	26.0	52.3	24.5	64.7	28.8	98.1	38.3	109.2	35.6	112.5	29.1	149%
<b>Telimisr</b>	8.8	10.1	11.1	10.9	15.6	12.2	19.0	15.8	21.1	13.9	26.6	12.5	202%
<b>Philips</b>	20.4	24.0	24.6	24.1	29.7	25.6	33.1	33.2	35.1	33.6	42.2	31.8	107%
<b>Nasr TV</b>	10.2	17.7	11.4	14.7	15.6	13.6	27.4	22.3	37.7	20.4	37.2	21.5	265%
<b>El-Trameco</b>	13.7	29.6	17.7	26.5	23.1	30.6	29.7	34.9	38.7	40.5	56.1	40.8	309%
<b>Sabi</b>	15.1	49.7	20.6	50.0	26.2	52.1	29.6	55.6	32.7	52.0	33.8	44.6	124%
<b>Cairo Metals</b>	29.5	64.0	32.9	60.5	33.5	52.9	34.4	53.0	35.2	52.7	36.6	47.2	24%
<b>Alex. Metals</b>	13.4	50.9	14.2	45.8	15.1	39.3	16.1	37.2	16.5	28.5	16.5	25.8	23%
<b>Koldair</b>	9.4	27.0	10.0	30.0	10.8	28.3	11.5	26.3	12.0	25.4	12.8	21.1	36%

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(i.e. projects under execution). On the other hand, the figures for Cairo Metals, Alex Metals and Koldair reveal the opposite (i.e. growth in fixed assets is much lower than their growth in sales), implying better capacity utilization, and a higher portion of fixed assets in actual operation. The component percentages of fixed assets to total assets are shown in table 6.6.

A substantial amount of total assets (over 40%) is tied up in fixed assets at El Tramco, Cairo Metals and Sabi. Meanwhile among the three relatively similar companies--Telimistr, Philips and Nasr TV--it was the latter which had the lowest proportion of investment in fixed assets, ranging between about 10 and 16% during the period. Philips, in comparison to the other two companies, shows the highest investment in fixed assets, 24-34% of total assets. This is most likely due to the expenditures in capital equipment required for a more varied product mix e.g. electric bulbs, refrigerators. It is noteworthy that there has been a considerable increase in fixed assets in Nasr TV in 1985/86 and 1986/87, of 75% and 38%, respectively. This may be the result of an investment decision based on the company's performance in the preceding three years.

#### Inventory

Total inventory levels for the public sector companies during the period 1982/83 to 1987/88 are given in table 6.6. A detailed breakdown of inventory is given in the worksheets in Appendix H. Additionally, table 6.8 identifies the percentage of total inventory allocated to raw materials and finished goods.

It is clear from Table 6.7 that the percentage of total assets tied up in inventories is generally high. In Koldair, for instance, it represents between about 45% and 56% of total assets during the period. In Ideal it has jumped from an average of 23% in the first three years to an average of 37.5% in the last three years, meanwhile, in Philips the average total inventory level during the six-year period is 43.5%, the highest of the three electronic companies. In contrast, the percentage in Telimistr has

Engineering Industries Subsector Study

**Table 6.7. TOTAL INVENTORY AS PERCENT OF TOTAL ASSETS  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Assets %											
<b>Ideal</b>	46.4	26.7	41.8	19.6	50.2	22.3	78.2	30.6	131.7	42.9	151.2	39.1	226%
<b>Telimisr</b>	39.7	45.8	38.4	38.0	25.8	20.3	5.5	4.6	29.9	19.7	49.0	26.6	23%
<b>Philips</b>	46.2	54.3	40.8	40.0	47.1	40.6	35.4	35.5	45.4	43.5	62.6	47.1	36%
<b>Nasr TV</b>	22.9	39.7	31.2	40.5	40.3	35.3	36.1	29.4	53.8	29.0	62.2	35.9	171%
<b>El-Trameco</b>	21.4	46.3	30.2	45.0	25.9	34.1	28.7	33.8	31.8	33.4	48.5	35.3	127%
<b>Sabi</b>	13.1	43.3	17.5	42.4	19.1	37.9	18.4	34.6	19.4	30.9	30.4	40.1	132%
<b>Cairo Metal</b>	8.5	18.4	10.4	19.1	11.2	17.7	11.9	18.2	12.2	18.3	20.9	26.9	146%
<b>Alex. Metal</b>	4.1	15.6	4.6	14.9	7.8	20.2	7.5	17.4	10.4	18.0	15.6	24.4	280%
<b>Koldair</b>	19.3	55.1	15.7	46.9	18.0	47.3	22.6	52.0	21.4	45.4	33.8	56.0	75%

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decreased from an average of 42% in the first two years to an average of about 23% in the last two years. The lower figures, 4.6% and 19.7% for 1985/86 and 1986/87 respectively, are most likely due to inaccessibility to foreign currency reserves necessary for importables; table 4.5 indicated that 33% of Telemisr's requests for letters of credit were rejected as of the end of March 1989.

Notwithstanding this exposition, operational parameters such as inventories should be evaluated in relation to a tangible indicator of the level of operation. The most objective of such indicators in an industrial enterprise is sales. For the study period the percent of growth in inventories for the nine companies compares with the equivalent growth in income from operations (sales) as follows:

Percentage of Growth during 1982/83 - 1987/88

Company	Inventory	Sales
Ideal	226%	143%
Telimisr	23%	13%
Philips	36%	31%
Nasr TV	171%	67%
El Tramco	127%	101%
Sabi	132%	96%
Cairo Metals	146%	69%
Alex Metals	280%	342%
Koldair	75%	130%

It is evident from the above figures that with the exception of only Koldair and Alex Metals, growth in inventories has surpassed growth in sales. This unproportional increase implies that there has been a relative undue accumulation of inventories. It is clear from Table 6.8 that raw materials constitute by far the greatest proportion of total inventory. The build-up in such inventories is mainly due to a) the difficulties usually encountered in public procurement practices: the allocation and acquisition of foreign currency, procurement procedures, and import requirements/procedures, and b) hedging against inflation. The table also reveals that the increase in the finished goods inventories of

Engineering Industries Subsector Study

**Table 6.8. RAW MATERIALS (RM) & FINISHED GOODS (FG) AS PERCENT OF TOTAL ASSETS  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %	
	RM %	FG %	RM %	FG %										
<b>Ideal</b>	80	12	73	16	73	15	84	5	90	3	86	4	250%	16%
<b>Telimisr</b>	94	1	95	1	96	0	83	2	94	0	92	4	20%	300%
<b>Philips</b>	57	32	58	31	56	35	70	18	80	9	77	13	80%	-47%
<b>Nasr TV</b>	60	20	71	13	67	20	59	14	84	3	50	29	129%	293%
<b>El-Tranco</b>	58	27	51	32	60	24	61	20	85	3	79	11	213%	-8%
<b>Sabi</b>	59	18	58	21	57	21	49	28	53	26	60	20	138%	169%
<b>Cairo Metals</b>	61	14	59	18	60	14	50	22	50	21	49	29	98%	415%
<b>Alex. Metals</b>	68	9	59	14	45	35	52	27	57	22	50	38	176%	1430%
<b>Koldair</b>	67	8	71	8	70	11	64	25	72	12	84	7	121%	38%

Nasr TV, Cairo Metals, and Alex Metals represent a considerable portion of total inventory in these companies.

Receivables

Total receivables (items 5 and 6 in the worksheets) for the nine public sector companies during the period 1982/83 - 1987/88 are given in Table 6.9. The growth in receivables in relation to sales over the study period are as follows:

Company	Receivables	Sales
Ideal	963%	143%
Telimisr	333%	13%
Philips	72%	31%
Nasr TV	590%	67%
El Tramco	193%	101%
Sabi	513%	96%
Cairo Metals	43%	69%
Alex Metals	491%	342%
Koldair	178%	130%

With the exception of Cairo Metals, the growth in receivables is greater than the growth in sales. In most of the companies the difference is striking, particularly for electronics and household hardware. The phenomenon is explained by measures to face tough competition in these industries, i.e., to increase credit sales as well as extend the receivables terms.

Cash

The cash position of the nine public sector companies is given in Table 6.10 for the period 1982/83 - 1987/88. In general, the cash situation is weak and could cause serious cashflow bottlenecks. With the exception of Ideal, Telimisr and Nasr TV the amount of cash available to the companies or its percentage of total assets is insignificant.

Ideal enjoyed a strong cash position during the first four years. In fact it is clear that these cash balances were too high to be left uninvested in more efficient income generating assets. It appears that the surplus was invested to increase the inventory levels of the company in succeeding years. Similarly, Telimisr has a high percentage of its total

51

Engineering Industries Subsector Study

**Table 6.9. TOTAL ACCOUNTS RECEIVABLE AS PERCENT OF TOTAL ASSETS  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Assets %											
<b>Ideal</b>	8.5	4.9	12.0	5.7	21.1	9.4	19.4	7.6	32.2	10.5	90.4	23.4	963%
<b>Telimisir</b>	10.3	11.8	21.6	21.5	19.3	15.3	21.4	17.7	35.4	23.4	44.6	24.2	333%
<b>Philips</b>	13.4	15.8	33.5	32.9	37.8	32.6	30.2	30.2	23.0	22.1	23.0	17.3	72%
<b>Nasr TV</b>	7.7	13.2	19.3	25.0	32.5	28.4	30.4	24.8	43.6	23.5	53.1	30.7	590%
<b>El-Tranco</b>	10.2	21.9	18.6	27.6	26.4	34.9	24.2	28.5	23.4	24.6	29.9	21.7	193%
<b>Sabi</b>	1.6	5.3	2.7	6.5	4.5	8.9	4.7	8.9	5.4	8.5	9.8	13.1	513%
<b>Cairo Metal</b>	2.3	5.0	1.6	3.0	2.3	3.7	3.1	4.7	3.2	4.8	3.3	4.3	43%
<b>Alex. Metal</b>	2.3	8.9	5.1	16.3	6.4	16.6	6.3	14.7	8.6	14.9	13.6	21.3	491%
<b>Koldair</b>	4.6	13.3	5.0	14.8	6.5	17.1	8.1	18.8	11.4	24.2	12.8	21.2	178%

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Engineering Industries Subsector Study

**Table 6.10. CASH ON HAND & IN BANK AS PERCENT OF TOTAL ASSETS  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Assets %											
<b>Ideal</b>	67.3	38.8	98.1	46.1	76.9	34.2	48.7	19.0	21.2	6.9	8.5	2.2	-87%
<b>Telimisr</b>	27.5	31.7	28.9	28.7	65.2	51.4	73.0	60.5	63.8	42.0	62.2	33.8	126%
<b>Philips</b>	4.5	5.3	2.4	2.4	1.0	0.9	0.4	0.0	0.0	0.0	0.8	0.0	-82%
<b>Nasr TV</b>	16.7	28.8	14.4	18.7	24.9	21.8	27.3	22.2	39.6	21.3	10.4	6.0	-38%
<b>El-Tranco</b>	0.8	1.8	0.3	0.5	0.1	0.1	0.1	0.1	1.2	1.2	2.7	1.9	228%
<b>Sabi</b>	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	4.9	7.7	0.4	0.5	0%
<b>Cairo Metal</b>	0.3	0.7	1.1	2.1	2.2	3.4	0.9	1.3	1.6	2.4	0.7	0.9	130%
<b>Alex. Metal</b>	0.2	0.9	0.3	1.1	0.2	0.4	0.4	1.0	6.8	11.8	0.3	0.5	22%
<b>Koldair</b>	0.4	1.2	0.6	1.7	0.6	1.6	0.4	0.9	1.5	3.2	1.0	1.6	118%

51

assets in cash, mainly due to lower levels of inventory. In the cases of both Ideal and Telemisr, it is difficult to judge whether piling up inventory or maintaining large cash balances can be regarded as the better utilization of these cash balances. The inflationary savings gained by inventory pileup can easily equal other potential income generated by investment in alternative assets. On the other hand, cash bottlenecks are very expensive to rectify at the current debit interest rates, and large cash balances can be of great value.

### Net Worth

Net worth as used here refers to the summation of capital, reserves, and provisions (items 10, 11 and 12 in the worksheets). Net worth figures and their percentage of total assets (total footings) are given in Table 6.11 for the nine public sector companies during the six-year period. In relation to total footings, net worth falls within the 30-40% range. This corresponds to a relatively high level of leverage (60-70%). The percentages of growth in net worth compared to growth in total footings for the period are as follows:

	Net Worth	Total Assets
Ideal	69%	123%
Telemisr	11%	112%
Philips	38%	56%
Nasr TV	72%	199%
El Tramco	55%	197%
Sabi	57%	151%
Cairo Metals	11%	69%
Alex Metals	59%	143%
Koldair	52%	72%

The difference in growth between both net worth and total footings reflects the degree to which each company has resorted to direct or indirect borrowing to cover its increase in total assets. Cairo Metals is the only exception to that trend. Its net worth ratio to total footings has varied between 50% and 75% during the period. As is evident in tables 6.1 and 6.2, this is due to the fact that Cairo Metals has the largest capital of the sample companies.

Engineering Industries Subsector Study

**Table 6.11. NET WORTH AS PERCENT OF TOTAL ASSETS  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Assets %											
<b>Ideal</b>	68.6	39.5	82.3	38.6	95.6	42.5	104.6	40.9	109.5	35.7	116.2	30.1	69%
<b>Telimisr</b>	29.0	33.4	38.2	38.0	44.6	35.1	41.2	34.1	27.7	18.2	32.1	17.4	11%
<b>Philips</b>	30.6	36.0	35.1	34.4	43.0	37.0	44.5	44.6	42.6	40.8	42.2	31.8	38%
<b>Nasr TV</b>	24.0	41.5	29.6	38.5	35.8	31.3	32.8	26.7	37.9	20.5	41.2	23.8	72%
<b>El-Tranco</b>	21.7	46.9	24.5	36.5	27.5	34.9	32.8	38.6	32.0	33.7	33.7	24.4	55%
<b>Sabi</b>	15.6	51.4	17.8	43.0	19.3	38.3	21.7	40.8	22.9	36.5	24.5	32.5	57%
<b>Cairo Metal</b>	24.3	52.6	27.7	50.8	32.2	50.6	48.2	74.1	50.6	75.7	52.3	67.5	115%
<b>Alex. Metal</b>	15.3	58.0	15.6	50.3	17.2	44.5	22.3	51.6	23.5	40.7	24.3	38.2	59%
<b>Koldair</b>	12.1	34.3	12.7	38.0	13.6	35.8	16.0	36.8	18.2	38.6	18.4	30.5	52%

### Credit Banks

Though this term under the Unified Accounting System constitutes both short-term loans and bank over drafts, in the sample companies it mainly represents bank overdrafts (over 95%). Obviously, this is bound to entail a higher interest charge. Bank borrowing for the nine public sector companies during the six years investigated is given in Table 6.12. Credit banks growth rates during the period relative to sales growth are as follows:

Percentage of Growth during 1982/83 - 1987/88

Company	Credit Bank	Sales
Ideal	inf.	143%
Telimisr	767%	13%
Philips	104%	31%
Nasr TV	18,000%	67%
El Tramco	549%	101%
Sabi	566%	96%
Cairo Metals	16%	69%
Alex Metals	615%	342%
Koldair	170%	130%

The comparison is striking. As in the previous section, Cairo Metals is the only exception, as its net worth is large enough to avoid resorting to credit lines. Nasr TV bank borrowing in relation to total assets has skyrocketed during the period from 1.1% in 1982/83 to 63.7% in 1987/88. It is noteworthy that this marked increase in the last three years of analysis coincides with the company build-up of inventories and an increase in fixed assets.

The case of Telimisr is somewhat inconsistent. Borrowing has increased significantly in the last two years of the period to 55% of total assets while its cash position as shown in Table 6.10 is substantial. Taking into consideration that debit interest charged on overdrafts is considerably higher than credit interest payable on deposits, sizable savings could have been realized by reducing the credit bank balances.

Engineering Industries Subsector Study

**Table 6.12. CREDIT BANKS AS PERCENT OF TOTAL ASSETS  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Assets %											
<b>Ideal</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.5	8.6	110.0	28.4	-
<b>Telimisr</b>	11.5	13.2	0.3	0.3	5.2	4.1	15.8	13.1	84.8	55.8	99.4	54.0	767%
<b>Philips</b>	33.2	39.1	47.7	45.8	46.3	39.8	32.5	32.6	36.8	35.2	67.7	51.0	104%
<b>Nasr TV</b>	0.6	1.1	3.0	3.9	27.2	23.8	62.2	50.7	112.9	60.9	110.1	63.7	19250%
<b>El-Tranco</b>	8.7	18.8	20.8	30.9	25.7	34.0	21.2	25.0	23.4	24.5	56.3	41.0	549%
<b>Sabi</b>	3.7	12.3	7.8	19.0	10.1	20.2	9.6	18.1	15.4	24.4	24.8	32.7	566%
<b>Cairo Metal</b>	10.4	22.6	15.8	29.1	19.3	30.4	4.4	6.7	4.9	7.4	12.1	15.6	16%
<b>Alex. Metal</b>	3.5	13.4	6.2	19.9	10.0	26.1	10.2	23.5	22.6	39.2	25.2	39.4	615%
<b>Koldair</b>	7.4	21.1	7.7	23.0	12.6	33.1	14.9	34.2	11.7	24.8	20.0	33.1	170%

51

### Payables

Total payables (items 15 and 16 in worksheet) for the nine public sector companies during the six-year period are given in Table 6.13. The growth in payables relative to growth in sales for the study period is as follows:

#### Percentage of Growth during 1982/83 - 1987/88

Company	Payables	Sales
Ideal	49%	143%
Telimisr	12%	13%
Philips	16%	31%
Nasr TV	-62%	67%
El Tramco	45%	101%
Sabi	113%	96%
Cairo Metals	0	69%
Alex Metals	129%	342%
Koldair	44%	130%

With the exception of Sabi, and to some extent Telimisr, the growth in payables in the companies has not matched the growth in sales. This implies, as is evident in Table 6.13, that the proportion of payables has generally decreased, i.e., the companies are now paying sooner for a greater proportion of expenditure than they used to. This is particularly clear for Nasr TV where the proportion declined from 50.9% in 1982/83 to 6.5% in 1987/88. This may be due to stricter credit terms offered by the suppliers, mostly foreign, because of a weak credit rating.

### 1.2. Current Operations Accounts

The main revenues and expense items, and the profitability of the nine public sector companies during the period 1982/83 to 1987/88 were reviewed. The findings are presented below:

#### Sales Revenue

Sales revenue includes income from operations and subsidies (items 18 and 19 in the worksheet). This reflects more accurately the actual ability of the entity to generate income from its operations. Other income (item 21 in the worksheet) includes various revenues other than from manufacturing activity. It is to be noted that no subsidies were received by the

Engineering Industries Subsector Study

**Table 6.13. TOTAL ACCOUNTS PAYABLE AS PERCENT OF TOTAL ASSETS  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Assets %											
<b>Ideal</b>	104.8	60.3	130.5	61.2	128.9	57.3	151.1	59.1	166.1	54.1	155.8	40.3	49%
<b>Telimisr</b>	45.9	52.9	61.9	61.4	73.3	60.2	63.0	52.2	38.7	25.5	51.5	28.0	12%
<b>Philips</b>	18.8	23.0	16.5	16.2	23.7	20.3	19.1	19.1	22.4	21.5	21.9	16.5	16%
<b>Nasr TV</b>	29.5	50.9	40.3	52.2	46.7	40.9	21.7	17.7	21.8	11.7	11.3	6.5	-62%
<b>El-Tranco</b>	12.3	26.6	15.6	23.1	17.5	23.0	16.9	19.9	17.9	18.8	17.8	12.9	45%
<b>Sabi</b>	4.5	14.9	5.4	12.8	7.5	14.9	7.5	13.9	9.7	15.4	9.6	12.6	113%
<b>Cairo Metal</b>	6.5	14.0	6.5	12.0	7.6	12.1	7.7	11.9	6.7	10.0	6.5	8.3	0%
<b>Alex. Metal</b>	4.2	16.2	5.7	18.3	7.2	18.9	6.1	14.1	6.8	11.8	9.6	15.0	129%
<b>Koldair</b>	13.9	39.5	11.4	33.9	10.2	26.9	10.9	25.1	15.6	33.0	20.0	33.2	44%

67

companies during the 6-year period investigated. Therefore, income from operation is exclusively from sales of products and associated services.

Sales revenue figures for the nine public sector companies during the six-year period are given in Table 6.14. It is interesting to observe the drop in sales revenue in the three electronic companies Telimisir, Philips and Nasr TV during 1985/86 and 1986/87. The greater proportion of the period growth in the revenues of Ideal, El Tramco, Alex Metals and Koldair occurred during the last two years of the 6-year period. This phenomenon, which is apparent in all nine companies to some degree, is partly due to product price increases resulting from a more lax price control policy (see table 5.2). This point may be assessed further when output in constant prices is discussed later under productivity analysis.

#### Expenses

As is evident from Table 6.4, which illustrates current operations accounts as a percentage of income from operations for 1987/88, the main expense items are wages and material inputs, constituting at least 70% of sales revenue. The wages and material input figures for the nine public sector firms during the six-year period are given in Tables 6.15 and 6.16 respectively. The percentage of growth of these two cost items during the period in relation to the equivalent growth in sales is as follows:

Company	Wages	Material Input	Sales Revenue
Ideal	90%	220%	143%
Telimisir	17%	7%	13%
Philips	63%	23%	31%
Nasr TV	47%	41%	67%
El Tramco	117%	102%	101%
Sabi	85%	93%	96%
Cairo Metals	79%	52%	69%
Alex Metals	133%	328%	342%
Koldair	84%	108%	130%

The ratio of material input to sales revenue is sensitive to inflationary pressures in importables. This is most clearly observed in Ideal, a company dependent on imported parts and kits, in 1987/88.

Engineering Industries Subsector Study

**Table 6.14. SALES REVENUES OF NINE PUBLIC SECTOR COMPANIES**  
 " Million L.E."

<b>Company</b>	<b>1982/83</b>	<b>1983 /84</b>	<b>1984 /85</b>	<b>1985 /86</b>	<b>1986 /87</b>	<b>1987 /88</b>	<b>Period Growth %</b>
<b>Ideal</b>	112.70	124.30	134.00	147.60	182.50	273.20	143%
<b>Telimisr</b>	91.60	106.10	129.40	96.10	78.00	103.50	13%
<b>Philips</b>	62.00	67.80	81.30	71.80	60.00	81.30	31%
<b>Nasr TV</b>	65.90	85.10	113.00	73.80	58.00	110.30	67%
<b>El-Tranco</b>	33.70	41.90	40.30	44.40	60.60	67.90	101%
<b>Sabi</b>	14.60	18.30	20.80	22.20	22.30	28.60	96%
<b>Cairo Metal</b>	16.90	19.10	18.70	22.70	23.80	28.50	69%
<b>Alex. Metal</b>	8.60	13.80	17.10	11.50	24.10	38.00	342%
<b>Koldair</b>	18.90	22.60	25.60	29.10	31.70	43.40	130%

195

Engineering Industries Subsector Study

**Table 6.15. TOTAL WAGES AS PERCENT OF SALES  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Sales %											
<b>Ideal</b>	20.9	18.5	24.3	19.6	26.6	19.9	28.8	19.5	35.0	19.2	39.6	14.5	90%
<b>Telimisr</b>	8.1	8.9	9.8	9.2	11.4	8.8	7.7	8.0	6.9	8.9	9.5	9.2	17%
<b>Philips</b>	5.5	8.9	6.0	8.8	7.3	9.0	6.8	9.5	7.3	12.1	9.0	11.1	63%
<b>Nasr TV</b>	7.4	11.2	9.0	10.6	11.2	9.9	8.2	11.2	7.5	12.9	10.9	9.9	47%
<b>El-Tranco</b>	5.0	14.9	5.9	14.1	6.6	16.5	7.4	16.8	9.9	16.4	10.9	16.1	117%
<b>Sabi</b>	3.7	25.2	4.7	25.8	5.8	28.1	6.1	27.5	5.8	25.9	6.8	23.8	85%
<b>Cairo Metal</b>	5.5	32.3	6.2	32.3	6.8	36.5	7.0	30.6	8.4	35.3	9.8	34.2	79%
<b>Alex. Metal</b>	2.5	28.6	3.7	26.5	4.4	25.6	4.2	36.5	4.5	18.5	5.7	15.1	133%
<b>Koldair</b>	5.7	30.4	7.3	32.4	8.4	32.9	8.5	29.1	8.7	27.4	10.5	24.3	84%

Engineering Industries Subsector Study

**Table 6.16. MATERIAL INPUTS AS PERCENT OF SALES  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM.	% of Sales %											
<b>Ideal</b>	57.8	51.3	58.2	46.8	64.8	48.4	76.8	52.0	107.3	58.8	185.1	67.8	220%
<b>Telimisr</b>	63.0	68.7	74.4	70.2	95.5	73.8	77.1	80.3	60.7	77.8	67.3	65.0	7%
<b>Philips</b>	41.8	67.4	41.6	61.3	47.8	58.8	43.9	61.2	37.6	62.7	51.3	63.1	23%
<b>Nasr TV</b>	44.6	67.7	55.3	65.0	77.9	68.9	54.2	73.5	37.9	65.4	63.0	57.2	41%
<b>El-Tranco</b>	18.4	54.7	20.4	48.7	22.8	56.4	25.1	56.6	33.8	55.7	37.3	54.9	102%
<b>Sabi</b>	7.4	50.5	7.7	41.8	9.7	46.8	10.1	45.5	9.9	44.4	14.2	49.7	93%
<b>Cairo Metal</b>	9.3	55.1	9.3	48.7	9.3	49.8	10.1	44.6	10.0	42.3	14.1	49.5	52%
<b>Alex. Metal</b>	5.1	58.7	8.2	59.3	10.0	58.5	6.2	54.3	13.2	54.9	21.6	56.9	328%
<b>Koldair</b>	9.5	50.6	11.4	50.5	11.9	46.4	12.7	43.5	13.9	43.8	19.9	45.8	108%

### After-Tax Profit

The after-tax profit, or deficit, generated by the nine public sector companies during the six-year period is reported in Table 6.17. The profit margin percentage (profit/sales) is also given. The profitability situation is discouraging to say the least. Nine companies with total assets of up to L.E. 1,079.4 million and L.E. 1,291.9 million in 1986/87 and 1987/88 respectively, generated losses of L.E. 14.7 million.

## 6.2. Efficiency Analysis

Some productivity indicators and financial ratios have been computed for the nine public sector companies during the period 1982/83 to 1987/88. The detailed results, together with the annual rates of change of the parameters are given in Appendix H. Analysis of these figures reflects the relative efficiency of the entities under consideration in utilizing their resources and offers a measure of their performance.

### 6.2.1 Productivity

The different productivity-related parameters and indices given in the worksheets are shown in Table 6.18 for the nine companies for the year ending June 30, 1988. The fundamental productivity indicators used are:

- Productivity of L.E. wage = Production value/wages.
- Output/labor ratio = Production/number of employees.
- Material productivity = Production/material inputs.
- Capital productivity = Production/(fixed assets plus inventory).

The ratios chosen to shed light on the efficiency of the firms in utilizing their main factors of production are: labor, material inputs and capital employed, respectively. Ideally, constant prices are used to offset cost or price changes and hence make the figures more indicative of quantitative changes. The deflators employed together with the constant 1982/83 figures calculated for the various parameters are given in Appendix H.

The variation of the above four productivity indicators at constant prices during the six-year period is plotted in graphs 6.1 to 6.12 for the nine public sector companies. The curves are analyzed by referring to the figures

Engineering Industries Subsector Study

**Table 6.17. AFTER-TAX PROFIT AS PERCENT OF SALES  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Total Profit for Period LE. MM	Average Annual Profit LE. MM	
	L.E. MM.	% of Sales %													
<b>Ideal</b>	11.2	9.9	14.2	11.4	16.7	12.5	17.3	11.7	2.4	1.3	(11.5)	(4.2)	50.2	8.4	
<b>Telimisir</b>	7.7	8.4	8.6	8.1	7.1	5.5	1.5	1.6	0.0	0.0	0.5	0.5	25.4	4.2	
<b>Philips</b>	1.4	2.3	1.6	2.3	1.9	2.3	1.9	2.7	0.0	0.0	(3.4)	(4.2)	3.4	0.6	
<b>Nasr TV</b>	3.6	5.5	5.8	6.9	3.2	2.8	0.0	0.0	(9.4)	(16.2)	0.6	0.6	3.9	0.6	
<b>El-Tramco</b>	0.4	1.2	0.6	1.4	(3.0)	(7.4)	1.1	2.4	0.8	1.4	2.9	4.2	2.8	0.5	
<b>Sabi</b>	0.3	2.2	0.2	1.2	(0.0)	(0.0)	0.0	0.0	0.0	0.0	(0.8)	(2.9)	(0.3)	0.0	
<b>Cairo Metals</b>	(2.2)	(13.2)	(2.8)	(14.9)	(5.8)	(31.1)	(0.6)	(2.7)	0.2	0.7	(1.5)	(5.1)	(12.8)	(2.1)	
<b>Alex. Metals</b>	(0.2)	(2.5)	(0.6)	(4.0)	(2.9)	(16.6)	(3.3)	(29.0)	(2.2)	(9.0)	(1.8)	(4.9)	(11.0)	(1.8)	
<b>Koldair</b>	(0.3)	(1.4)	(1.0)	(4.4)	0.4	1.4	1.0	3.3	0.9	2.7	0.3	0.6	1.2	0.2	

43

Engineering Industries Subsector Study

**Table 6.18. PRODUCTIVITY ANALYSIS OF NINE PUBLIC SECTOR COMPANIES**  
FY 1987/88

Items	Ideal	Telimisr	Philips	Nasr TV	EI Tramco	Sabi	Cairo Metals	Alex. Metals	Koldair
Production, MM. L.E.	279.9	103.7	80.2	94.4	66.3	27.3	25.1	38.0	43.9
Sales, MM. L.E.	267.5	102.7	76.9	89.4	61.9	26.1	21.6	33.1	43.9
Local	216.1	102.2	76.7	89.4	61.5	25.9	21.6	33.1	39.1
Exports	51.4	0.5	0.2	0.0	0.4	0.2	0.0	0.0	4.7
Value added, MM. L.E.	44.2	20.2	14.4	38.2	23.7	12.3	11.7	10.2	10.7
Personnel, No.	9573	2970	3633	2652	3400	2246	3085	2117	2345
Av. income/worker, L.E.	4133.0	3203.0	2477.0	4101.0	3220.0	3035.0	3163.0	2710.0	4495.00
Productivity of L.E. wage	7.1	10.9	8.9	8.7	6.1	4.0	2.6	6.6	4.20
Labor productivity, L.E.	29239.0	34905.0	22068.0	35605.0	19498.0	12136.0	8146.0	17936.0	18740.0
Material productivity	1.51	1.54	1.56	1.50	1.78	1.92	1.78	1.76	2.21
Capital productivity	1.06	1.37	0.76	0.95	0.63	0.42	0.44	1.18	0.94
Capital/Labor ratio, L.E.	27545.0	25437.0	28863.0	37487.0	30800.0	28610.0	18630.0	15156.0	19862.0
Inventory/Output ratio	0.54	0.47	0.78	0.66	0.73	1.12	0.93	0.41	0.77

for production and the factor in question. The spurt in labor productivity witnessed in Ideal for 1987/88, for example, is either due to an increase in production or a decrease in wages. Since the wage bill in real terms decreased only slightly (5%) between 1986/87 and 1987/88, the increase in the productivity index must be due to an increase in product output.

A general observation is that the level of capital productivity is very low in most cases. As discussed earlier, this is mainly due to the high levels of inventory held by the companies. The implication is that the utilization of capital (fixed assets plus inventory) in these companies is inefficient. This is reported as the major reason for the poor performance of most companies studied in Egypt.

Labor productivity in terms of productivity per employee is probably the simplest factor productivity measurement. The figures in table 6.19 are in both constant and current terms for the nine public sector companies. The constant term figures are plotted in graphs 6.10 to 6.12 for the three sets of three similar electronics companies. Furthermore, the average income per worker is given in Table 6.20 for the public sector companies. The period growth rates in labor income are compared with the equivalent productivity below:

Percentage of Growth during 1982/83 - 1987/88

Company	Labor Productivity		Av. Income/Worker	
	Current	Constant	Current	Constant
Ideal	112%	81%	61%	(26)%
Telimisr	(11)%	(36)%	(2)%	(56)%
Philips	9%	(11)%	43%	(36)%
Nasr TV	49%	44%	49%	(34)%
El Tramco	90%	39%	88%	(16)%
Sabl	107%	117%	94%	(14)%
Cairo Metals	49%	0%	67%	(27)%
Alex Metals	324%	193%	103%	(12)%
Koldair	201%	136%	111%	(6)%

It is clear that the real, and in most cases current, average income per worker has grown less than equivalent labor productivity. This was the a

75

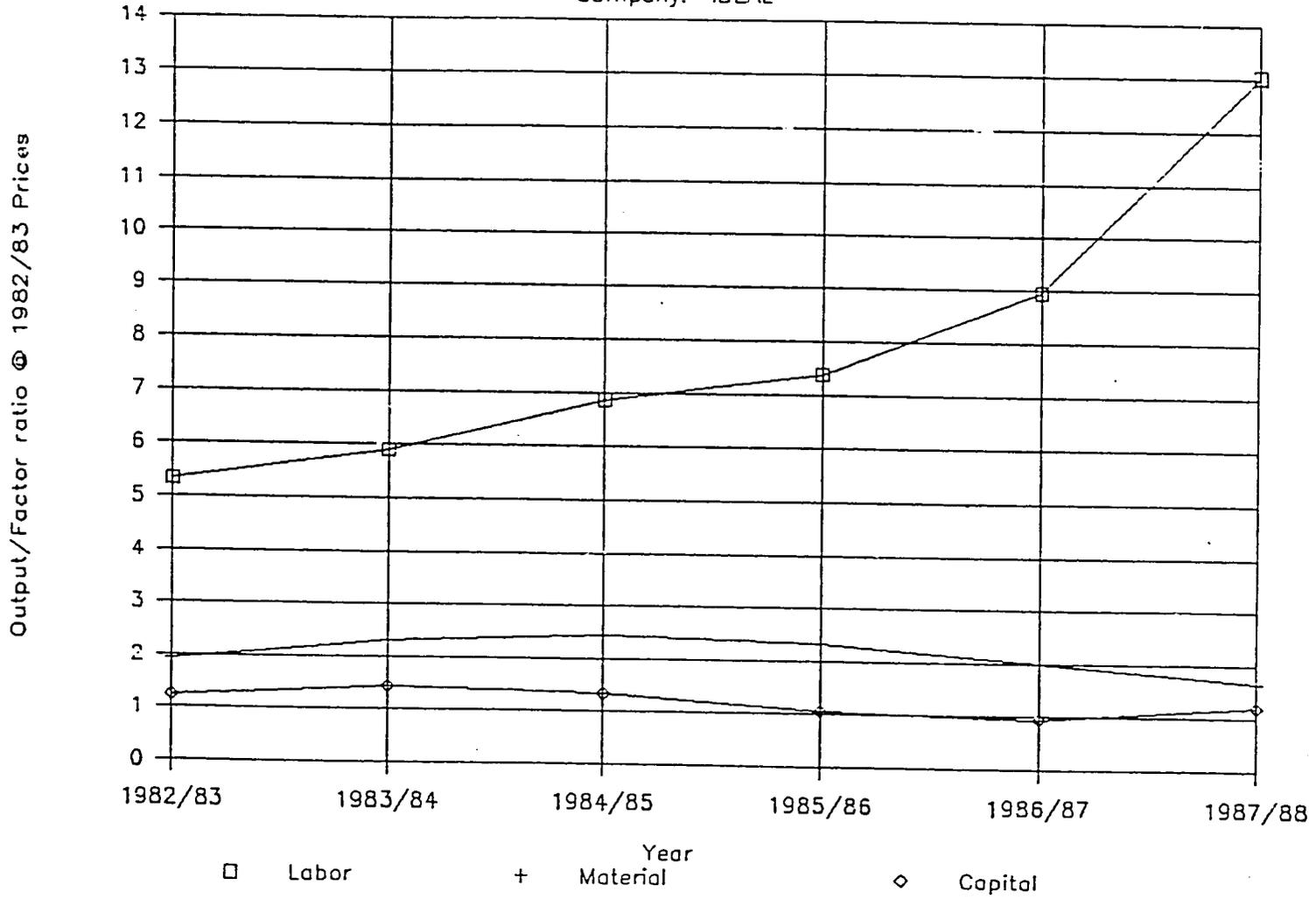
Engineering Industries Subsector Study

**Table 6.19. LABOR PRODUCTIVITY OF NINE PUBLIC SECTOR COMPANIES**  
LE/Worker in Current and Constant 1982/83 Prices

Company	1982/83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period	Growth
	Current	Constant	Current	Constant	Current	Constant	Current	Constant	Current	Constant	Current	Constant	%	%
<b>Ideal</b>	13,165	14,460	14,460	15,695	15,496	18,700	17,086	21,375	19,393	29,238	23,891	112%	81%	
<b>Telimisr</b>	39,092	44,220	44,751	47,722	48,358	35,744	33,942	31,885	27,582	34,905	25,010	(11)%	-36%	
<b>Philips</b>	20,207	19,416	19,319	20,983	20,833	15,969	15,283	23,650	15,575	22,068	18,041	9%	-11%	
<b>Nasr TV</b>	23,861	30,230	34,345	39,115	44,043	23,777	25,448	20,610	20,164	35,605	34,478	49%	44%	
<b>El-Tranco</b>	10,276	11,955	9,812	10,935	9,095	12,803	9,984	16,844	13,136	19,498	14,259	90%	39%	
<b>Sabi</b>	5,875	6,993	6,993	7,451	7,462	9,105	9,290	9,970	10,330	12,137	12,734	107%	117%	
<b>Cairo Metals</b>	5,473	5,582	5,582	5,936	5,605	7,146	5,545	7,559	5,938	8,146	5,493	49%	0%	
<b>Alex. Metals</b>	4,230	6,201	6,013	7,537	6,902	4,624	3,983	11,480	9,747	17,936	12,397	324%	193%	
<b>Koldair</b>	6,217	8,937	8,994	9,855	9,695	11,528	10,687	11,860	10,486	18,740	14,689	201%	136%	

Figure: 6.1  
FACTOR PRODUCTIVITY

Company: IDEAL



77

Figure: 6.2

# FACTOR PRODUCTIVITY

Company: TELIMISR

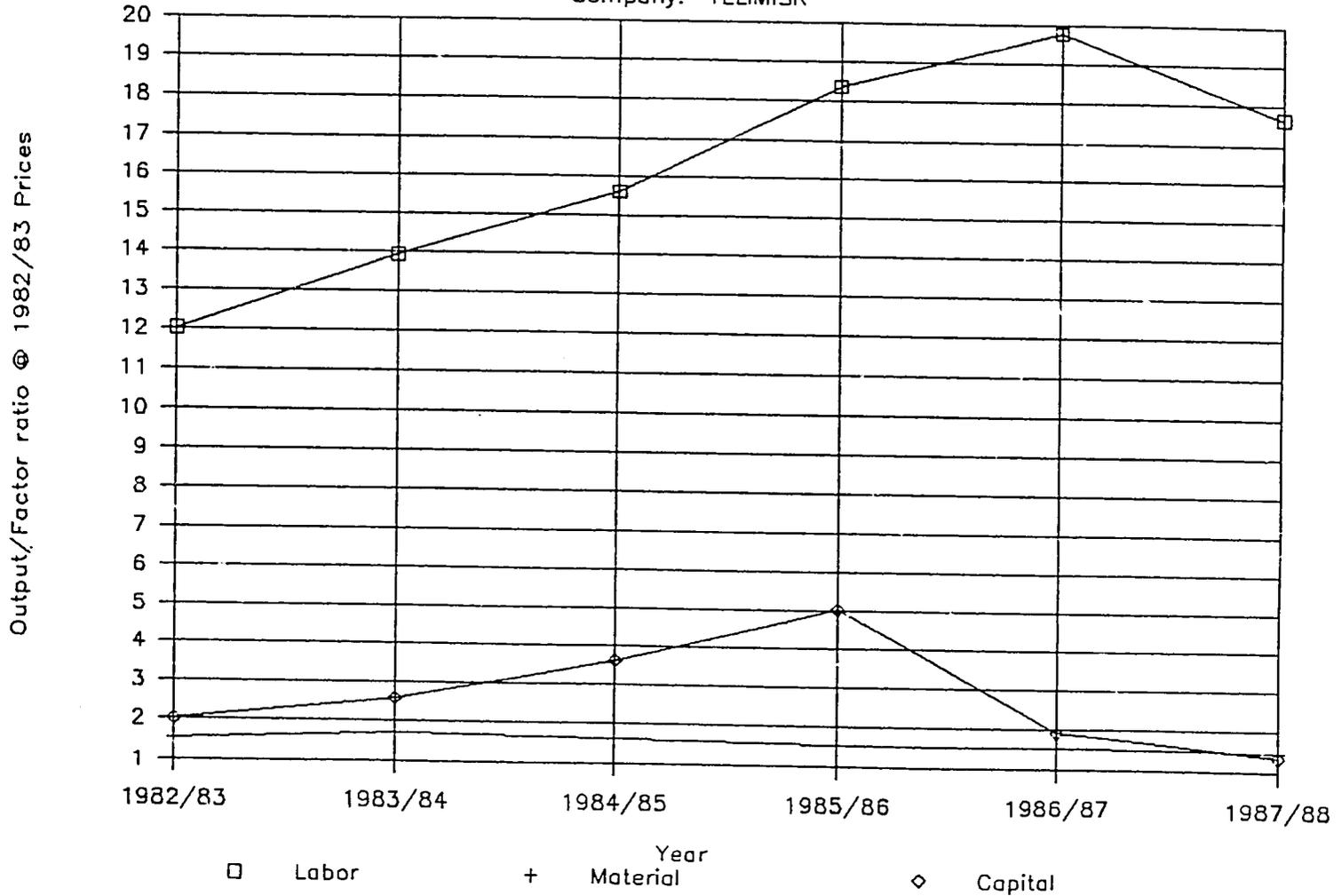
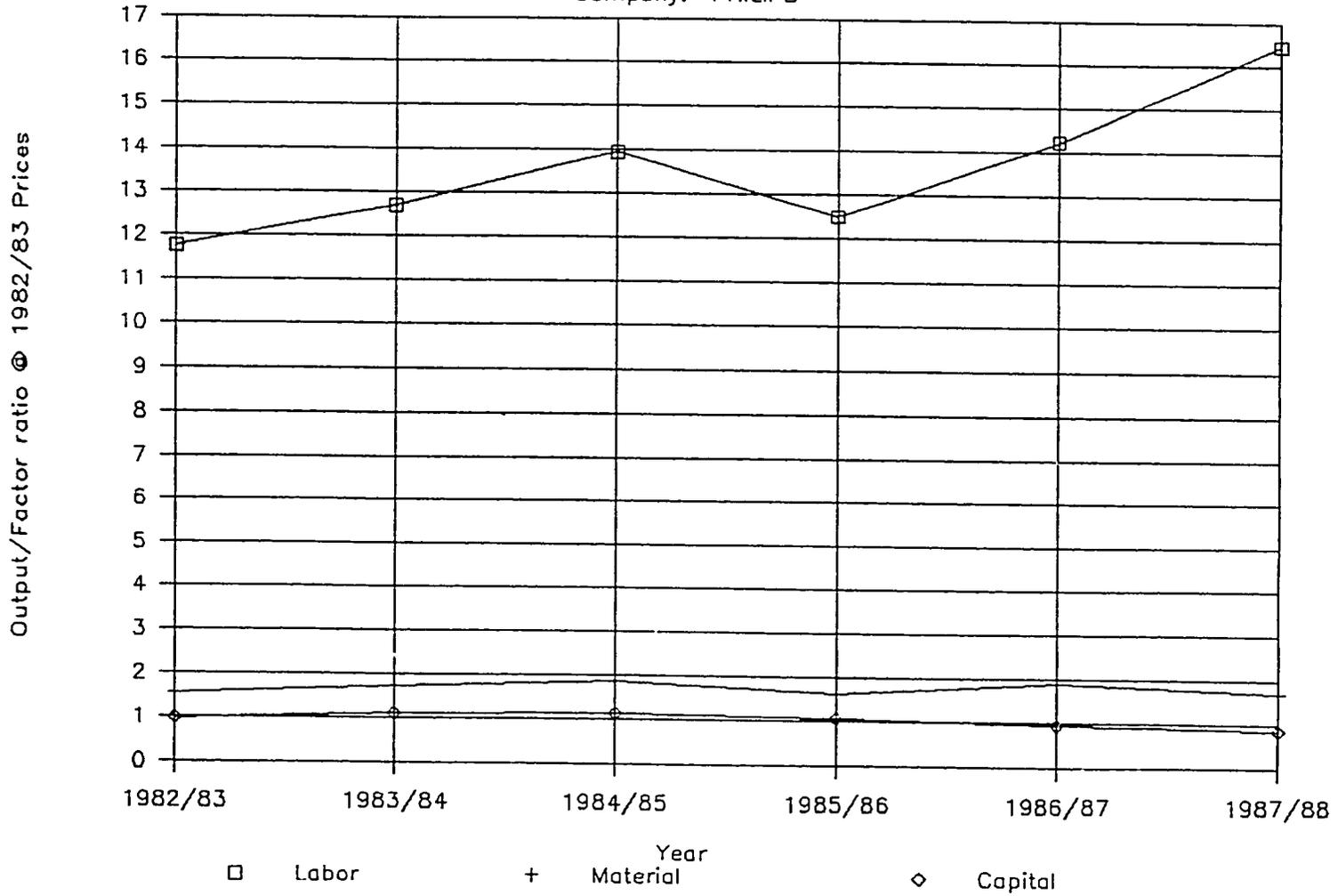


Figure: 6.3

# FACTOR PRODUCTIVITY

Company: PHILIPS



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Figure: 6.4  
FACTOR PRODUCTIVITY

Company: NASR TV

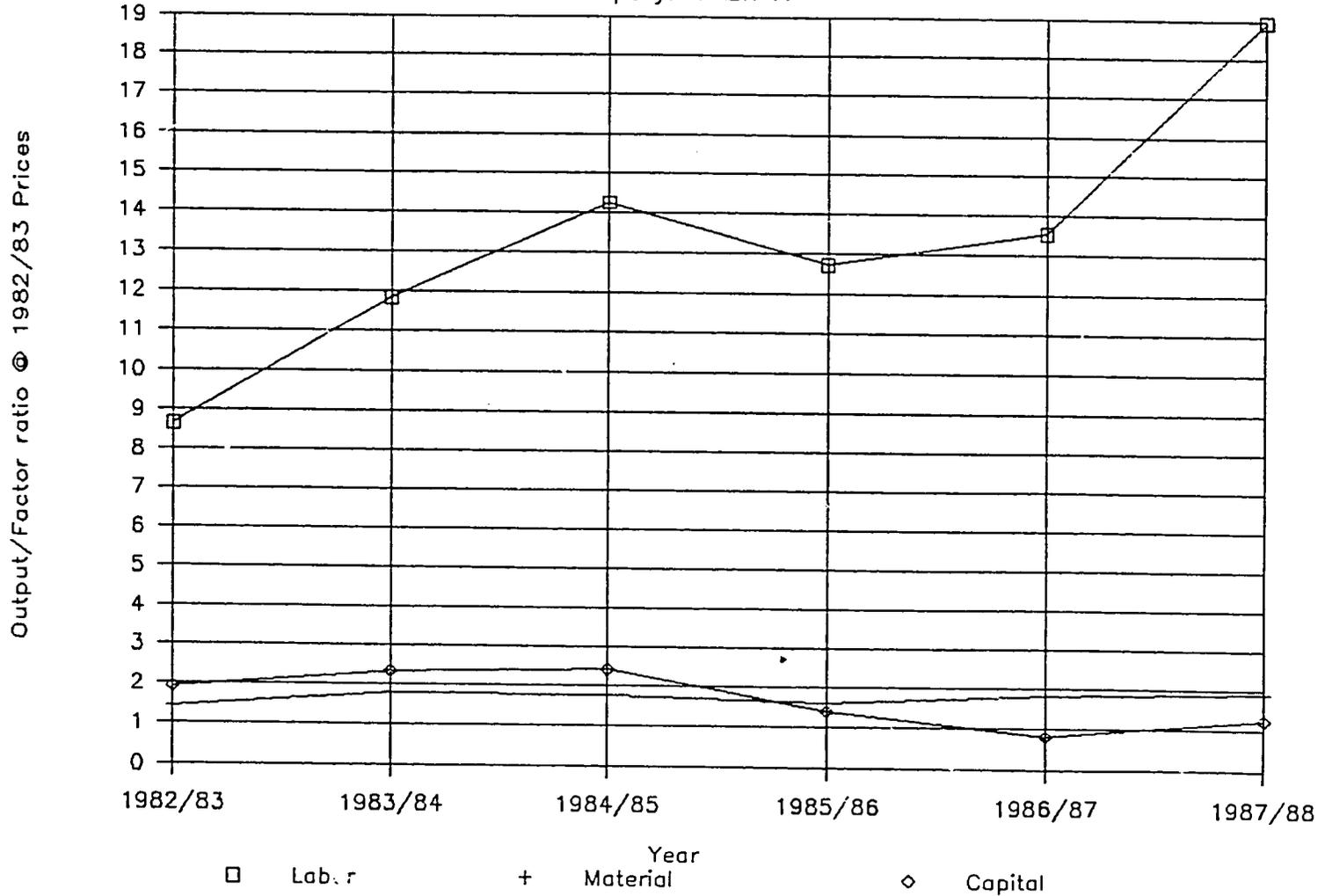
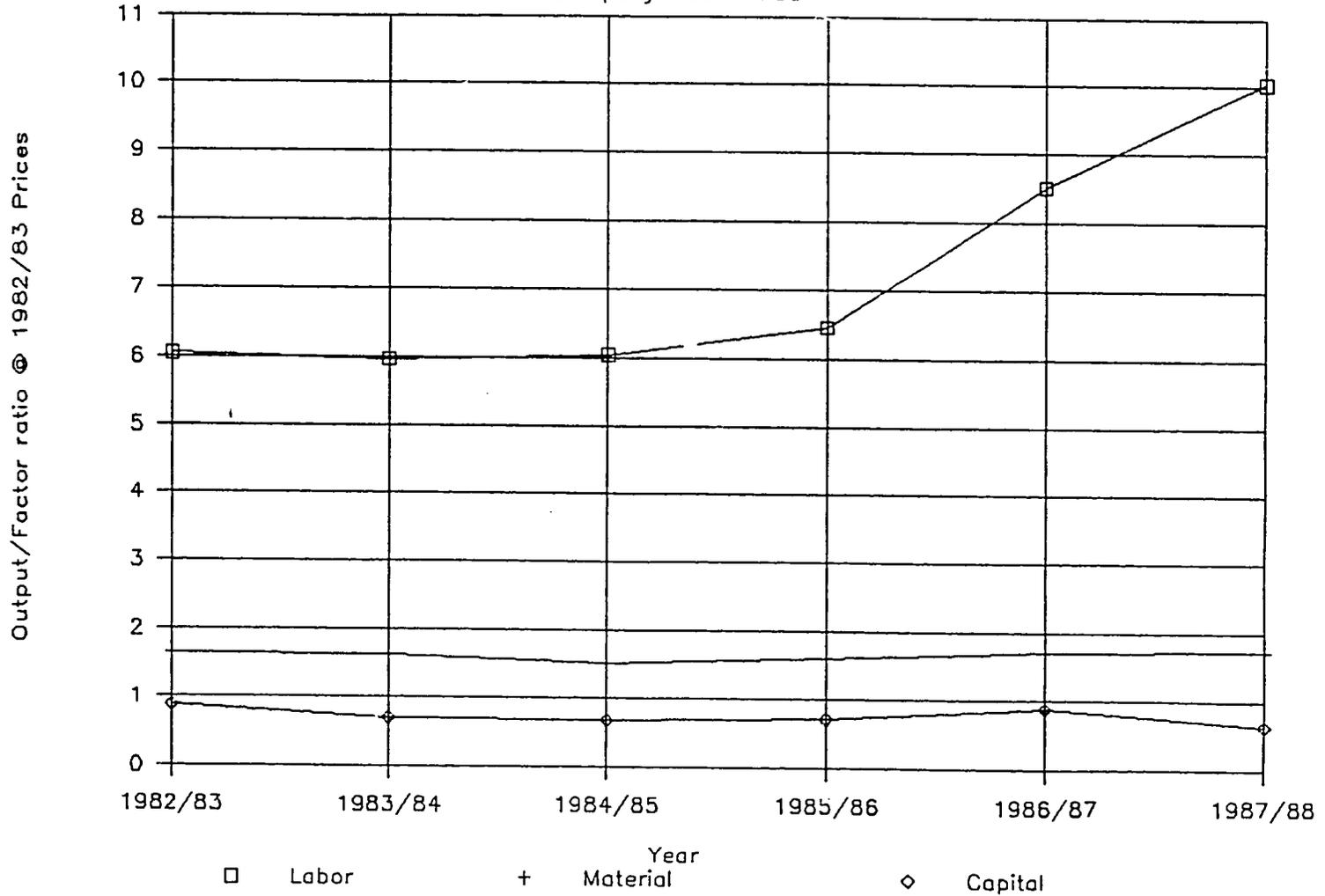


Figure: 6.5  
FACTOR PRODUCTIVITY

Company: ELTRAMCO

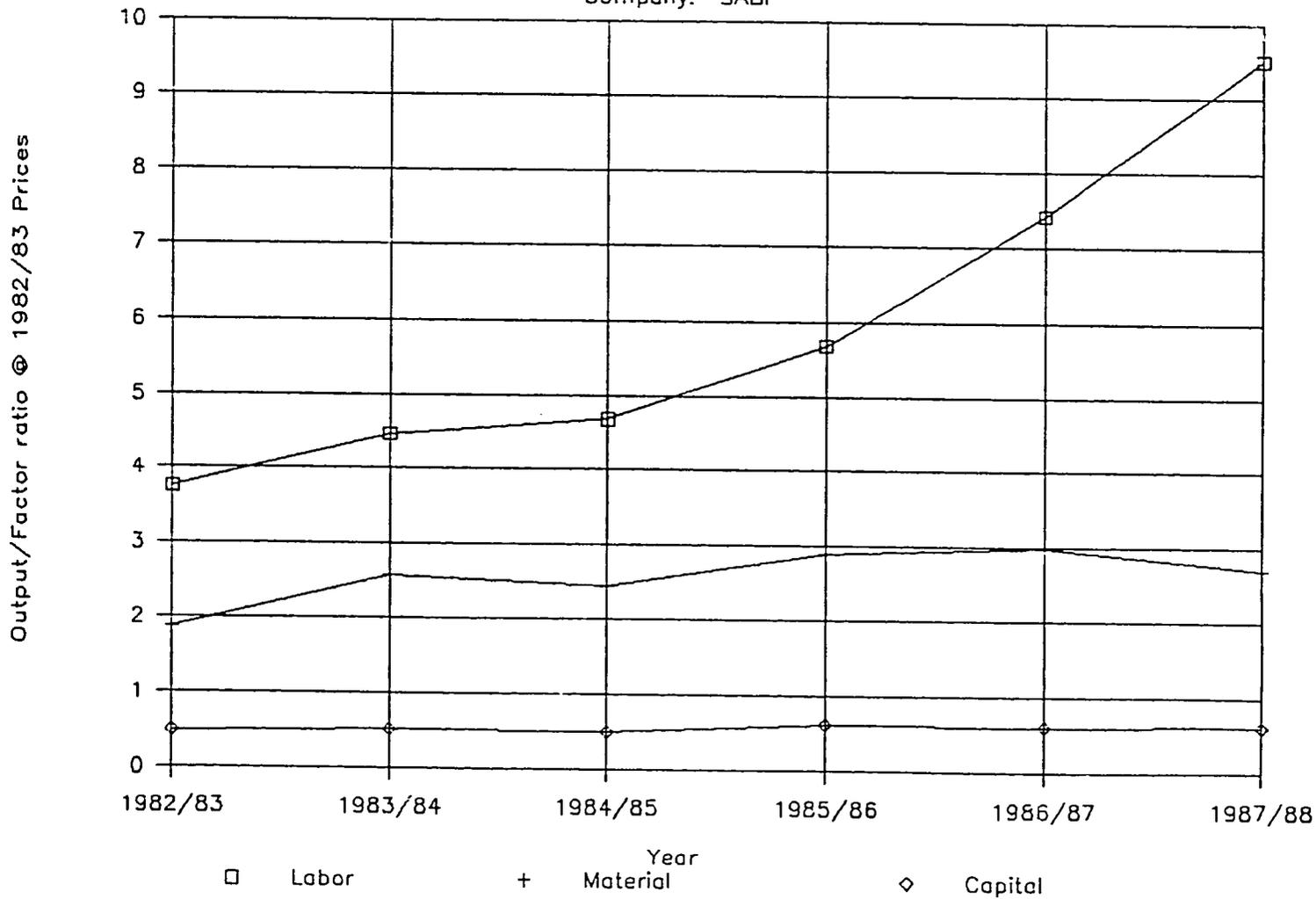


61

Figure: 6.6

# FACTOR PRODUCTIVITY

Company: SABI



125

Figure: 6.7

# FACTOR PRODUCTIVITY

Company: CAIRO METALS

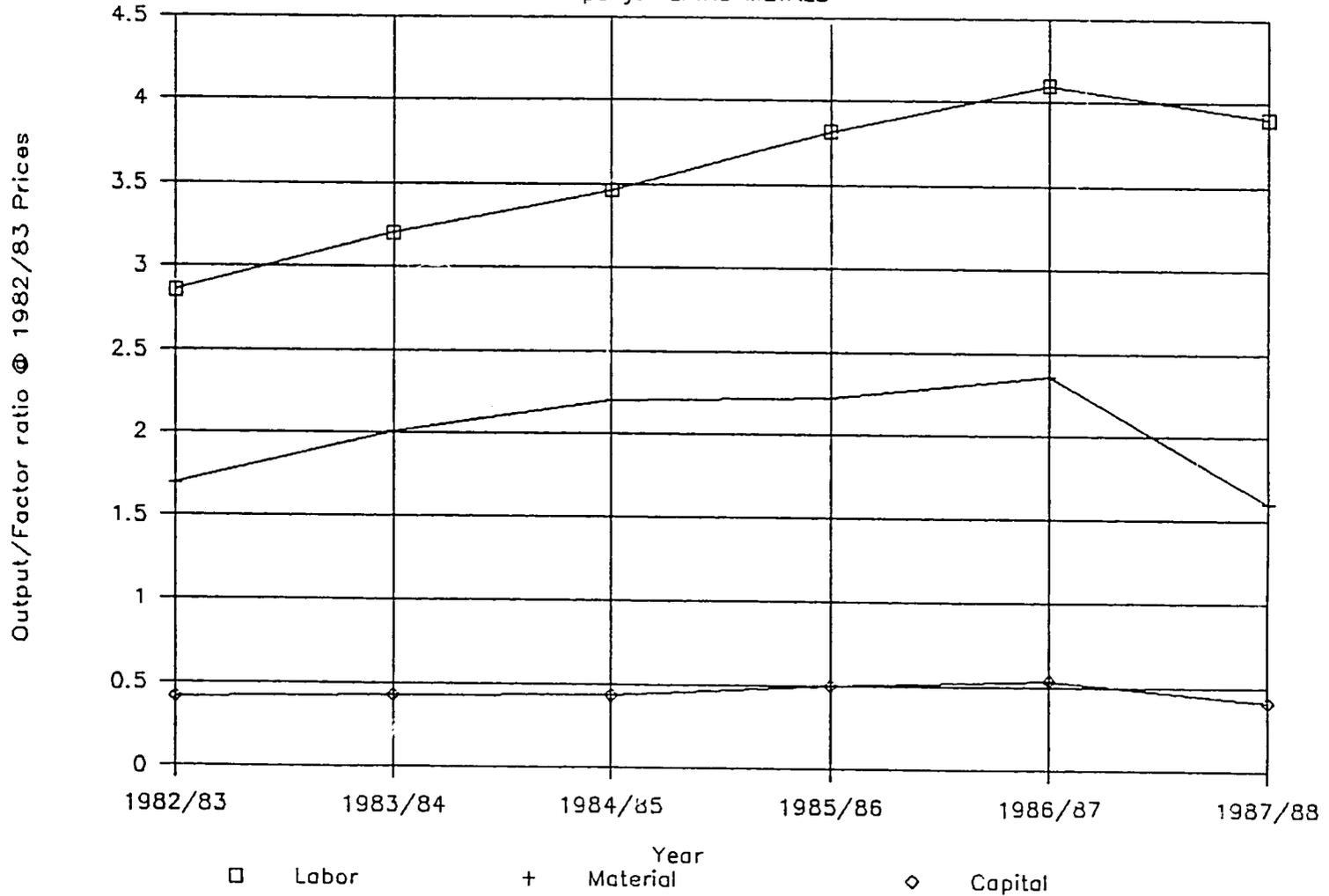


Figure: 6.8

# FACTOR PRODUCTIVITY

Company: ALEX METALS

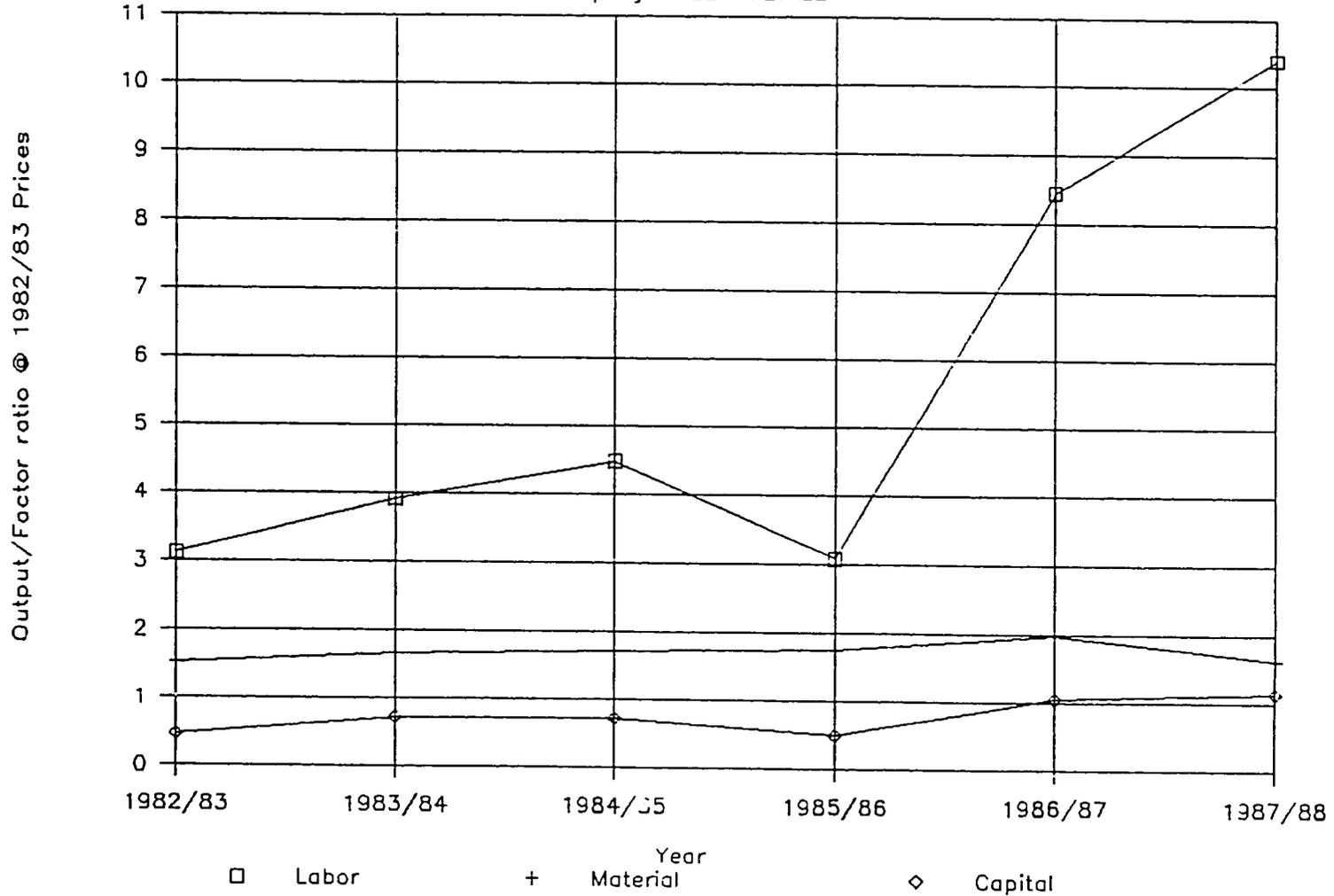


Figure: 6.9  
FACTOR PRODUCTIVITY

Company: KOLDAIR

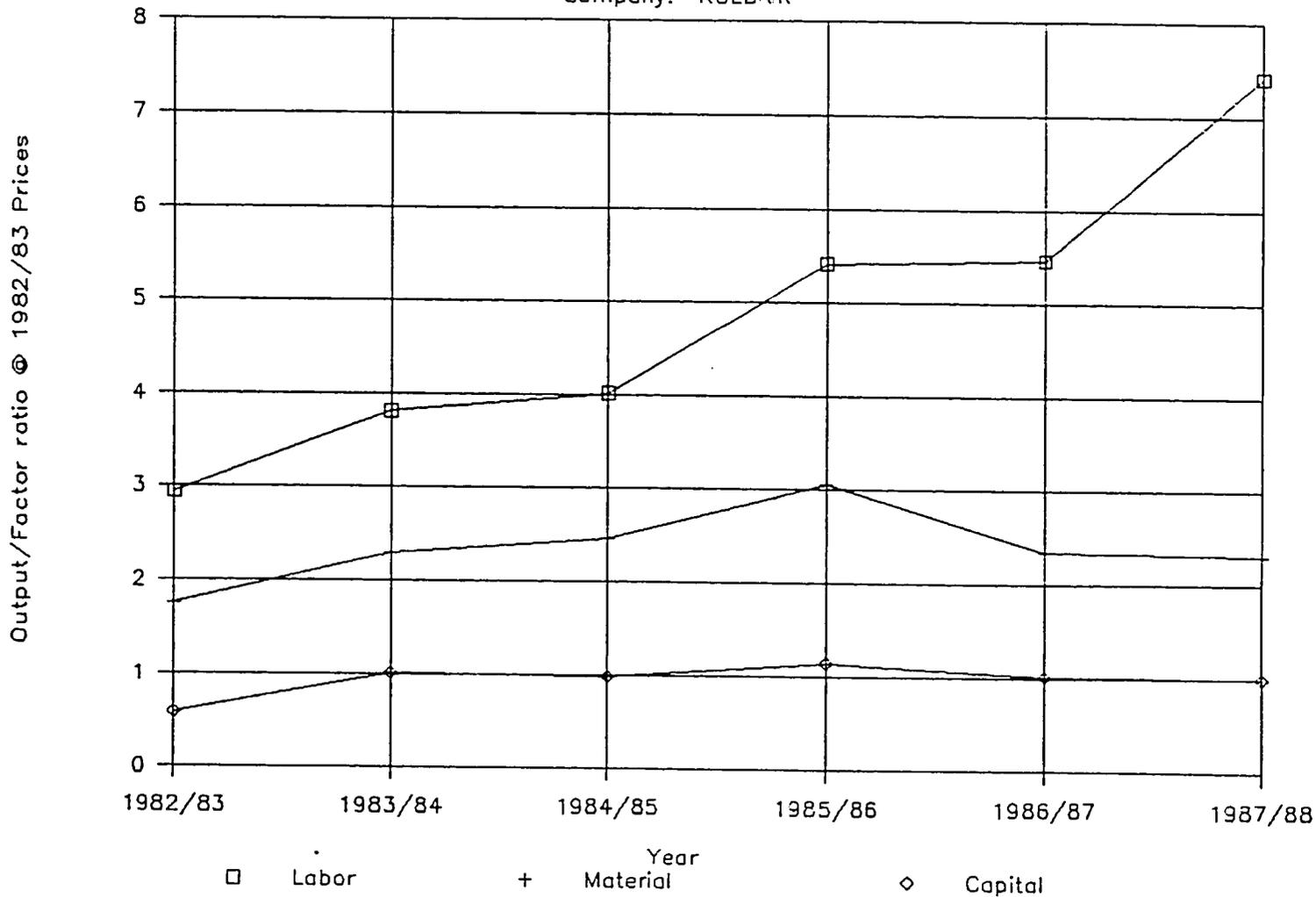
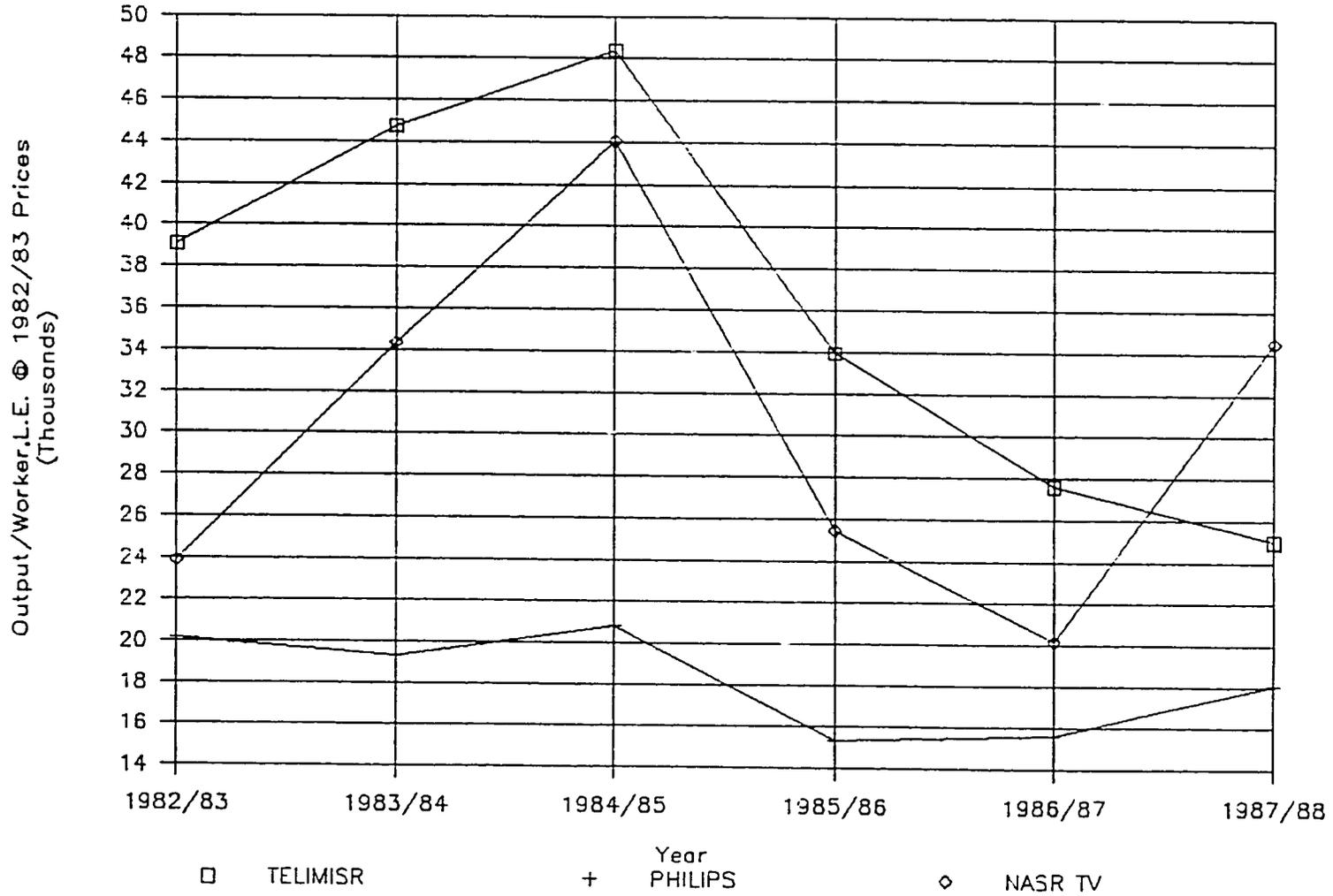


Figure: 6.10

# OUTPUT/LABOR RATIO



23

Figure: 6.11

# OUTPUT/LABOR RATIO

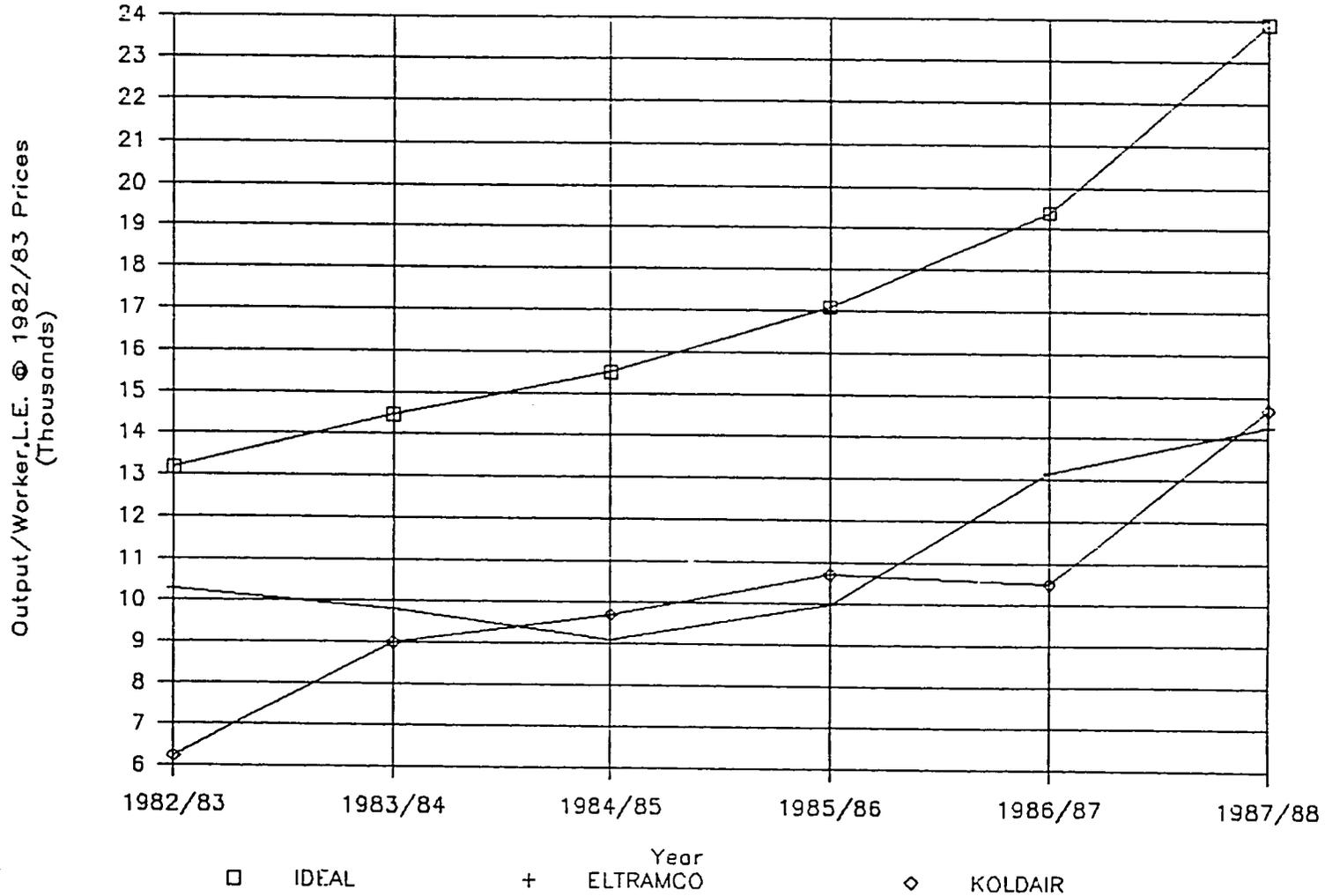
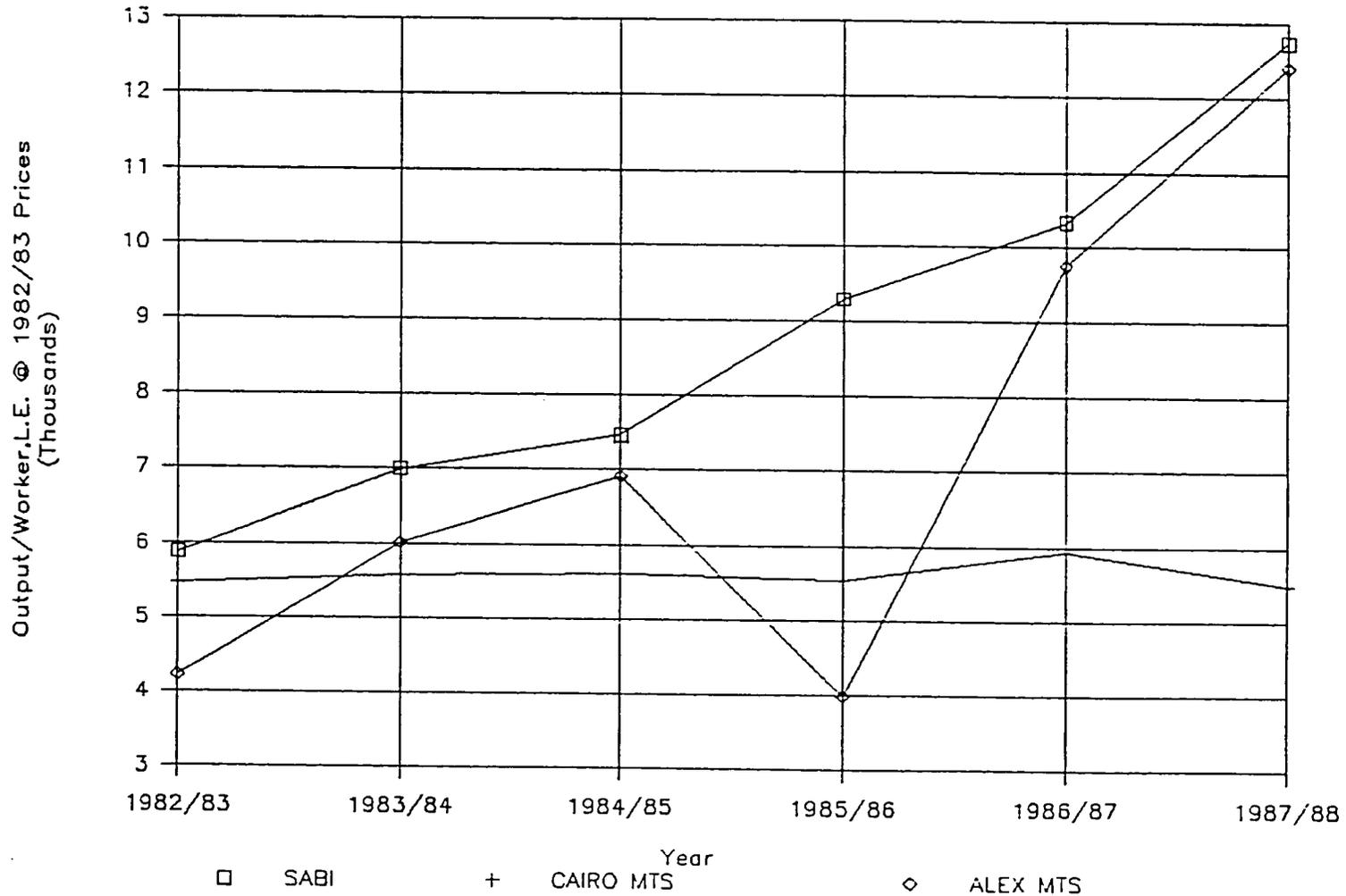


Figure: 6.12

# OUTPUT/LABOR RATIO



Engineering Industries Subsector Study

**Table 6.20. AVERAGE INCOME PER WORKER IN NINE PUBLIC SECTOR COMPANIES**  
Current and Constant 1982/83 Prices

Company	1982/83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period %	Growth %
	Current	Constant	Current	Constant	Current	Constant	Current	Constant	Current	Constant	Current	Constant		
<b>Ideal</b>	2,460	2,850	2,452	3,067	2,257	3,560	2,315	4,090	2,166	4,134	1,832	61%	-26%	
<b>Telimisr</b>	3,265	3,720	3,210	4,217	3,095	2,835	1,845	2,638	1,395	3,203	1,416	(2)%	-56%	
<b>Philips</b>	1,728	1,755	1,523	2,029	1,494	1,882	1,224	2,056	1,094	2,477	1,097	43%	-36%	
<b>Nasr TV</b>	2,748	3,367	2,898	4,187	3,090	3,097	2,000	2,794	1,489	4,101	1,820	49%	-34%	
<b>El-Tranco</b>	1,710	1,908	1,643	2,058	1,505	2,392	1,545	2,925	1,543	3,220	1,419	88%	-16%	
<b>Sabi</b>	1,562	1,828	1,566	2,180	1,592	2,522	1,636	2,620	1,392	3,035	1,341	94%	-14%	
<b>Cairo Metals</b>	1,899	2,010	1,744	2,206	1,618	2,220	1,452	2,729	1,449	3,163	1,407	67%	-27%	
<b>Alex. Metals</b>	1,336	1,766	1,536	2,089	1,540	1,988	1,293	2,158	1,153	2,710	1,192	103%	-12%	
<b>Koldair</b>	2,129	2,751	2,361	3,302	2,417	3,022	1,972	3,614	1,919	4,495	1,983	111%	-6%	

priori expectation in section 2 when reference to the stability of labour employed in the engineering sector over the period 1982/83-1987/88 was made.

The capital/labor ratio figures for the nine public sector companies during the six-year period are given in Table 6.21. They are meant to compare the relative labor intensity between the companies.

The inventory/output ratios given in the worksheets (item No. 44) are practically equivalent to the reciprocal of the inventory turnover ratio discussed in the following section. This is because the production and sales figures do not differ appreciably in all the companies analyzed.

The export performance of the companies is given in table 6.22. It is to be noted that the greater portion of these figures account for local sales in foreign currency. The figures for the first nine months of 1988/89 reveal that out of Ideal's export sales of L.E. 6.57 million 94% were local exports i.e. sales in foreign currency in the local market. For Koldair 98% of the achieved exports of L.E. 1.49% during the same period were for local exports.

The percentage of change in the numbers of employees during the six-year period compared to sales and investment growth are given below:

Company	No. of Workers	Fixed Assets	Sales
Ideal	18.0%	149%	143%
Telimisr	19.3%	202%	13%
Philips	13.6%	107%	31%
Nasr TV	(1.3)%	265%	67%
El Tramco	15.4%	309%	101%
Sabi	(4.8)%	124%	96%
Cairo Metals	7.4%	24%	69%
Alex Metals	15.1%	23%	342%
Koldair	(13.0)%	36%	130%

Engineering Industries Subsector Study

**Table 6.21. CAPITAL/ LABOR RATIOS OF NINE PUBLIC SECTOR COMPANIES**  
Current and Constant 1982/83 Prices

Company	1982/83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period %	Growth %
	Current	Constant	Current	Constant	Current	Constant	Current	Constant	Current	Constant	Current	Constant		
<b>Ideal</b>	10,793	11,017	10,145	13,256	11,704	21,817	16,479	28,128	20,709	27,545	19,980	144%	85%	
<b>Telimisr</b>	19,454	18,775	17,273	15,257	13,306	9,064	6,768	19,452	14,379	25,437	18,572	31%	-5%	
<b>Philips</b>	20,818	19,248	17,704	21,348	18,628	18,986	14,384	22,769	16,794	28,862	20,963	39%	1%	
<b>Nasr TV</b>	12,346	15,938	14,621	20,973	18,129	23,860	18,098	34,283	25,338	37,487	27,299	204%	122%	
<b>El-Tranco</b>	11,935	15,524	14,232	15,180	13,321	18,773	14,209	20,734	15,107	30,798	22,121	158%	86%	
<b>Sabi</b>	11,914	14,749	13,566	16,906	14,946	19,844	14,932	23,606	17,045	28,609	20,569	140%	72%	
<b>Cairo Metals</b>	13,202	14,143	13,041	14,483	12,950	14,796	11,085	15,431	11,006	18,630	13,295	41%	0%	
<b>Alex. Metals</b>	9,512	9,080	8,355	10,885	9,690	11,195	8,405	13,000	9,411	15,156	10,922	59%	15%	
<b>Koldair</b>	10,706	9,650	8,867	11,226	9,809	12,155	9,277	13,905	10,335	19,868	14,587	86%	37%	

10/

Engineering Industries Subsector study

**Table 6.22. EXPORT PERFORMANCE  
NINE PUBLIC SECTOR COMPANIES**

Company	1982 /83		1983 /84		1984 /85		1985 /86		1986 /87		1987 /88		Period Growth %
	L.E. MM. Sales	% of Sales											
<b>Ideal</b>	25.1	22.6	23.7	19.4	16.0	10.9	19.9	13.4	25.4	14.4	51.4	19.2	105%
<b>Telimisr</b>	37.1	40.6	22.3	20.8	8.4	6.5	9.0	6.9	22.6	29.1	0.5	0.4	(99)%
<b>Philips</b>	11.7	22.9	3.3	4.3	2.0	2.7	0.8	1.0	5.8	8.8	0.2	0.2	(99)%
<b>Nasr TV</b>	9.9	14.9	27.2	32.1	27.1	22.0	5.6	7.7	8.5	13.6	0.0	0.0	
<b>El-Tranco</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	
<b>Sabi</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	0.2	0.7	
<b>Cairo Metals</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>Alex. Metals</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>Koldair</b>	0.8	4.2	1.7	6.8	1.0	4.1	0.3	1.0	1.4	4.0	4.7	10.8	512%

### 6.2.2. Financial Ratios

The financial ratios computed in the worksheets are given in table 6.23 for the nine public sector companies based on the financial statements for the year ending June 30, 1988.

The liquidity position of the companies as reflected by the 'acid test' or "quick ratio" as it is also known, is shown in table 6.24 for the six-year period covered. It is evident that all the companies, with Talimiser to a lesser degree, are suffering from an acute liquidity problem. Since the ratio is the result of dividing the sum of accounts receivable and cash on hand by the sum of accounts payable and credit banks, any measure to increase the numerator and/or decrease the denominator would improve the result. This could be achieved through better management of inventories by converting finished goods into cash and reducing material input stocks financed by credit or borrowing. To promote this, public procurement policies and procedures should be modified to become more supportive.

The degree of leverage of the companies during the six-year period is given in table 6.25. As discussed earlier under net worth, it appears that a high degree of leverage is the rule. Better management of current assets to decrease inventory levels and strive to collect receivables would release and generate funds to lower accounts payable and minimize the reliance on bank overdrafts.

The effectiveness of the companies in employing their resources as defined under the different asset accounts is measured by the activity ratios given in the worksheets (items Nos. 49 to 52). The inventory turnover and fixed assets turnover ratios are given in tables 6.26 and 6.27, respectively, for the nine public sector companies during the six-year period.

Low inventory of fixed assets turnover ratios suggest that there has been too heavy an investment in the corresponding asset, inventories or fixed assets, respectively. This leads to an increase in debit financing and its associated burdens.

Engineering Industries Subsector Study

**Table 6.23. RATIO ANALYSES OF NINE PUBLIC SECTOR COMPANIES**  
FY 1987/88

Items	Idéal	Telimisr	Philips	Nasr TV	El-Tranco	Sabi	Cairo Metals	Alex Metals	Koldair
Current ratio	0.99	1.04	0.97	1.05	1.10	1.20	1.35	0.91	1.19
Acid test	0.42	0.72	0.28	0.53	0.44	0.31	0.23	0.46	0.35
Debt to total assets	0.70	0.83	0.68	0.76	0.76	0.68	0.33	0.62	0.70
Debt to equity	2.33	4.73	2.15	3.21	3.09	2.09	0.48	1.62	2.28
Inventory turnover	1.81	2.11	1.30	1.77	1.40	0.94	1.37	2.44	1.28
Av. Collection period, days	119.00	155.00	102.00	173.00	158.00	124.00	42.00	129.00	107.00
Fixed assets, turnover	2.43	3.89	1.92	2.96	1.21	0.85	0.78	2.31	3.40
Total assets turnover	0.71	0.56	0.61	0.64	0.49	0.38	0.37	0.60	0.72
Profit margin on sales	-4.2%	0.5%	-4.2%	0.6%	4.2%	-2.9%	-5.1%	-4.9%	0.6%
Return on money employed	-10.5%	1.5%	-8.6%	1.5%	4.5%	-2.1%	-3.4%	-13.9%	1.3%
Return on net month	-9.9%	1.6%	-8.1%	1.6%	8.5%	-3.4%	-2.8%	-7.6%	1.4%
Return on total assets	-3.0%	0.3%	-2.6%	0.4%	2.1%	-1.1%	-1.9%	-2.9%	0.4%

## Engineering Industries Subsector Study

Table 6.24. ACID TEST OF NINE PUBLIC SECTOR COMPANIES

Company	1982/83	1983 /84	1984 /85	1985 /86	1986 /87	1987 /88
<b>Ideal</b>	0.78	0.91	0.85	0.53	0.34	0.42
<b>Telimisir</b>	0.67	0.83	1.05	1.22	0.82	0.72
<b>Philips</b>	0.36	0.58	0.56	0.61	0.40	0.28
<b>Nasr TV</b>	0.82	0.90	0.79	0.71	0.63	0.53
<b>El-Tranco</b>	0.53	0.53	0.62	0.64	0.60	0.44
<b>Sabi</b>	0.26	0.24	0.28	0.31	0.43	0.31
<b>Cairo Metal</b>	0.17	0.13	0.18	0.34	0.43	0.25
<b>Alex. Metal</b>	0.49	0.56	0.45	0.51	0.57	0.46
<b>Koldair</b>	0.24	0.29	0.31	0.33	0.47	0.35

Engineering Industries Subsector study

**Table 6.25. DEBT/TOTAL ASSETS RATIOS OF NINE PUBLIC SECTOR COMPANIES**

<b>Company</b>	<b>1982/83</b>	<b>1983 /84</b>	<b>1984 /85</b>	<b>1985 /86</b>	<b>1986 /87</b>	<b>1987 /88</b>
<b>Ideal</b>	0.61	0.61	0.57	0.59	0.64	0.70
<b>Telimisr</b>	0.67	0.62	0.65	0.66	0.92	0.83
<b>Philips</b>	0.64	0.65	0.63	0.55	0.59	0.62
<b>Masr TV</b>	0.59	0.62	0.69	0.73	0.80	0.76
<b>El-Trameo</b>	0.53	0.64	0.68	0.61	0.66	0.76
<b>Sabi</b>	0.49	0.57	0.62	0.59	0.63	0.68
<b>Cairo Metal</b>	0.47	0.49	0.49	0.26	0.24	0.33
<b>Alex. Metal</b>	0.42	0.50	0.56	0.48	0.59	0.62
<b>Koldair</b>	0.66	0.62	0.64	0.63	0.61	0.70

Engineering Industries Subsector Study

**Table 6.26. INVENTORY TURNOVERS OF NINE PUBLIC SECTOR COMPANIES**

<b>Company</b>	<b>1982/83</b>	<b>1983 /84</b>	<b>1984 /85</b>	<b>1985 /86</b>	<b>1986 /87</b>	<b>1987 /88</b>
<b>Ideal</b>	2.43	2.98	2.67	1.89	1.39	1.81
<b>Telimisr</b>	2.31	2.77	5.02	17.37	2.61	2.11
<b>Philips</b>	1.34	1.66	1.73	2.03	1.32	1.30
<b>Nasr TV</b>	2.87	2.72	2.80	2.04	1.08	1.77
<b>El-Tranco</b>	1.57	1.39	1.56	1.54	1.90	1.40
<b>Sabi</b>	1.12	1.05	1.09	1.20	1.15	0.94
<b>Cairo Metals</b>	2.00	1.83	1.66	1.92	1.94	1.37
<b>Alex. Metals</b>	2.09	2.98	2.20	1.52	2.32	2.44
<b>Koldair</b>	0.98	1.44	1.43	1.29	1.48	1.28

13

Engineering Industries Subsector Study

**Table 6.27. FIXED ASSETS TURNOVERS OF NINE PUBLIC SECTOR COMPANIES**

<b>Company</b>	<b>1982/83</b>	<b>1983 /84</b>	<b>1984 /85</b>	<b>1985 /86</b>	<b>1986 /87</b>	<b>1987 /88</b>
<b>Ideal</b>	2.50	2.38	2.07	1.50	1.67	2.43
<b>Telimisr</b>	10.48	9.62	8.31	5.05	3.69	3.89
<b>Philips</b>	3.04	2.76	2.74	2.17	1.71	1.92
<b>Nasr TV</b>	6.44	7.46	7.24	2.69	1.53	2.96
<b>El-Tramco</b>	2.46	2.36	1.74	1.50	1.57	1.21
<b>Sabi</b>	0.97	0.89	0.79	0.75	0.68	0.85
<b>Cairo Metals</b>	0.57	0.58	0.56	0.66	0.67	0.78
<b>Alex. Metals</b>	0.64	0.97	1.13	0.71	1.47	2.31
<b>Koldair</b>	1.99	2.26	2.39	2.54	2.65	3.40

The implications of the relatively higher activity ratios calculated for Telimisc may not be reflected in its degree of leverage, but they are evident in the results of the "acid test".

The profitability of the companies is measured by means of several indicators calculated in the worksheets (items 53 to 56). The Du Pont ratio for the nine public sector companies during the six-year period are given in Table 6.28. As noted earlier in the financial analysis, the results are very disappointing.

The Du Pont ratio is the product of total assets turnover and profit margin on sales. The profit margin given in table 6.17 is determined by the difference between revenues and expenses. Low values indicate that costs are too high or that product prices are too low, or both. Since there are numerous price controls and distortions in the local market, it is difficult to objectively identify the true cause. However, it is safe to conclude that the increase in total assets, by increasing debit capital to finance excessive investments in fixed assets and inventories, is detrimental to profitability in at least two ways. First, it increases expenses with interest payments on non-productive assets and second, it increases the denominator.

To reiterate and further clarify this point, the following table, which is intended to magnify the effect of interest payments on profitability and show the importance of proper and efficient management of the different elements of assets, has been constructed from the data for 1987/88.

Company	(1)	(2)	(3)	DuPont ratio	
	After-Tax Profit	Interest Payments	1+2	Based on: (1)	(3)
Ideal	(11.5)	6.1	(5.4)	(3.0)	(1.4)
Telimisc	0.5	9.4	9.9	0.3	5.4
Philips	(3.4)	7.0	3.6	(2.6)	2.7
Nasr TV	0.6	15.7	16.3	0.4	9.4
El Tramco	2.9	5.5	8.4	2.1	6.1
Sabi	(0.8)	4.0	3.2	(1.1)	4.2
Cairo Metals	(1.5)	1.6	0.1	(1.9)	0.1
Alex Metals	(1.8)	3.4	1.6	(2.9)	2.5
Koldair	0.3	2.5	2.8	0.4	4.6

Engineering Industries Subsector Study

**Table 6.28. DU PONT RATIOS OF NINE PUBLIC SECTOR COMPANIES**

<b>Company</b>	<b>1982/83</b>	<b>1983 /84</b>	<b>1984 /85</b>	<b>1985 /86</b>	<b>1986 /87</b>	<b>1987 /88</b>
<b>Ideal</b>	6.40	6.70	7.40	6.70	0.80	(3.0)
<b>Telimisr</b>	8.90	8.60	5.60	1.30	0.00	0.30
<b>Philips</b>	1.70	1.50	1.60	1.90	0.00	(2.6)
<b>Nasr TV</b>	6.30	7.60	2.80	0.00	(5.1)	0.40
<b>El-Trameco</b>	0.90	0.90	(4.0)	1.20	0.90	2.10
<b>Sabi</b>	1.10	0.50	0.00	0.00	0.00	(1.1)
<b>Cairo Metals</b>	(4.9)	(5.2)	(9.1)	(0.9)	0.20	(1.9)
<b>Alex. Metals</b>	(0.8)	(1.8)	(7.4)	(7.7)	(3.8)	(2.9)
<b>Koldair</b>	(0.8)	(2.9)	0.90	2.20	1.80	0.40

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Appendix A

Major Private Sector Engineering Products,  
1984/85 - 1986/87

Product	1984/85	1985/86	1986/87
Transport equipment	1325	2490	2300
Trailers	14550	28600	25800
Nile/marine transporters	690	835	840
Bicycles	565	1230	1100
Leaf springs	1915	3600	3600
Brake linings	840	1725	1700
Metal furniture	7130	8010	8000
Metal/mechanical fitting	5020	6010	6500
Steel nets	2930	1650	1700
Metal wires	5710	7050	9000
Deep freezers	22800	24700	25700
Electric washers/dryers	5140	4750	4800
Electric heaters	4470	4580	4500
Electric stoves	9920	9950	10000
Tin boxes and packages	7420	15100	3604
Painted tinwork	1285	1330	1100
Butane cooking equipment	10020	11010	11000
Kerosene stoves	915	702	500
Hair pins	493	2164	1600
Nails	20655	38150	39100
Sanitary fittings	5020	5804	5800
Butane lamps	359	1570	1500
Needles and clips	590	700	750
Taps	9100	1550	10000
Construction metal work	9910	11100	11200
Electric wires/cables	20080	21100	22000
Air conditioning equipment	2960	2600	2650
Fluorescent starters	1715	1110	1200
Spare parts	2275	4570	4500
Various mechanical parts	810	1630	1400
Non-mechanical agricultural equipment	870	1090	1090
Road paving equipment	520	610	610
Operation control equipment	1460	1570	1600
Scales	1820	2250	2300
Circular pumps	850	1750	1760
Dies/engraved work	635	810	825
Cutting tools	740	830	840
Television antennae	2070	2380	2300
Electric elevators and cabins	590	580	600
Various electrical products	1385	1430	1450

Source: Federation of Egyptian Industries, Annual Yearbook, 1989.

Appendix B

Law 43/1974

Fields of Operations:

All fields except petroleum exploration and production (separate law) and some service activities (i.e. restaurants, advertising).

Participation in

Equity:

Participation of Egyptian equity is mandatory but no majority or minimum participation is required (article 4).

Repatriation of Capital and Transfer of

Profits:

Repatriation of capital (article 21) and profits (article 22) are acceptable.

Ownership of Lands:

Foreign investors are not allowed to own land.

Price Controls:

No controls on prices or profits (no article except article 9 stating all projects considered private).

Law 159/1981

All fields of operation except petroleum exploration.

49% of equity should be offered to Egyptians (art. 37).

Repatriation of capital not acceptable.

Law 230/1989

Some fields excluded such as finance, exploration, consulting services, contracting, transportation.

No Egyptian participation is required except in areas decreed by the Prime Minister according to recommendation of the GAFI (art. 5).

Repatriation of profits and capital acceptable (art. 22, 23).

Foreign investors may own land and other real estate properties related to their project (art. 5, (see also article 17)).

No controls on selling prices or profit margins except by decree of the Council of Ministers for necessities.

APPENDIX B (cont'd)

Law 43/1974

Law 159/1981

Law 230/1989

Discrimination of prices paid by project as compared to private companies outside the Law to be removed (art 9)

Exchange Controls:

Exempted from foreign exchange laws. No licenses required for importing or exporting (art. 14, 15).

Subject to exchange control laws.

Same as Law 43. (art 18, 19).

Tax Holidays:

For all projects, commercial tax holiday for five years, and up to 8 years by GAFI recommendations and subject to Council of Ministers' decree (art. 16).

50% tax relief on income from shares quoted on stock exchange. Projects in New Communities enjoy a tax holiday stipulated under special law 59 of 1979 for new communities

For all projects, commercial tax holiday for five years may be extended to ten years. GAFI recommendation to the Council of Ministers (art. 11).

For projects of land reclamation, new cities and reconstruction, 10 year commercial tax holiday which may be extended for another 5 years by GAFI recommendation and is subjected to presidential decree.

For projects of land reclamation, new cities, and reconstruction, ten year commercial tax holiday which may be extended for an additional five years by GAFI recommendation, subject to the Council of Ministers.

Customs exemption on imported capital goods upon recommendation of GAFI and presidential decree (art. 16).

For projects in new communities, tax holiday is for period of ten years.

Expansion of project's capital subject to five year tax holiday.

APPENDIX B (cont'd)

Law 43/1974

Law 159/1981

Law 230/1989

Projects for medium and economical housing (leased vacant) are exempted from taxes for a period of fifteen years which may be extended by GAFI recommendation and approval of the Council of Ministers (art. 12).

For projects whose machinery and equipment have a local component of 60% or more, the tax exemption will be increased by two years.

No customs exemptions

Expansions of projects enjoy a tax holiday of five years.

Labor Laws:

Participation in profit not subject to labor laws (art. 11, 12).

No participation in management.

Distribution of minimum 10% profits to employees, up to a ceiling of one year's wages per employee (art. 41)

Some form of participation in management.

Distribution of 10% of profits to employees with no ceiling (art. 20).

Appendix C

List of manufacturing products prohibited by GOFI in 1989  
(revised annually)

Engineering Projects:

- 1 - Household cooking ovens (recommendation of inter-ministerial committee)
- 2 - Electrical cables of all types (directions of MOI-surplus production)
- 3 - Electrical towers (excess production at Metalco, Steelco and private sector)
- 4 - Metal structures (excess production at Metalco, Steelco and private sector)
- 5 - Automatic and ordinary household refrigerators (ministerial prohibition decrees)
- 6 - Steam boilers up to 12 atmospheres
- 7 - Full and semi automatic bakeries (excess capacity at military factories)
- 8 - Bolts and nuts (within the scope of military factories)
- 9 - Water and electrical meters
- 10- Workshop equipment (within scope of military factories)
- 11- Radiators and carpentry machines (within scope of military factories)
- 12- Diesel engines of different capacities.
- 13- Shock absorbers (projects allocated to military factories)
- 14- Pistons, sleeves and alloys
- 15- Agricultural tractors
- 16- Passenger cars (approval of MOI)
- 17- Trucks and buses
- 18- Railway wagons (SIMAF satisfies local requirements)

Power and Electrical Projects:

- 1 - Window and split AC units (MOI directives 9.6.1985 - sufficiency of local production)
- 2 - Electrical ovens, heater and water heaters (MOI directives 2.9.1985 - energy rationalization)
- 3 - Power generators (request of minister of military production, 9.6.1985)
- 4 - Liquid and dry batteries (MOI directives 11.11.1984 - sufficiency of local production)
- 5 - Printed circuits (request of ministry of military production, prohibition as of 19.1.1986)
- 6 - Steam boilers (request of producing company - sufficiency of local production)
- 7 - Telephones and telephone exchanges (local market satisfied, prohibited as of 21.7.1987)
- 8 - Electrical transformers (sufficiency of local production, prohibited as of 11.9.1985)
- 9 - Video (decree dated 19.3.1989)
- 10- Electrical lamps (directive dated 1.6.1987)

Engineering products permitted subject to existence of international know-how:

- 1 - Spare parts for cars, trucks, buses and microbuses:
  - Oil, water, and fuel pumps for means of transport
  - Friction brakes
  - Braking pads and braking bits for passenger cars only
  - Brakes equipment
  - Gears, loading washers and dynamo paddles
  - Driving and guiding equipment
  - Exhaust valves
  - Propeller shaft
  - Front and rear axles
  - Plastic and rubber parts
  - Spark plugs - platinum distributors - condensers
  - Electrical equipment (dynamo - starter - power distributors - etc.)
  - Measurement and counter displays (temperature - fuel - oil - speed)
  - Shock absorbers for cars
  - Fenders
  - Gaskets
  - Other feeder industries for transportation vehicles (passenger cars - trucks - buses)
- 2 - Feeder industries for tandem trailers
- 3 - Cooling stores and chambers
- 4 - Display refrigerators
- 5 - Feeder industries for refrigerators except compressors (Ideal will implement compressor production project)
- 6 - Semi automatic washing machines (preferably without electrical heating for energy rationalization as requested by Ministry of Electricity)
- 7 - Dish washers
- 8 - All types of watches and their spare parts
- 9 - Cement brick machines
- 10- Clay brick machines
- 11- Concrete mixers and batching plants
- 12- Offset printing machines
- 13- Cutting machines for paper and sheet-steel
- 14- Bending machines and presses
- 15- Equipment and machines for mechanized agriculture (except irrigation pumps)
- 16- Deep well submersible and sewage pumps (except irrigation pumps)
- 17- Agricultural trailers up to 6 tons
- 18- Offset and modern printing, not traditional
- 19- Manufacture of other capital equipment
- 20- Gas stoves for hotels and hospitals only
  - Automatic washing machines for hotels and hospitals only
  - Office refrigerators (3 feet - 4 feet) for hospitals and hotels
- 21- Workshop equipment and tools beyond the range of present domestic production
- 22- Staplers and punches
- 23- Production of tooth picks

Projects requiring an acceptable degree of local content:

- 1 - All units operating by solar energy, especially solar water heaters
- 2 - Medium tension electric distribution panels
- 3 - Spot lights for fluorescent and ordinary lamps
- 4 - Spot lights for sodium and mercury lamps
- 5 - TV antennas
- 6 - Electrical appurtenance (switches, plugs, sockets)
- 7 - Production of radios

Appendix D

Current Tariff Rates Applicable to Major Engineering Products, Law 351/1986 and its Amendments

Product	Tariff Rate	BTN Classification
Paper and cardboard	15%	1/48
Steel rods and columns (building)	20%	10/73
Extended steel nets	50%	27/73
Glazed tubs	110%	38/73
Engine pistons	50%	6/84
Air conditioning units (BU)	110%	12/84
Dryers	110%	18/84
Dishwashers	110%	19/84
Washing machines	110%	40/84
Train car spare parts	5%	9/86
Agricultural tractors	20%	1/87
Passenger cars	60%	1000CC 2/87
	160%	>2000CC
Pick-up trucks	50%	2/87
Glazed sanitary fittings, B&W	50%	8/69
Glazed sanitary fittings, colored	60%	8/69
Sanitary pipes	50%	6/69
Bulbs (glass)	110%	14/70
Steam boilers	30%	37/73
Steam boiler spares (12 tons/hr)	30%	2/84
Steam boiler spares (others)	5%	2/84
Diesel engines for tractors	10%	6/84
CV diesel engines	10%	6/84
Motorcycle engines	30%	6/84
Diesel engine spares	10%	6/84
Gas (benzine) propellers	30%	10/84
Internal Combustion Propellers	20%	10/84
Air conditioner compressors	30%	HU 11/84
Refrigerator Compressors	20%	11/84
Air conditioner fans	60%	11/84
Vacuum cleaner fans	60%	HU/10% 11/84
Refrigerators IU	20%	15/84
Refrigerator spare parts HU to 800L	60%	15/84
Refrigerator spare parts HU>800L	85%	15/84
Refrigerators (240-800 liter)	110%	15/84
Air conditioner split units	110%	15/84
Agricultural tractors	5%	24/84
Car axes and gears	20%	63/84
Electric fans	30%	6/85
Heaters	110%	12/85
Televisions	110%	15/85
VCRs	110%	15/85
Radio cassette players	110%	15/85
Radios	110%	15/85
Car stereos	110%	15/85

104

Appendix D. (cont.)

Product	Tariff Rate	BTN Classification
Wax insulated cables	30%	23/85
Plastic insulated cables	30%	23/85
Electric train cars	5%	3/86
Passenger train cars	20%	5/86
Freight train cars	20%	7/86
Train car engines	5%	6/86
Train car spare parts	5%	9/86
Automotive train cars	5%	4/86
Tractors with metal bands	10%	1/87
Tractors (for towing purposes)	20%	1/87
Buses	30%	2/87
Microbuses	30%	2/87
Trolley buses	30%	2/87
Car radiators	30%	6/87
Car glass	30%	6/87
Other car spare parts	20%	6/87
Motorcycles and spare parts	20%	9/87
Bicycles	20%	10/87
Vacuum cleaners	110%	1/96
Musical equipment spare parts	110%	13/92

\* In addition to 5% duties for the Ministry of Housing.  
 Source: Tariff Duty Tables, 4<sup>th</sup> edition, 1989. Laws

Appendix E

List of Banned Imports

- Category 73 : Iron, Iron and Steel and their products
- 73/36 : Heaters, stoves and cooking ovens
  - 73/38 : (a) Enameled bathtubs  
(b) Others
- Category 74 : Copper and its products
- 74/17 : Non-electrical household appliances for cooking and heating with copper parts
  - 74/18 : Household, kitchen and sanitary utensils and parts made of copper
- Category 76 : Aluminium and its products
- 76/2 : Aluminium rails, bars, special angles, shapes and wires
  - 76/3 : Aluminium plates and foils
  - 76/15 : Household, kitchen, and sanitary utensils and parts made of aluminium
- Category 82 : Tools, cutting and table utensils and parts made of standard metals
- 82/11/c: Shaving blades
    - (1) Finished product
    - (2) Others
  - 82/14 : Spoons, ladles, forks and fish and butter knives
- Category 84 : Boilers, machines, mechanical equipment, tools and parts
- 84/1 : Boilers for generating water vapor
  - 84/15/b: Refrigerators and cooling equipment
    - (1) Refrigerators, freezers and cooling equipment for household use
      - (a) 240 liters or less
      - (b) 240 liters to 800 liters
    - (2) Refrigerator containers
    - (3) Air conditioning equipment (split units)
    - (4) Others

- 84/6/c : Diesel Engines
  - (1) 125 horsepower or less
  - (2) 125 h.p. to 400 h.p.
  - (3) 400 h.p. to 1000 h.p.
  - (4) Others

- 84/10/d: Sprayers and cranes for liquids
  - (1) Irrigation sprayers measuring 6 to 10 inches
  - (2) Sprayers with diesel engines 125 h.p. or less
  - (3) Sprayers with electrical engines
  - (4) Others

Category 85 : Electrical tools, equipment and parts

85/3 : Batteries dry cells

85/4 : Accumulators

85/6 : Fans

85/14 : Electrical microphones, megaphones and loud speakers

85/15 : Receptors for radio and television, and remote control equipment for household and car

85/20 : Electrical lamps and tubes

Category 86 : Trains, Train cars, railway equipment and parts

86/5 : Vehicles, tram cars, mail cars and wagons for passengers and luggage

86/7 : Freight wagons for railroads and trams

Category 87 : Cars, tractors, bicycles and other vehicles

- 87/1 : (a) Tractors with chains
  - (b) Tractors for towing tugboats
  - (c) Others
    - (1) Agricultural tractors
      - (a) From 45 h.p. till 70 h.p.
      - (b) Others

- 87/2 : Passenger cars
  - (a) With internal combustion engines
    - 1- 1000cm<sup>3</sup> or less
    - 2- 1000cm<sup>3</sup> to 1300cm<sup>3</sup>
    - 3- 1300cm<sup>3</sup> to 1600cm<sup>3</sup>
    - 4- 1600cm<sup>3</sup> to 2000cm<sup>3</sup>
    - 5- Over 2000cm<sup>3</sup>
- 87/4 : Bodies of tractors and cars
- 87/9 : Motorcycles and bicycles with additional engines
- 87/10 : Bicycles without engines
- 87/13 : Cars for the transportation of children

## Appendix F

### **Definition of Terms and Ratios used in Worksheets**

The definition of the terms and ratios used in the worksheets are given below under the same headings. For ease of reference the numbers employed correspond to the item numbers in the worksheets.

#### Balance Sheet:

1. Fixed assets: Include land, buildings and construction, machinery and equipment, vehicles and mobile equipment, tools, office equipment and furniture and deferred charges.
2. Projects under construction: Include same items as above plus advance payments and L/C.
3. Inventory: Other inventory includes packing materials, scrap, goods for resale, and, mainly, L/C for purchase of materials. In fact this item may be assumed as raw material inventory.
4. Financial investments: Represents domestic long-term lending, investment in government bonds and investment in local securities.
5. Accounts receivable: Include accounts receivable, notes receivable, and advance payments to employees, insurance and customs.
6. Misc. Accounts receivable: Include advance payments to suppliers, receivables for sale of assets, and income due from rents, interest, compensations etc.
7. Cash on hand & in banks: Includes cash on hand, bank deposits and current bank accounts.
8. Transferred loss: Represents the accumulated losses to date and should in fact be visualized as a decrease in net worth.
9. Total assets: Sum of items 1 to 8
10. Capital: Includes capital owned plus any government contribution.
11. Reserves: Include statutory reserves, reserves for investment in government bonds, reserves for financing of projects, general reserves, reserves for government contribution,

general reserves, reserves for government contribution, reserves for increased cost for assets, replacement other reserves, and retained earnings.

12. Provisions: Include provisions for depreciation, disputed taxes, bad-debts, and other provisions.
13. Long-term loans: Include domestic and foreign loans.
14. Credit banks: Normally includes short-term borrowing and overdraft.
15. Accounts payable: Include accounts payable, notes payable, sundry payable for taxes, insurance and customs, and net income distribution payable.
16. Misc. accounts payable: Include accounts payable for purchase of assets, payables for rent, wages, interest, compensations, and other payables.
17. Total Liabilities: Sum of items 10 to 16
- Current Operations Acc.:
18. Income from operations: Represents revenues for sale of products and services.
19. Subsidies: Includes production and export subsidies and incentives.
20. Total sales: Sum of items 18 and 19
21. Other income: Includes income from securities, interest, rent, previous years' revenues, others.
22. Wages: Includes wages, fringe benefits and social insurance.
23. Material inputs: Include raw and auxiliary material inputs, utilities, and purchases for resale.
24. Service inputs: Includes maintenance, subcontracting, R&D, promotion, transportation; communication, equipment rent, etc.
25. Depreciation:

115

26. Interest: For domestic and foreign loans.
27. Income Tax.
28. Other expenses: Include customs, non-income-tax taxes, rent, donations, previous years expenses, capital losses, bad debts, provisions other than depreciation, property tax, and reserves for financing of projects.
29. Total expenses: Sum of items 22 to 28
30. Before tax profit: = (total sales + other income) - Total expenses + Income tax  
= (20 + 21) - 29 + 27
31. After profit: = Before tax profit - income tax.  
= (30 - 27)

Productivity Analysis:

32. Production: Value of production output in current prices
33. Sales: Total sales in current prices.
34. Local sales:
35. Export:
36. Value added: Gross value added includes wages, rents, interest, difference in value of change in finished goods inventory, current operations surplus, and depreciation.
37. Personnel: Average number of employees during year
38. Average income/worker: = Wages/number of personnel  
= (22/37).
39. Productivity of L.E. wage: = Production/wages  
= (32/22).
40. Labor productivity: = Production/number of personnel  
= (32/37).
41. Material productivity: = Production/material inputs  
= (32/23).

42. Capital productivity :  
 = Production / (fixed assets + Projects under execution + inventory)  
 = (32 / (1+2+3))
43. Capital/labor ratio:  
 = (fixed assets + projects under execution + inventory) / number of personnel  
 = (1+2+3) / 37
44. Inventory/output ratio:  
 = Inventory/production  
 = (3/32)

Ratio Analysis:

45. Current ratio:  
 = Current assets / Current liabilities  
 = (3 + 4 + 5 + 6 + 7) / (14 + 15 + 16)
46. Acid test:  
 = Current assets - inventory / current liabilities  
 = (4 + 5 + 6 + 7) / (14 + 15 + 16)
47. Debts to total assets:  
 = Total debt / Total assets  
 = (13 + 14 + 15 + 16) / 9
48. Debts to equity:  
 = Total debt / Net worth  
 = (13 + 14 + 15 + 16) / (10 + 11 + 12)
49. Inventory turn over:  
 = Sales / Inventory  
 = (20 / 3)
50. Av. collection period  
 = Receivables / (Sales / 360)  
 = (5 + 6) / (20/360)
51. Fixed assets turn over  
 = Sales / Fixed assets  
 = 20 / (1+2)
52. Total assets turnover  
 = Sales / Total assets  
 = (20/9)

53. Profit margin on sales

$$= \frac{\text{After tax profit}}{\text{Sales}}$$
$$= (31 / 200)$$

54. Return on money employed

$$= \frac{\text{After tax profit}}{\text{net total assets} - \text{current liabilities}}$$
$$= 31 / ((9+8) - (14 + 15 + 16))$$

55. Return on net worth:

$$= \frac{\text{After tax profit}}{\text{net worth}}$$
$$= 31 / (10 + 11 + 12)$$

56. Du Pont ratio:

$$= \frac{\text{Profit} \times \text{Sales}}{\text{Sales} \times \text{Assets}}$$
$$= (53 \times 52)$$

## Appendix G

### **Explanation of Layout and Computations of Worksheet.**

The financial and efficiency analysis worksheet for the public sector companies illustrates the data for 6 consecutive years.

The value of each item in the balance sheet and current operations accounts, together with production, sales, value added and personnel figures, for a particular year are entered in the first or left side column. The worksheet computes the following:

#### Component Percentages:

These are given in the second or middle column of a particular year. Component balance sheet items are computed as a percent of total assets. Subdivisions of inventory are exhibited as a fraction of inventory as unity.

Component current operations' accounts items are computed as a percent of total sales, i.e. income from operations and subsidies. So is production and sales. Local and exports sales are shown as a percent of sales. Value added is related to production.

#### Growth Rates:

The percent growth in the value of each item between two successive years is given in the third or right hand column. The growth rates for the profitability ratios are computed based on after-tax profit ratios.

#### Productivity and Ratio Analysis:

The results of computations for the various productivity indicators and financial ratios for a particular year (from items \* 38 to \* 56) are given in the first or left hand column. Profitability ratios in this column are related to after tax profits.

The same ratios based on before tax profits are shown in the adjacent column.

#### Period Growth:

The L.E. column under this heading gives the difference in values for the items between the first and last years recorded in the table.

The figures for before tax and after tax surplus/deficit under this column represent the summation of the corresponding values during the period.

The % column gives the percent change during the period. The figures for after and before tax surplus/deficit under this column represent the average annual figures during the period.

117

120  
FINAL

JANUARY 1990

USAID/EGYPT

An Annotated Description of  
The Engineering Industries  
Subsector

Appendix H

Prepared By

.....  
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120

**APPENDIX H**

**PUBLIC SECTOR FINANCIAL ANALYSIS  
WORKSHEETS  
AND  
CONSTANT PRICE DEFLATORS  
AND PRODUCTIVITY PARAMETERS.**

FINANCIAL ANALYSIS

Company: IDEAL

Million L.E.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	% of Asset																			
	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
	OR Sales																			
	% Growth																			
	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03
	Period																			
	L.E.																			
<b>BALANCE SHEET:</b>																				
<b>ASSETS:</b>																				
1. Fixed assets	26.9	15.5%	29.9	14.0%	11.2%	34.2	15.2%	14.6%	65.5	25.6%	91.2%	94.2	30.7%	43.9%	102.8	26.5%	9.1%	75.9	282.7%	
2. Projects under construction	18.3	10.5%	22.4	10.5%	-22.6%	30.5	13.6%	36.1%	32.6	12.7%	6.6%	15.0	4.9%	-54.1%	9.7	2.5%	-35.2%	-8.6	-46.9%	
3. Inventory	46.4	26.7%	41.9	19.6%	-10.0%	50.2	22.3%	20.3%	78.2	30.6%	55.7%	131.7	42.9%	68.5%	151.2	39.1%	14.6%	104.8	225.9%	
Raw materials	23.4	0.504%	21.5	0.516%	-7.6%	29.3	0.584%	36.2%	32.9	0.420%	12.1%	57.7	0.428%	75.4%	74.9	0.445%	29.5%	51.5	220.5%	
Spare parts	2.8	0.010%	3.1	0.073%	8.9%	3.9	0.077%	26.6%	4.4	0.056%	12.6%	5.3	0.040%	22.4%	9.5	0.063%	79.1%	6.7	239.9%	
In-process	1.0	0.022%	1.2	0.029%	19.2%	1.7	0.035%	44.2%	1.9	0.025%	19.6%	2.9	0.022%	48.5%	4.4	0.029%	52.6%	3.4	331.1%	
Finished goods	5.4	0.117%	6.6	0.159%	21.6%	7.6	0.151%	14.5%	3.6	0.045%	-52.1%	4.3	0.032%	20.4%	6.4	0.042%	48.4%	0.9	16.6%	
Other	13.8	0.296%	9.3	0.222%	-32.2%	7.7	0.155%	-17.6%	35.5	0.454%	362.0%	61.6	0.468%	73.7%	56.0	0.371%	-9.0%	42.3	307.4%	
4. Financial investments	6.2	3.3%	8.9	4.2%	43.4%	11.9	5.2%	32.4%	11.6	4.5%	-1.4%	12.6	4.1%	5.1%	12.6	3.3%	0.4%	6.4	103.3%	
5. Accounts receivable	3.1	1.6%	4.4	2.1%	41.6%	7.0	3.1%	59.0%	4.6	1.0%	-24.6%	5.8	1.9%	26.1%	72.2	16.7%	114.5%	69.1	223.9%	
6. Misc. accounts receivable	5.4	3.1%	7.6	3.6%	40.2%	14.1	6.3%	85.7%	14.8	5.2%	5.2%	26.4	9.6%	78.5%	19.2	4.7%	-31.2%	12.8	335.4%	
7. Cash on hand & in banks	67.0	38.6%	96.1	46.1%	45.5%	76.9	34.2%	-21.7%	49.7	19.0%	-26.7%	21.2	6.9%	-54.5%	8.5	2.2%	-59.6%	-58.8	-87.4%	
8. Transferred loss	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	11.5	3.6%	0.0%	11.5		
9. TOTAL	175.6	100.0%	213.1	100.0%	22.7%	224.7	100.0%	5.5%	255.9	100.0%	12.9%	366.8	100.0%	19.9%	386.7	100.0%	26.0%	215.1	122.7%	
<b>LIABILITIES:</b>																				
10. Capital	3.0	1.7%	3.0	1.4%	0.0%	3.0	1.3%	0.0%	3.0	1.2%	0.0%	3.0	1.0%	-0.1%	3.0	0.8%	0.1%	0.0	0.0%	
11. Reserves	32.1	18.5%	34.5	16.2%	7.6%	37.3	16.6%	8.1%	40.3	15.7%	8.0%	43.2	14.1%	7.2%	43.4	11.2%	0.5%	11.3	35.4%	
12. Provisions	33.5	19.2%	44.8	21.0%	34.0%	55.3	24.6%	23.2%	61.3	24.0%	11.0%	65.3	20.6%	3.2%	69.8	18.1%	10.2%	36.3	108.6%	
13. Long-term loans	0.3	0.2%	0.2	0.1%	-13.6%	0.2	0.1%	-15.3%	0.2	0.1%	-18.6%	4.7	1.5%	2900.0%	4.7	1.2%	-0.9%	4.4	1673.6%	
14. Credit banks	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	26.5	8.6%	0.0%	110.0	28.4%	315.5%	110.0		
15. Accounts payable	27.8	16.3%	39.7	18.6%	43.0%	50.4	22.4%	26.9%	43.2	16.9%	-14.2%	69.5	22.6%	60.7%	27.8	7.2%	-60.1%	0.0	-0.1%	
16. Misc. accounts payable	77.0	44.2%	90.8	42.6%	17.5%	78.5	34.9%	-13.5%	107.9	42.2%	57.4%	96.6	31.5%	-10.5%	128.0	33.1%	52.6%	51.0	66.3%	
17. TOTAL	175.6	100.0%	213.1	100.0%	22.7%	224.7	100.0%	5.5%	255.9	100.0%	12.9%	366.8	100.0%	19.9%	386.7	100.0%	26.0%	215.1	122.8%	
<b>CURRENT OPERATIONS ACC.:</b>																				
<b>REVENUE:</b>																				
18. Income from operations	112.7	100.0%	124.3	100.0%	10.3%	134.0	100.0%	7.8%	147.6	100.0%	10.2%	162.5	100.0%	23.6%	273.2	100.0%	49.7%	160.5	142.5%	
19. Subsidies	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	
20. Total sales	112.7	100.0%	124.3	100.0%	10.3%	134.0	100.0%	7.8%	147.6	100.0%	10.2%	162.5	100.0%	23.6%	273.2	100.0%	49.7%	160.5	142.5%	
21. Other income	5.7	5.0%	7.6	6.1%	33.9%	9.2	6.8%	20.4%	8.2	5.6%	-10.1%	4.6	2.5%	-44.6%	10.5	3.6%	125.4%	4.8	80.0%	
<b>EXPENSES:</b>																				
22. Wages	20.9	18.5%	24.3	19.6%	16.6%	26.6	19.9%	9.3%	28.8	19.5%	6.2%	25.0	19.2%	21.7%	39.6	14.5%	13.0%	18.7	67.6%	
23. Material inputs	57.8	51.2%	58.2	46.8%	0.6%	64.8	48.4%	11.4%	76.8	52.5%	18.5%	107.3	58.9%	39.7%	155.1	67.5%	72.5%	127.3	220.1%	
24. Service inputs	1.7	1.5%	2.9	1.6%	16.4%	3.0	2.2%	49.7%	3.4	2.3%	15.6%	4.6	2.5%	33.6%	5.7	2.1%	25.6%	4.0	238.6%	
25. Depreciation	2.0	1.3%	2.4	1.9%	19.1%	2.8	2.1%	16.6%	3.6	2.4%	28.3%	5.4	3.6%	51.2%	7.4	2.7%	36.3%	5.4	267.4%	
26. Interest	0.0	0.0%	0.0	0.0%	-18.8%	0.0	0.0%	0.0%	0.0	0.0%	276.5%	0.8	0.4%	1565.3%	6.1	2.2%	652.5%	6.1		
27. Income tax	5.7	5.1%	7.0	5.7%	23.3%	6.9	5.1%	-1.8%	5.2	3.6%	-23.9%	0.1	0.0%	-92.9%	0.0	0.0%	-160.0%	-5.7	-100.0%	
28. Other expenses	19.1	16.9%	23.8	19.1%	24.7%	22.4	16.7%	-6.0%	20.7	14.0%	-7.4%	31.5	17.2%	52.0%	51.2	16.7%	62.7%	32.1	165.4%	
29. Total expenses	107.2	95.2%	117.7	94.7%	9.8%	126.4	94.4%	7.4%	128.6	93.9%	9.6%	124.7	101.2%	35.3%	295.2	108.9%	59.6%	168.0	175.5%	
<b>SURPLUS/DEFICIT:</b>																				
30. Before tax	16.8	14.9%	21.2	17.1%	26.1%	23.6	17.6%	11.2%	22.5	15.2%	-4.7%	2.4	1.3%	-89.3%	(11.5)	-4.2%	-578.0%	75.1	12.5%	
31. After tax	11.1	9.5%	14.2	11.4%	27.6%	16.7	12.5%	17.7%	17.3	11.7%	3.2%	2.4	1.3%	-86.4%	(11.5)	-4.2%	-590.2%	50.2	8.4%	

PRODUCTIVITY & RATIO ANALYSIS

Company: IDEAL

Million L.E.

	(1)		(2)		(3)		(4)		(5)		(6)		Period Growth						
	Year: 1982/83		1983/84		1984/85		1985/86		1986/87		1987/88		L.E.						
	I	%	I	%	I	%	I	%	I	%	I	%	I	%					
<b>PRODUCTIVITY ANALYSIS:</b>																			
32. Production	111.6	100.6%	123.5	101.0%	10.6%	135.1	92.7%	10.3%	151.1	101.9%	11.0%	182.0	104.1%	21.1%	279.9	104.6%	52.9%	169.3	150.7%
33. Sales	110.9	98.5%	122.2	98.3%	10.2%	145.8	109.5%	20.1%	148.2	109.4%	1.6%	175.9	95.4%	18.7%	267.5	97.9%	52.0%	156.5	141.1%
34. Local	85.9	77.4%	98.5	80.6%	14.7%	130.8	89.1%	32.8%	128.3	86.6%	-1.9%	150.5	85.6%	17.3%	216.1	89.8%	43.6%	130.2	151.6%
35. Exports	25.1	22.6%	23.7	19.4%	-5.4%	16.0	10.9%	-32.4%	19.9	13.4%	24.2%	25.4	14.4%	27.6%	51.4	19.2%	102.4%	26.3	105.0%
36. Value added	44.6	39.9%	53.9	43.7%	21.0%	56.0	41.1%	3.8%	54.4	36.0%	-2.8%	51.9	28.3%	-4.6%	44.2	15.8%	-14.9%	-0.4	-0.9%
37. Personnel	8,480		8,538		0.7%	8,674		1.6%	8,080		-6.8%	8,563		6.0%	9,573		11.8%	1,093	12.9%
38. Av. income/worker, L.E.	2,460.8		2,850.2		15.6%	3,066.9		7.6%	3,560.9		16.1%	4,089.7		14.9%	4,133.5		1.1%	1672.7	68.0%
39. Productivity of L.E. wage	5.4		5.1		-5.2%	5.1		0.9%	5.3		2.6%	5.2		-0.5%	7.1		35.3%	1.7	32.2%
40. Labor productivity, L.E.	13,165.6		14,460.4		9.8%	15,695.3		8.5%	18,699.5		19.1%	21,375.7		14.3%	29,238.5		36.8%	16072.9	122.1%
41. Material productivity	1.93		2.12		9.9%	2.10		-1.0%	1.97		-6.4%	1.71		-13.3%	1.51		-11.3%		
42. Capital productivity	1.22		1.31		7.6%	1.18		-9.8%	0.86		-27.5%	0.76		-11.3%	1.06		39.7%		
43. Capital/Labor ratio	10,792.2		11,016.9		2.1%	13,256.5		20.3%	21,816.7		64.6%	28,128.0		28.9%	27,545.2		-2.1%	16752.0	155.2%
44. Inventory/Output ratio	0.42		0.34		-18.6%	0.37		9.1%	0.52		40.3%	0.72		39.1%	0.54		-24.9%		
<b>RATIO ANALYSIS:</b>																			
45. Current ratio	1.23		1.23		0.5%	1.24		0.7%	1.04		-15.8%	1.03		-1.7%	0.99		-3.7%		
46. Acid test	0.78		0.91		16.4%	0.85		-6.7%	0.53		-32.1%	0.34		-35.0%	0.42		22.4%		
47. Debt to total assets	0.61		0.61		1.4%	0.57		-6.3%	0.59		2.9%	0.64		8.7%	0.70		8.8%		
48. Debt to equity	1.53		1.59		3.6%	1.35		-14.9%	1.45		7.1%	1.80		24.5%	2.33		29.2%		
49. Inventory turnover	2.43		2.98		22.6%	2.67		-10.4%	1.89		-29.3%	1.39		-26.6%	1.81		30.4%		
50. Av. collection period, days	27		35		27.4%	57		62.9%	47		-16.5%	64		34.4%	119		87.3%		
51. Fixed assets turnover	2.50		2.38		-4.8%	2.07		-13.0%	1.50		-27.3%	1.67		11.1%	2.43		45.2%		
52. Total assets turnover	0.65		0.58		-10.1%	0.60		2.2%	0.58		-3.3%	0.59		3.1%	0.71		18.8%		
	af. tax	bf. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	
53. Profit margin on sales	9.9%	14.9%	11.4%	17.1%	15.6%	12.5%	17.6%	9.2%	11.7%	15.2%	-6.3%	1.3%	1.3%	-89.0%	-4.2%		-4.2%	-427.4%	
54. Return on money employed	15.2%	24.5%	17.2%	25.7%	6.3%	17.5%	24.7%	1.5%	16.5%	21.5%	-5.7%	2.1%	2.1%	-87.5%	-10.5%		-10.5%	-612.2%	
55. Return on net worth	16.2%	24.6%	17.3%	25.8%	6.2%	17.5%	24.7%	1.4%	16.5%	21.5%	-5.7%	2.1%	2.2%	-87.0%	-9.9%		-9.9%	-561.9%	
56. Du Pont ratio	6.4%	9.7%	6.7%	10.0%	4.0%	7.4%	10.5%	11.6%	6.7%	8.8%	-9.4%	0.8%	0.8%	-88.6%	-3.0%		-3.0%	-488.9%	

Items Keys:

First Column: 38=(22/37); 39=(32/22); 40=(32/37); 41=(32/23); 42=(32/(1+2+3)); 43=((1+2+3)/37); 44=(13/32); 45=(3+4+5+6+7)/(14+15+16); 46=(4+5+6+7)/(14+15+16); 47=(13+14+15+16)/9; 48=(13+14+15+16)/(10+11+12);  
 49=(20/3); 50=(5+6)/(20/360); 51=(20/(1+2)); 52=(20/9); 53=(31/20); 54=31/(19-8)-(14+15+16); 55=(31/(10+11+12)); 56=(31/20)/(20/9)  
 Second Column: 39=(32/22); 41=(32/23); 35=(35/33); 36=(36/32)

123

FINANCIAL ANALYSIS

Company: KOLCARR

Million L.E.

	(1) Year: 1982/83	% of Asset OR Sales	(2) 1983/84	% of Asset OR Sales	% Growth	(3) 1984/85	% of Asset OR Sales	% Growth	(4) 1985/86	% of Asset OR Sales	% Growth	(5) 1986/87	% of Asset OR Sales	% Growth	(6) 1987/88	% of Asset OR Sales	% Growth	Period L.E.	Growth %
<b>BALANCE SHEET:</b>																			
<b>ASSETS:</b>																			
1. Fixed assets	7.2	20.6%	7.9	23.7%	9.6%	9.0	23.7%	13.6%	10.9	25.0%	21.2%	11.3	25.9%	3.4%	11.8	19.5%	4.5%	4.6	63.0%
2. Projects under construction	2.2	6.4%	2.1	6.3%	-6.0%	1.8	-4.6%	-16.5%	0.6	1.3%	-65.6%	0.7	1.5%	29.3%	1.0	1.6%	37.5%	-1.3	-56.1%
3. Inventory	15.3	55.1%	15.7	46.9%	-18.8%	18.0	47.3%	14.5%	22.6	52.0%	25.7%	21.4	45.4%	-5.1%	33.8	58.0%	57.8%	14.5	75.1%
Raw materials	11.1	0.575%	10.4	0.660%	-6.8%	10.9	0.606%	5.2%	12.7	0.564%	16.9%	8.9	0.415%	-30.2%	23.1	0.654%	160.2%	12.0	106.3%
Spare parts	1.0	0.052%	1.0	0.061%	-3.9%	0.9	0.051%	-4.8%	0.9	0.040%	-1.5%	0.9	0.042%	0.9%	0.9	0.027%	1.1%	-0.1	-8.3%
In-process	3.7	0.191%	2.3	0.147%	-37.4%	2.3	0.131%	1.5%	1.5	0.066%	-56.3%	2.2	0.133%	47.5%	2.0	0.060%	-6.1%	-1.7	-45.2%
Finished goods	1.6	0.082%	1.2	0.076%	-24.9%	1.9	0.105%	56.1%	5.6	0.249%	152.5%	2.6	0.123%	-53.2%	2.2	0.065%	-16.7%	0.6	36.0%
Other	1.9	0.100%	0.9	0.056%	-55.1%	1.9	0.107%	121.2%	1.8	0.081%	-5.0%	6.8	0.317%	271.6%	5.6	0.164%	-18.3%	3.6	186.6%
4. Financial investments	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%
5. Accounts receivable	3.6	10.3%	4.2	12.5%	15.5%	5.3	13.9%	25.6%	7.4	17.1%	41.2%	12.9	22.9%	45.0%	11.5	19.0%	6.6%	7.9	216.7%
6. Misc. accounts receivable	1.0	3.0%	0.8	2.3%	-25.6%	1.2	3.2%	57.6%	0.7	1.7%	-49.7%	0.6	1.5%	-16.7%	1.3	2.2%	121.7%	0.3	28.3%
7. Cash on hand & in banks	0.4	1.2%	0.6	1.7%	22.0%	0.6	1.6%	5.7%	0.4	0.9%	-24.2%	1.5	2.2%	279.6%	1.0	1.6%	-36.2%	0.5	117.6%
8. Transferred loss	1.2	3.4%	2.2	6.4%	81.5%	2.2	5.7%	0.0%	0.9	2.0%	-69.2%	0.9	1.8%	0.0%	0.0	0.0%	-100.0%	-1.2	-100.0%
9. TOTAL	35.1	100.0%	33.4	100.0%	-4.8%	28.0	100.0%	15.7%	43.5	100.0%	14.4%	47.2	100.0%	8.5%	60.4	100.0%	28.0%	25.3	72.1%
<b>LIABILITIES:</b>																			
10. Capital	7.0	19.9%	7.2	21.4%	2.2%	7.2	18.8%	0.0%	9.1	21.0%	27.5%	9.1	19.3%	0.0%	9.1	15.1%	0.0%	2.1	30.2%
11. Reserves	0.6	1.6%	0.6	1.8%	7.9%	1.0	2.7%	66.3%	0.8	1.7%	-26.6%	1.7	3.6%	126.6%	1.0	1.7%	-38.5%	0.5	83.5%
12. Provisions	4.5	12.8%	4.9	14.8%	10.0%	5.4	14.2%	10.2%	6.1	14.1%	12.5%	7.4	15.6%	20.2%	8.3	13.7%	12.3%	3.8	84.0%
13. Long-term loans	1.8	5.1%	1.7	5.1%	-4.6%	1.6	4.1%	-7.5%	1.7	3.9%	7.6%	1.7	3.6%	-0.4%	2.0	3.3%	16.9%	0.2	10.6%
14. Credit banks	7.4	21.1%	7.7	23.0%	3.9%	12.6	33.1%	63.4%	14.9	24.2%	18.3%	11.7	24.8%	-21.3%	20.0	32.1%	70.6%	12.6	169.7%
15. Accounts payable	3.1	8.8%	2.0	5.9%	-36.4%	2.0	5.3%	2.1%	1.6	7.6%	-21.6%	2.2	4.6%	39.5%	3.7	6.1%	68.2%	0.6	19.4%
16. Misc. accounts payable	10.9	30.7%	9.4	28.0%	-13.1%	8.2	21.6%	-12.2%	9.3	21.5%	15.6%	12.4	28.4%	43.5%	16.3	27.1%	21.9%	5.6	51.7%
17. TOTAL	35.1	100.0%	33.4	100.0%	-4.8%	28.0	100.0%	13.7%	43.5	100.0%	14.4%	47.2	100.0%	8.5%	60.4	100.0%	28.0%	25.3	72.1%
<b>CURRENT OPERATIONS ACC.:</b>																			
<b>REVENUE:</b>																			
18. Income from operations	18.9	100.0%	22.6	100.0%	19.8%	25.6	100.0%	13.5%	29.1	100.0%	15.4%	31.7	100.0%	9.2%	43.4	100.0%	36.7%	24.5	130.1%
19. Subsidies	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%
20. Total sales	18.9	100.0%	22.6	100.0%	19.8%	25.6	100.0%	13.5%	29.1	100.0%	15.4%	31.7	100.0%	9.2%	43.4	100.0%	36.7%	24.5	130.1%
21. Other income	0.4	2.1%	0.5	2.0%	15.7%	0.6	2.4%	37.5%	0.6	1.9%	-9.4%	0.7	2.1%	16.5%	1.0	2.3%	51.5%	0.6	154.8%
<b>EXPENSES:</b>																			
22. Wages	5.7	30.4%	7.3	32.4%	28.0%	8.4	32.9%	15.3%	8.5	29.1%	0.2%	8.7	27.4%	2.6%	10.5	24.3%	21.4%	4.8	84.1%
23. Material inputs	9.5	50.6%	11.4	50.5%	19.5%	11.9	46.4%	4.2%	12.7	43.5%	6.5%	13.9	43.9%	9.8%	19.9	45.8%	43.2%	10.3	108.4%
24. Service inputs	0.7	3.6%	0.8	3.7%	23.0%	1.1	4.3%	29.1%	1.0	3.6%	-10.5%	1.8	5.8%	74.4%	1.9	4.4%	3.4%	1.2	175.7%
25. Depreciation	0.5	2.9%	0.6	2.5%	7.9%	0.6	2.4%	9.5%	0.7	2.6%	21.0%	0.9	2.7%	17.1%	0.9	2.1%	3.6%	0.4	73.8%
26. Interest	1.0	5.5%	1.4	6.0%	29.8%	1.5	5.9%	12.5%	1.9	6.7%	27.8%	1.7	5.4%	-12.3%	2.5	5.6%	48.4%	1.5	142.6%
27. Income tax	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.5	1.4%	0.0%	0.1	0.3%	-68.9%	0.1	
28. Other expenses	2.0	10.6%	2.5	11.2%	26.9%	2.3	9.1%	-7.8%	3.8	15.2%	65.7%	4.1	12.9%	7.3%	8.2	18.9%	100.1%	6.2	311.4%
29. Total expenses	19.5	103.5%	24.0	106.3%	23.1%	25.9	101.0%	7.9%	28.7	99.6%	10.7%	31.5	99.4%	10.0%	44.1	101.7%	39.9%	24.6	126.0%
<b>SURPLUS/DEFICIT:</b>																			
30. Before tax	(0.3)	-1.4%	(1.0)	-4.4%	-265.8%	0.4	1.4%	135.8%	1.0	3.3%	171.3%	1.3	4.1%	37.5%	0.4	0.9%	-69.2%	1.8	0.3
31. After tax	(0.3)	-1.4%	(1.0)	-4.4%	-265.8%	0.4	1.4%	135.8%	1.0	3.3%	171.3%	0.9	2.7%	-10.7%	0.3	0.6%	-69.4%	1.2	0.2

124-

PRODUCTIVITY & RATIO ANALYSIS

Company: KGLCAIR

Million L.E.

	(1) Year: 1982/83	I	(2) 1983/84	I	I Growth	(3) 1984/85	I	I Growth	(4) 1985/86	I	I Growth	(5) 1986/87	I	I Growth	(6) 1987/88	I	I Growth	Period Growth L.E.	I
<b>PRODUCTIVITY ANALYSIS:</b>																			
32. Production	16.7	91.5%	23.8	98.4%	42.4%	25.2	103.7%	5.9%	32.3	125.6%	25.0%	28.5	84.2%	-11.7%	45.9	100.1%	54.2%	27.2	162.9%
33. Sales	18.3	96.9%	24.2	107.0%	32.4%	24.3	94.8%	0.5%	25.7	85.4%	5.7%	35.9	106.7%	31.8%	43.9	101.2%	29.6%	25.6	140.2%
34. Local	17.5	95.8%	22.5	93.2%	28.8%	23.3	95.9%	3.4%	25.4	99.0%	9.2%	32.5	96.0%	27.6%	39.1	89.2%	20.5%	21.6	123.7%
35. Exports	0.8	4.2%	1.7	6.8%	114.0%	1.0	4.1%	-39.3%	0.3	1.0%	-70.8%	1.4	4.0%	417.4%	4.7	10.3%	247.1%	4.0	512.5%
36. Value added	7.0	42.1%	8.3	25.0%	18.2%	11.0	43.5%	31.7%	16.2	50.1%	47.5%	11.5	43.4%	-28.7%	15.8	36.2%	37.1%	8.8	124.4%
37. Personnel	2,459		2,664		-0.9%	2,558		-4.0%	2,800		9.5%	2,403		-14.2%	2,345		-2.4%	(344)	-12.8%
38. Av. income/worker, L.E.	2,125.4		2,751.1		29.2%	3,302.2		20.0%	3,621.8		-8.5%	3,612.8		19.6%	4,474.7		24.4%	2265.3	111.1%
39. Productivity of L.E. wage	2.9		3.2		11.2%	3.0		-8.1%	3.8		27.8%	3.3		-14.0%	4.2		27.0%	1.2	42.8%
40. Labor productivity, L.E.	6,217.6		8,927.7		43.7%	9,855.0		10.3%	11,528.6		17.0%	11,656.2		2.9%	18,743.5		59.6%	12522.7	261.4%
41. Material productivity	1.75		2.09		19.1%	2.12		1.5%	2.55		21.4%	2.05		-19.6%	2.21		7.7%		
42. Capital productivity	0.55		0.92		59.5%	0.88		-5.2%	0.95		6.0%	0.85		-10.1%	0.94		10.6%		
43. Capital/Labor ratio	10,766.6		9,650.5		-9.9%	11,226.3		16.3%	12,155.7		8.2%	13,925.5		14.4%	19,865.2		42.9%	9161.6	85.6%
44. Inventory/Output ratio	1.16		0.66		-43.0%	0.71		8.2%	0.70		-1.8%	0.75		7.5%	0.77		2.4%		
<b>RATIO ANALYSIS:</b>																			
45. Current ratio	1.15		1.12		-2.9%	1.10		-1.5%	1.21		9.5%	1.26		4.0%	1.19		-5.3%		
46. Acid test	0.24		0.29		21.2%	0.31		6.8%	0.33		6.6%	0.47		41.9%	0.35		-26.9%		
47. Debt to total assets	0.65		0.62		-5.6%	0.64		3.5%	0.63		-1.5%	0.61		-2.9%	0.70		12.1%		
48. Debt to equity	1.31		1.65		24.7%	1.79		9.8%	1.72		-3.9%	1.69		-7.2%	2.28		42.6%		
49. Inventory turnover	0.99		1.44		47.6%	1.43		-0.9%	1.29		-9.8%	1.48		15.1%	1.22		-13.4%		
50. Av. collection period, days	89		79		-11.3%	91		15.2%	101		10.9%	129		27.5%	107		-17.5%		
51. Fixed assets turnover	1.99		2.26		13.2%	2.39		5.8%	2.54		6.5%	2.65		4.3%	3.40		28.3%		
52. Total assets turnover	0.54		0.63		25.9%	0.67		-0.2%	0.67		-0.9%	0.67		0.6%	0.72		6.7%		
	af. tax	bf. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax
53. Profit margin on sales	-1.4%	-1.4%	-4.4%	-4.4%	-295.2%	1.4%	1.4%	131.5%	3.3%	3.3%	139.3%	2.7%	4.1%	-18.2%	0.5%	0.9%	-77.6%		
54. Return on money employed	-2.1%	-2.1%	-8.0%	-8.0%	-277.8%	2.7%	2.7%	133.6%	5.7%	5.7%	110.2%	4.5%	6.9%	-20.9%	1.3%	2.6%	-71.5%		
55. Return on net worth	-2.2%	-2.2%	-7.7%	-7.7%	-247.2%	2.6%	2.6%	133.4%	6.0%	6.0%	131.1%	4.7%	7.2%	-21.4%	1.4%	2.2%	-69.8%		
56. Du Pont ratio	-0.8%	-0.8%	-2.9%	-2.9%	-254.2%	0.9%	0.9%	131.5%	2.2%	2.2%	127.1%	1.8%	2.5%	-17.7%	0.4%	0.7%	-76.1%		

Item Key:

First Column: 28=(22/37); 39=(32/22); 40=(32/27); 41=(32/25); 42=(22/(1+2+3)); 43=(11+20/37); 44=(3/32); 45=(3+4+5+6+7)/(1+15+16); 46=(4+5+6+7)/(1+15+16); 47=(13+14+15+16)/9; 48=(12+14+15+16)/(10+11+12);  
 49=(20/3); 50=(15+6)/(20/60); 51=(20/(1+21)); 52=(20/9); 53=(31/20); 54=(31/(1+8)-(1+15+16)); 55=(31/(10+11+12)); 56=(31/20)(20/9)  
 Second Column: 32=(32/33); 33=(33/20); 34=(34/33); 35=(35/33); 36=(26/32)

FINANCIAL ANALYSIS

Company: SABIC

Million L.E.

	(1)	% of Asset!	(2)	% of Asset!	% Growth!	(3)	% of Asset!	% Growth!	(4)	% of Asset!	% Growth!	(5)	% of Asset!	% Growth!	(6)	% of Asset!	% Growth!	Period	Growth	
	Year:	1982/E3	DR Sales	1983/E4	DR Sales		1984/E5	GR Sales		1985/E6	DR Sales		1986/E7	DR Sales		1987/E8	DR Sales		L.E.	%
BALANCE SHEET:																				
ASSETS:																				
1. Fixed assets	10.4	-2.9%	16.1	39.1%	24.5%	20.1	39.9%	24.5%	25.5	47.9%	27.1%	29.3	46.6%	14.7%	31.8	41.9%	8.4%	18.8	145.0%	
2. Projects under construction	2.1	6.8%	4.5	10.9%	118.5%	6.1	12.2%	37.1%	4.1	7.7%	-30.5%	3.4	5.4%	-17.0%	2.0	2.7%	-39.5%	0.0	-0.2%	
3. Inventory	13.1	43.3%	17.5	42.4%	33.6%	19.1	37.9%	9.1%	19.4	34.6%	-0.4%	19.4	30.9%	5.5%	30.4	46.1%	56.6%	17.3	132.4%	
Raw materials	5.1	0.39%	7.0	0.40%	37.0%	8.4	0.44%	19.8%	7.3	0.39%	-10.4%	6.3	0.32%	-13.0%	13.8	0.45%	117.5%	8.6	169.9%	
Spare parts	1.8	0.13%	2.1	0.12%	17.9%	2.2	0.11%	5.5%	2.5	0.13%	10.9%	1.7	0.09%	-32.0%	3.2	0.16%	84.2%	1.4	77.5%	
In-process	1.3	0.6%	1.5	0.09%	20.0%	1.8	0.09%	18.2%	1.8	0.09%	-1.4%	2.2	0.11%	24.9%	2.8	0.09%	26.7%	1.5	121.4%	
Finished goods	2.3	0.17%	3.7	0.21%	61.7%	4.1	0.21%	8.8%	5.1	0.27%	24.8%	5.1	0.26%	0.3%	6.2	0.24%	22.2%	3.9	169.2%	
Other	2.6	0.20%	3.2	0.18%	19.4%	2.6	0.13%	-16.6%	1.8	0.09%	-21.1%	4.1	0.21%	127.1%	4.5	0.14%	10.0%	1.9	71.4%	
4. Financial investments	0.5	1.6%	0.5	1.1%	0.0%	0.5	0.9%	1.3%	0.5	0.9%	0.0%	0.5	0.8%	0.0%	0.5	0.8%	0.0%	0.0	1.5%	
5. Accounts receivable	1.1	2.7%	2.1	5.0%	81.2%	3.2	6.3%	55.3%	3.5	6.6%	5.9%	5.2	8.2%	47.7%	8.5	11.0%	64.9%	7.4	653.6%	
6. Misc. accounts receivable	0.5	1.6%	0.6	1.5%	25.6%	1.3	2.6%	112.3%	1.2	2.3%	-9.9%	0.2	0.3%	-85.4%	1.3	1.5%	651.0%	0.9	171.6%	
7. Cash on hand & in banks	0.9	0.6%	0.9	0.6%	0.0%	0.9	0.1%	0.0%	0.9	6.1%	26.9%	4.9	7.7%	14621.2%	0.4	0.5%	-91.8%	0.4		
8. Transferred loss	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	1.1%	0.0%	0.0	0.8	
9. TOTAL	30.2	100.0%	41.3	100.0%	26.6%	50.3	100.0%	22.0%	50.3	100.0%	5.8%	60.8	100.0%	17.9%	75.9	100.0%	20.8%	45.6	151.0%	
LIABILITIES:																				
10. Capital	9.7	32.0%	9.7	23.4%	0.0%	9.7	19.2%	0.0%	10.4	19.6%	8.0%	10.4	16.8%	0.0%	10.4	13.6%	0.0%	0.8	8.0%	
11. Reserves	0.9	3.0%	1.0	2.3%	7.9%	1.0	2.0%	6.4%	1.1	2.1%	6.5%	1.2	1.9%	8.3%	1.3	1.7%	10.4%	0.4	49.4%	
12. Provisions	5.0	16.4%	7.1	17.2%	44.4%	8.6	17.1%	20.4%	10.2	19.1%	18.3%	11.3	18.0%	11.0%	12.8	16.9%	13.3%	7.9	158.6%	
13. Long-term loans	6.5	21.5%	10.3	25.1%	59.3%	13.4	26.6%	29.7%	14.5	27.2%	8.2%	14.8	23.5%	1.9%	16.9	22.7%	14.5%	10.4	160.7%	
14. Credit banks	3.7	12.3%	7.9	19.0%	110.4%	10.1	20.2%	29.5%	9.6	19.1%	-5.0%	15.4	24.4%	59.4%	24.8	32.7%	61.4%	21.1	565.5%	
15. Accounts payable	2.3	9.3%	2.7	6.4%	-5.0%	3.6	7.2%	37.0%	2.6	4.6%	-29.9%	5.5	5.5%	36.0%	3.1	4.2%	-12.2%	0.3	9.0%	
16. Misc. accounts payable	1.7	5.6%	2.7	6.4%	56.2%	3.9	7.7%	45.2%	4.9	9.1%	26.1%	6.2	9.9%	28.6%	6.5	8.6%	4.4%	4.8	294.2%	
17. TOTAL	30.2	100.0%	41.3	100.0%	26.6%	50.3	100.0%	22.0%	50.3	100.0%	5.8%	60.8	100.0%	17.9%	75.9	100.0%	20.8%	45.6	151.0%	
CURRENT OPERATIONS ACC.:																				
REVENUE:																				
18. Income from operations	14.6	100.0%	18.3	100.0%	25.2%	20.8	100.0%	15.2%	22.2	100.0%	6.8%	22.3	100.0%	0.6%	28.6	100.0%	29.3%	14.0	95.5%	
19. Subsidies	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	
20. Total sales	14.6	100.0%	18.3	100.0%	25.2%	20.8	100.0%	15.2%	22.2	100.0%	6.8%	22.3	100.0%	0.6%	28.6	100.0%	29.3%	14.0	95.5%	
21. Other income	0.2	1.7%	0.4	2.1%	54.6%	0.5	2.3%	22.9%	0.4	2.0%	-6.1%	0.2	1.0%	-47.7%	0.6	2.2%	179.2%	0.4	155.6%	
EXPENSES:																				
22. Wages	3.7	25.2%	4.7	25.8%	28.2%	5.8	28.1%	23.7%	6.1	27.5%	4.5%	5.8	25.9%	-5.3%	6.8	23.5%	17.9%	3.1	85.0%	
23. Material inputs	7.4	50.5%	7.7	41.8%	3.7%	9.7	46.8%	26.3%	10.1	45.5%	3.6%	9.9	44.4%	-1.6%	14.2	49.7%	43.5%	6.8	92.6%	
24. Service inputs	0.4	2.6%	0.4	2.4%	15.0%	0.5	2.5%	20.5%	0.7	3.0%	24.2%	0.9	3.4%	14.9%	0.7	2.6%	-2.1%	0.4	93.7%	
25. Depreciation	0.8	5.7%	1.2	6.3%	50.5%	1.5	7.1%	17.9%	1.7	7.5%	13.0%	1.7	7.7%	3.2%	2.1	7.3%	20.9%	1.2	150.5%	
26. Interest	0.7	4.5%	1.3	7.2%	102.1%	2.1	10.3%	60.9%	2.5	11.3%	17.7%	2.6	11.3%	5.1%	4.3	13.8%	50.2%	3.3	503.6%	
27. Income tax	0.0	0.0%	0.3	1.7%		0.0	0.0%	-99.1%	0.0	0.0%	-33.0%	0.0	0.0%	-100.0%	0.0	0.0%	0.0%	0.0	-100.0%	
28. Other expenses	1.6	11.1%	2.8	15.1%	70.6%	1.5	7.4%	-44.5%	1.6	7.2%	4.2%	1.7	7.8%	8.8%	2.3	7.9%	30.8%	0.7	40.3%	
29. Total expenses	14.6	99.4%	19.5	100.9%	27.1%	21.2	102.2%	14.7%	22.6	102.0%	6.5%	22.5	101.3%	-0.3%	30.1	105.1%	33.5%	15.5	106.7%	
SURPLUS/DEFICIT:																				
30. Before tax	0.3	2.3%	0.6	3.1%	70.3%	0.0	0.0%	-99.4%	0.0	0.0%	-77.8%	0.0	0.0%	-100.0%	(0.3)	-2.9%		0.1	0.0	
31. After tax	0.3	2.2%	0.2	1.2%	-33.1%	0.0	0.0%	-97.3%	(0.0)	0.0%	-100.0%	0.0	0.0%	553.6%	(0.8)	-2.9%		-0.3	0.0	

126

PRODUCTIVITY & RATIO ANALYSIS

Company: SASI

Million L.E.

	(1)	%	(2)	%	% Growth	(3)	%	% Growth	(4)	%	% Growth	(5)	%	% Growth	(6)	%	% Growth	Period Growth	
	Year: 1982/83		1983/84		1984/85			1985/86			1986/87			1987/88			L.E.	%	
<b>PRODUCTIVITY ANALYSIS:</b>																			
32. Production	13.9	97.3%	18.1	111.1%	30.4%	20.0	101.7%	16.5%	22.1	107.2%	16.4%	22.0	104.0%	-0.2%	27.3	104.4%	25.8%	13.4	98.6%
33. Sales	14.3	97.4%	16.3	85.7%	14.1%	19.6	94.6%	20.7%	29.6	92.8%	4.8%	21.2	94.8%	2.5%	26.1	91.2%	25.3%	11.8	83.1%
34. Local	14.2	99.9%	15.3	100.0%	14.2%	19.6	99.9%	20.6%	20.6	100.0%	4.9%	21.9	98.8%	1.7%	25.9	95.3%	23.8%	11.7	82.0%
35. Exports	0.0	0.1%	0.0	0.0%	-78.9%	0.0	0.1%	375.0%	0.0	0.0%	-100.0%	0.2	1.7%	0.6%	0.2	0.7%	-20.7%	0.2	926.3%
36. Value added	5.8	41.8%	9.8	54.3%	69.0%	12.1	60.5%	23.1%	10.9	49.3%	-10.1%	11.5	51.2%	5.8%	12.3	44.9%	6.6%	6.4	110.8%
37. Personnel	2,369		2,585		9.5%	2,681		3.7%	2,422		-9.7%	2,269		-8.8%	2,246		1.7%	(114)	-4.6%
38. Av. income/worker, L.E.	1,581.9		1,827.9		17.0%	2,180.2		19.3%	2,522.3		15.7%	2,619.6		3.9%	3,035.6		15.9%	1473.8	94.4%
39. Productivity of L.E. wage	3.8		3.8		1.7%	3.4		-10.7%	2.6		-5.6%	2.8		5.4%	4.9		5.0%	0.2	6.3%
40. Labor productivity, L.E.	5,875.4		6,993.4		19.0%	7,451.3		6.5%	9,165.3		22.2%	9,970.1		9.5%	12,126.7		21.7%	6361.3	166.6%
41. Material productivity	1.83		2.16		25.7%	2.06		-12.9%	2.19		6.4%	2.22		1.5%	1.92		-15.7%		
42. Capital productivity	0.49		0.47		-3.9%	0.44		-7.0%	0.46		4.1%	0.42		-8.0%	0.42		0.4%		
43. Capital/Labor ratio	11,914.9		14,749.3		23.8%	16,906.4		14.6%	19,945.9		17.4%	23,696.0		19.0%	28,609.5		21.2%	16695.5	140.1%
44. Inventory/Output ratio	0.94		0.97		2.5%	0.96		-1.3%	0.84		-12.5%	0.88		5.7%	1.12		26.5%		
<b>RATIO ANALYSIS:</b>																			
45. Current ratio	1.85		1.57		-15.1%	1.37		-13.0%	1.39		1.6%	1.20		-13.4%	1.20		-0.2%		
46. Acid test	0.76		0.24		-6.3%	0.28		18.9%	0.31		7.7%	0.45		39.0%	0.31		-26.5%		
47. Debt to total assets	0.4%		0.57		16.9%	0.62		8.4%	0.59		-4.0%	0.65		7.2%	0.69		6.5%		
48. Debt to equity	0.55		1.32		39.2%	1.61		21.8%	1.45		-9.8%	1.74		19.3%	2.09		20.2%		
49. Inventory turnover	1.12		1.05		-6.2%	1.09		3.3%	1.20		10.6%	1.15		-4.6%	0.94		-18.1%		
50. Av. collection period, days	49		53		31.2%	78		49.1%	77		-2.3%	56		12.8%	124		44.0%		
51. Fixed assets turnover	0.97		0.89		-8.8%	0.79		-11.0%	0.75		-5.4%	0.89		-8.5%	0.85		25.9%		
52. Total assets turnover	0.48		0.44		-8.3%	0.41		-7.2%	0.42		1.0%	0.36		-14.5%	0.38		6.2%		
	af. tax	bf. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	bf. tax	af. tax	af. tax	
53. Profit margin on sales	2.2%	2.3%	1.2%	3.1%	-46.6%	0.0%	0.0%	-97.6%	0.0%	0.0%	-100.0%	0.0%	0.0%	551.1%	-2.9%	-2.9%			
54. Return on money employed	1.5%	1.5%	0.8%	2.0%	-47.7%	0.0%	0.0%	-97.7%	0.0%	0.0%	-100.0%	0.0%	0.0%	529.9%	-2.1%	-2.1%			
55. Return on net worth	2.1%	2.1%	1.2%	3.2%	-41.7%	0.0%	0.0%	-97.5%	0.0%	0.0%	-100.0%	0.0%	0.0%	529.9%	-3.4%	-3.4%			
55. Du Pont ratio	1.1%	1.1%	0.5%	1.4%	-51.0%	0.0%	0.0%	-97.8%	0.0%	0.0%	-100.0%	0.0%	0.0%	435.0%	-1.1%	-1.1%			

Item Keys:

First Column: 38=(32/37); 39=(32/22); 40=(32/35); 41=(32/23); 42=(32/(1+2+3)); 43=(11+2+3)/37; 44=(3/32); 45=(3+4+5+6+7)/(11+15+16); 46=(4+5+6+7)/(11+15+16); 47=(15+14+15+16)/9; 48=(13+14+15+16)/(10+11+12); 49=(20/3); 50=(5+6)/(20/260); 51=(20/(1+21)); 52=(20/9); 53=(31/20); 54=51/(19-8)-(14+15+16); 55=(31/(10+11+12)); 56=(31/20)\*(20/9)  
 Second Column: 32=(32/33); 33=(33/20); 34=(34/33); 35=(35/33); 36=(36/32)

FINANCIAL ANALYSIS

Company: EL TRAKCO

Million L.E.

	(1) % of Asset		(2) % of Asset		(3) % of Asset		(4) % of Asset		(5) % of Asset		(6) % of Asset		(7) % of Asset		Period Growth		
	Year: 1982/83	DR Sales	1983/84	DR Sales	1984/85	DR Sales	1985/86	DR Sales	1986/87	DR Sales	1987/88	DR Sales	1988/89	DR Sales	L.E.	%	
<b>BALANCE SHEET:</b>																	
<b>ASSETS:</b>																	
1. Fixed assets	7.6	16.4%	7.9	11.9%	4.5%	10.1	13.4%	27.7%	16.3	19.2%	20.7%	22.9	24.0%	40.4%	38.1	27.7%	66.8%
2. Projects under constructio	6.1	13.2%	9.8	14.7%	20.6%	13.0	17.2%	32.1%	13.4	15.7%	2.7%	15.8	16.5%	18.0%	18.0	13.1%	14.4%
3. Inventory	21.4	46.3%	20.2	45.0%	41.1%	25.9	34.1%	-14.5%	28.7	33.8%	11.1%	31.8	32.4%	10.9%	48.5	35.2%	52.4%
Raw materials	3.9	8.1%	4.1	0.13%	5.2%	5.1	0.19%	22.8%	5.0	0.17%	-0.5%	7.9	0.25%	57.8%	6.4	0.17%	6.0%
Spare parts	1.4	0.06%	1.6	0.05%	11.7%	1.9	0.07%	19.6%	2.1	0.07%	9.3%	1.5	0.05%	-10.7%	2.3	0.04%	-7.7%
In-process	1.9	0.04%	3.4	0.11%	89.0%	2.2	0.08%	-34.3%	2.9	0.10%	21.3%	2.2	0.07%	-22.5%	2.1	0.04%	-0.4%
Finished goods	5.7	0.26%	9.6	0.31%	67.9%	6.2	0.23%	-36.0%	5.9	0.20%	-5.0%	6.8	0.05%	-85.6%	5.3	0.11%	542.0%
Other	6.5	0.39%	11.5	0.38%	35.7%	10.5	0.40%	-8.9%	12.8	0.44%	21.9%	15.0	0.55%	45.0%	30.4	0.62%	60.1%
4. Financial investments	0.2	0.5%	0.2	0.0%	9.3%	0.2	0.3%	0.0%	0.2	0.3%	6.0%	0.2	0.0%	0.4%	6.2	0.0%	-0.4%
5. Accounts receivable	5.2	19.6%	17.1	25.4%	85.5%	25.4	33.6%	48.9%	22.0	25.9%	-12.4%	21.8	21.8%	-5.8%	27.3	19.3%	31.3%
6. Misc. accounts receivable	1.0	2.1%	1.5	2.2%	58.8%	1.0	1.3%	-36.2%	2.2	2.6%	125.5%	2.6	2.6%	21.4%	2.6	1.5%	-0.6%
7. Cash on hand & in banks	0.8	1.8%	0.0	0.0%	-60.6%	0.1	0.1%	-76.6%	0.1	0.1%	29.8%	1.2	1.2%	254.1%	2.7	1.5%	129.1%
8. Transferred loss	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	1.9	2.3%	0.0%	0.0	0.0%	-100.0%	0.0	0.0%	0.0%
9. TOTAL	42.3	100.0%	67.2	100.0%	45.1%	75.7	100.0%	12.6%	84.9	100.0%	12.1%	95.3	100.0%	12.2%	137.5	100.0%	44.3%
<b>LIABILITIES:</b>																	
10. Capital	10.7	25.2%	11.1	16.6%	3.7%	11.2	14.7%	0.3%	14.1	16.6%	26.2%	14.1	14.8%	0.0%	14.1	10.3%	0.0%
11. Reserves	2.4	5.1%	2.4	3.8%	8.3%	2.6	3.5%	1.9%	3.0	3.5%	12.8%	3.1	3.2%	5.9%	4.4	3.2%	39.9%
12. Provisions	6.6	18.6%	10.9	16.1%	25.5%	13.7	18.1%	26.8%	15.7	18.4%	14.3%	14.8	15.6%	-5.2%	15.2	11.0%	2.3%
13. Long-term loans	3.6	7.8%	6.4	9.5%	76.4%	8.1	10.7%	26.8%	14.1	16.6%	74.0%	22.0	22.0%	56.1%	29.8	21.8%	35.5%
14. Credit banks	8.7	18.8%	20.8	30.9%	139.1%	25.7	34.0%	24.0%	21.2	25.0%	-17.5%	22.4	24.5%	10.3%	56.3	41.0%	140.8%
15. Accounts payable	10.1	21.9%	12.1	17.9%	19.0%	13.5	17.8%	11.7%	11.1	13.1%	-17.5%	9.2	9.5%	-17.5%	8.0	5.8%	-12.8%
16. Misc. accounts payable	2.2	4.7%	5.5	8.2%	61.4%	4.0	5.2%	14.2%	5.8	6.8%	45.7%	6.7	6.8%	51.0%	9.8	7.1%	12.2%
17. TOTAL	48.0	100.0%	67.2	100.0%	45.1%	78.7	100.0%	17.2%	84.9	100.0%	12.1%	95.3	100.0%	12.2%	137.5	100.0%	44.3%
<b>CURRENT OPERATIONS ACC.</b>																	
<b>REVENUE:</b>																	
18. Income from operations	32.7	100.0%	41.9	100.0%	24.3%	40.3	100.0%	-3.7%	44.4	100.0%	19.0%	69.6	100.0%	36.7%	67.9	100.0%	11.5%
19. Subsidies	6.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%
20. Total sales	32.7	100.0%	41.9	100.0%	24.3%	40.3	100.0%	-3.7%	44.4	100.0%	19.0%	69.6	100.0%	36.7%	67.9	100.0%	11.5%
21. Other income	0.9	2.6%	1.1	2.7%	28.6%	0.7	1.6%	-36.5%	2.5	5.7%	24.0%	1.0	1.7%	-59.1%	1.5	2.2%	43.1%
<b>EXPENSES:</b>																	
22. Wages	5.0	14.9%	5.9	14.1%	17.2%	6.6	16.5%	12.6%	7.4	16.8%	12.0%	9.9	14.1%	33.7%	10.9	16.1%	10.1%
23. Material inputs	19.4	54.7%	20.4	48.7%	10.7%	22.8	56.4%	11.6%	25.1	56.6%	16.4%	32.8	55.7%	34.5%	27.3	54.9%	10.0%
24. Service inputs	0.6	1.8%	0.6	1.5%	8.2%	0.7	1.7%	4.5%	0.6	1.3%	-18.0%	0.9	1.4%	52.7%	1.0	1.5%	22.5%
25. Depreciation	0.6	1.6%	0.6	1.4%	2.9%	0.6	1.5%	5.6%	0.9	2.0%	43.4%	1.1	1.8%	23.1%	1.1	1.7%	5.6%
26. Interest	2.1	6.2%	2.2	5.3%	7.5%	2.8	6.9%	25.2%	3.5	7.9%	25.0%	4.2	7.1%	20.8%	5.5	8.0%	28.8%
27. Income tax	0.2	0.5%	1.0	2.4%	482.6%	0.0	0.0%	-100.0%	0.0	0.0%	0.0%	0.5	0.7%	0.0%	0.4	0.5%	-31.7%
28. Other expenses	7.3	21.7%	11.7	27.9%	59.3%	10.6	26.2%	-9.5%	8.3	18.8%	-21.1%	10.4	17.2%	24.9%	10.3	15.1%	-1.4%
29. Total expenses	34.2	101.4%	42.4	101.3%	24.1%	44.1	109.2%	3.8%	45.8	103.3%	4.0%	62.9	100.0%	32.5%	66.5	97.5%	9.3%
<b>SURPLUS/DEFICIT:</b>																	
30. Before tax	0.6	1.7%	1.6	3.9%	174.8%	(3.0)	-7.4%	-287.0%	1.1	2.4%	135.4%	1.4	2.2%	30.1%	3.2	4.5%	135.4%
31. After tax																	

128

PRODUCTIVITY & RATIO ANALYSIS

Company: EL TRAMCO

Million L.E.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	Year: 1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
	%	%	% Growth																	
<b>PRODUCTIVITY ANALYSIS:</b>																				
32. Production	30.3	93.0%	37.0	105.6%	22.2%	35.3	89.3%	-4.5%	39.8	87.5%	12.9%	57.3	85.0%	43.8%	66.3	107.0%	15.6%	36.0	119.0%	90.4%
33. Sales	32.5	96.5%	35.0	83.6%	7.6%	44.0	109.0%	25.5%	45.5	102.6%	3.6%	64.4	105.1%	41.4%	61.9	91.3%	-3.6%	29.4	90.4%	89.0%
34. Local	32.5	100.0%	35.0	100.0%	7.6%	44.0	100.0%	25.5%	45.5	100.0%	3.6%	64.4	100.0%	41.4%	61.5	99.3%	-4.4%	29.0	89.0%	89.0%
35. Exports	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.4	0.7%	0.0%	0.4	100.0%	100.0%
36. Value added	9.0	29.7%	14.5	39.2%	61.1%	12.4	35.1%	-14.5%	12.1	30.3%	-2.7%	18.2	31.8%	51.0%	25.7	35.7%	30.2%	14.7	163.4%	163.4%
37. Personnel	2,945		3,093		5.0%	3,228		4.4%	3,110		-3.7%	3,400		9.3%	3,400			455	15.4%	15.4%
38. Av. income/worker, L.E.	1,716.7		1,968.5		11.6%	2,058.6		7.9%	2,297.3		16.2%	2,625.6		22.3%	3,220.0			1,509.3	88.2%	88.2%
39. Productivity of L.E. wage	6.0		6.3		4.3%	5.3		-15.2%	5.4		0.7%	5.8		7.6%	6.1			0.0	0.0%	0.0%
40. Labor productivity, L.E.	10,275.7		11,954.7		16.3%	16,925.9		-8.5%	12,862.9		-17.1%	16,844.4		21.6%	19,493.5			9,221.8	59.7%	59.7%
41. Material productivity	1.64		1.81		10.4%	1.55		-14.4%	1.58		2.2%	1.70		7.0%	1.78			0.62	-22.1%	-22.1%
42. Capital productivity	0.82		0.77		-10.6%	0.72		-6.4%	0.68		-2.2%	0.68		19.1%	0.62			48.5%	128.3%	158.0%
43. Capital/Labor ratio	11,935.5		15,524.1		30.1%	15,179.7		-2.2%	18,775.0		-1.5%	0.56		-22.5%	0.73			31.7%		
44. Inventory/Output ratio	0.71		0.82		15.5%	0.73		-10.4%	0.72		-1.5%	0.56		-22.5%	0.73					
<b>RATIO ANALYSIS:</b>																				
45. Current ratio	1.55		1.36		-12.4%	1.22		-10.5%	1.40		14.7%	1.37		-1.9%	1.10			-20.0%		
46. Acid test	0.53		0.53		-0.7%	0.62		17.4%	0.64		4.0%	0.60		-6.8%	0.44			-26.3%		
47. Debt to total assets	0.67		0.64		-19.6%	0.68		6.5%	0.61		-9.2%	0.66		8.5%	0.76			13.6%		
48. Debt to equity	1.12		1.74		55.8%	1.86		7.1%	1.60		-14.4%	1.57		23.6%	2.09			56.4%		
49. Inventory turnover	1.57		1.59		-11.9%	1.56		12.6%	1.54		-1.0%	1.90		23.3%	1.40			-26.6%		
50. Av. collection period, days	168		160		48.0%	236		47.5%	196		-18.7%	139		-29.3%	158			14.1%		
51. Fixed assets turnover	2.46		2.36		-4.1%	1.74		-28.0%	1.50		-14.2%	1.57		4.9%	1.21			-23.0%		
52. Total assets turnover	0.75		0.62		-14.4%	0.53		-14.6%	0.52		-1.9%	0.64		21.8%	0.49			-22.4%		
53. Profit margin on sales	1.2%	1.7%	1.4%	3.8%	17.5%	-7.4%	-7.4%	-618.7%	2.4%	2.4%	122.2%	1.4%	2.2%	-42.1%	4.2%	4.9%	206.4%			
54. Return on money employed	1.6%	2.3%	1.9%	5.2%	19.7%	-9.2%	-9.2%	-573.4%	3.2%	3.2%	125.7%	1.6%	2.6%	-34.2%	4.5%	5.1%	192.1%			
55. Return on net worth	1.9%	2.7%	2.4%	6.5%	29.4%	-10.9%	-10.9%	-545.1%	3.2%	3.2%	129.7%	2.6%	4.3%	-19.3%	8.5%	9.6%	226.6%			
56. Du Pont ratio	0.9%	1.2%	0.9%	2.4%	0.6%	-4.0%	-4.0%	-542.8%	1.2%	1.2%	131.6%	0.9%	1.4%	-29.5%	2.1%	2.4%	137.6%			

Item Ver: First Column: 38=(22/37); 39=(32/23); 40=(32/37); 41=(32/23); 42=(32/(1+2+3)); 43=((1+2+3)/37); 44=(3/32); 45=(3+4+5+6+7)/(11+15+16); 46=(4+5+6+7)/(11+15+16); 47=(13+14+15+16)/9; 48=(13+14+15+16)/(10+11+12);  
 49=(20/3); 50=(15+16)/(20+360); 51=(20/(1+2)); 52=(20/9); 53=(31/20); 54=31/(19-8)-(14+15+16); 55=(31/(10+11+12))- 56=31/2011(20/9)  
 Second Column: 32=(32/33); 33=(33/20); 34=(34/33); 35=(35/33); 36=(36/32)

FINANCIAL ANALYSIS

Company: ERHU RETIUS

Million L.E.

	(1) Year: 1982/83	% of Asset OR Sales	(2) 1983/84	% of Asset OR Sales	(3) 1984/85	% of Asset OR Sales	(4)* 1985/86	% of Asset OR Sales	(5) 1986/87	% of Asset OR Sales	(6) 1987/88	% of Asset OR Sales	(7) 1988/89	% of Asset OR Sales	Period L.E.	Growth %						
<b>BALANCE SHEET:</b>																						
<b>ASSETS:</b>																						
1. Fixed assets	21.5	46.6%	23.2	42.7%	8.4%	30.6	48.3%	31.7%	33.0	50.8%	7.9%	32.9	49.2%	-0.6%	33.6	43.3%	2.3%	12.2	-5.0	-62.5%		
2. Projects under construction	8.3	17.4%	9.7	17.8%	20.6%	2.9	4.6%	-69.6%	1.4	2.2%	-51.1%	2.3	3.5%	63.6%	3.0	3.9%	28.4%	12.4	146.6%			
3. Inventory	8.5	18.4%	10.4	19.1%	23.0%	11.2	17.7%	8.0%	11.9	18.2%	5.4%	12.2	15.3%	3.0%	20.9	26.9%	70.9%	1.9	40.5%			
Raw materials	4.7	0.55%	5.4	0.51%	15.0%	4.6	0.41%	-13.6%	5.3	0.44%	-6.4%	2.7	0.22%	14.1%	3.5	0.16%	29.4%	1.8	105.3%			
Spare parts	1.7	0.20%	1.8	0.17%	5.2%	2.4	0.21%	32.7%	2.4	0.19%	-6.4%	0.8	0.06%	-13.0%	0.7	0.04%	17.6%	0.5	124.5%			
In-process	0.4	0.04%	0.5	0.05%	25.5%	0.5	0.04%	-15.9%	0.9	0.07%	66.6%	2.5	0.20%	-3.4%	6.1	0.29%	144.4%	4.9	414.9%			
Finished goods	1.2	0.14%	1.9	0.18%	57.5%	1.6	0.13%	-15.9%	0.7	0.05%	-68.0%	2.6	0.21%	278.1%	3.9	0.15%	43.4%	3.3	647.3%			
Other	0.5	0.06%	0.9	0.08%	72.8%	2.2	0.19%	149.4%	0.2	0.02%	0.0%	0.2	0.02%	-0.5%	0.2	0.02%	0.5%	0.0	0.0%			
4. Financial investments	0.2	0.4%	0.2	0.4%	0.0%	0.2	0.3%	0.0%	1.4	2.1%	68.0%	1.0	1.5%	-29.0%	1.6	2.1%	64.3%	1.7	2.2%	-22.8%	0.4	30.8%
5. Accounts receivable	1.0	2.2%	0.9	1.6%	-16.2%	0.8	1.3%	-3.6%	1.7	2.6%	13.6%	2.2	3.3%	29.9%	3.7	4.9%	54.1%	0.4	129.7%			
6. Misc. accounts receivable	1.3	2.8%	0.7	1.4%	-45.4%	1.5	2.4%	108.0%	0.9	1.3%	-20.8%	1.6	2.4%	88.9%	15.9	20.4%	10.1%	10.5	192.5%			
7. Cash on hand & in banks	0.5	0.7%	1.1	2.1%	255.0%	2.2	3.4%	91.1%	14.6	22.4%	4.3%	14.4	21.6%	-1.1%	20.4%	100.0%	16.1%	31.5	68.2%			
8. Transferred loss	5.3	11.5%	8.1	15.0%	53.4%	14.0	22.0%	71.3%	65.0	100.0%	2.4%	65.8	100.0%	2.7%	77.5	100.0%	16.1%	31.5	68.2%			
9. TOTAL	46.1	100.0%	54.4	100.0%	18.0%	63.5	100.0%	16.7%	65.0	100.0%	2.4%	65.8	100.0%	2.7%	77.5	100.0%	16.1%	31.5	68.2%			
<b>LIABILITIES:</b>																						
10. Capital	18.0	39.0%	19.7	36.2%	9.5%	20.9	32.9%	6.1%	33.6	51.7%	61.0%	32.6	50.3%	0.0%	33.6	43.3%	0.0%	15.6	87.0%			
11. Reserves	2.1	4.6%	2.2	4.0%	4.8%	2.3	3.6%	4.3%	2.5	3.8%	6.7%	2.5	3.7%	0.7%	2.7	3.5%	8.7%	0.6	27.6%			
12. Provisions	4.2	9.0%	5.8	10.4%	29.3%	9.0	14.1%	55.0%	12.1	18.6%	24.5%	14.5	21.7%	20.0%	16.0	20.7%	10.8%	11.9	286.1%			
13. Long-term loans	4.7	10.2%	4.4	8.0%	-7.1%	4.4	6.9%	0.0%	4.9	7.3%	9.1%	4.7	7.0%	-2.3%	6.7	8.6%	43.3%	2.0	41.8%			
14. Credit banks	10.4	22.6%	15.8	29.1%	51.8%	19.3	30.4%	22.0%	4.4	6.7%	-77.4%	4.9	7.4%	12.5%	12.1	15.6%	145.7%	1.6	15.7%			
15. Accounts payable	1.1	2.3%	0.9	1.7%	-11.3%	1.4	2.3%	53.3%	1.4	2.2%	1.0%	1.6	2.4%	10.9%	2.3	2.9%	41.6%	1.2	115.8%			
16. Misc. accounts payable	5.4	11.7%	5.5	10.3%	4.0%	6.2	9.8%	11.4%	6.3	9.7%	1.3%	5.1	7.6%	-19.7%	4.2	5.4%	-16.5%	-1.1	-21.3%			
17. TOTAL	45.8	99.3%	54.4	100.0%	18.3%	63.5	100.0%	16.7%	65.0	100.0%	2.4%	66.8	100.0%	2.7%	77.6	100.0%	16.1%	31.9	69.4%			
<b>CURRENT OPERATIONS ACC.:</b>																						
<b>REVENUES:</b>																						
18. Income from operations	16.9	100.0%	19.1	100.0%	13.0%	18.7	100.0%	-2.1%	22.7	100.0%	21.5%	23.8	100.0%	4.6%	28.5	100.0%	20.1%	11.6	69.0%			
19. Subsidies	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%			
20. Total sales	16.9	100.0%	19.1	100.0%	13.0%	18.7	100.0%	-2.1%	22.7	100.0%	21.5%	23.8	100.0%	4.6%	28.5	100.0%	20.1%	11.6	69.0%			
21. Other income	0.5	2.9%	0.1	0.5%	-82.5%	0.2	1.0%	120.7%	1.4	6.2%	655.9%	0.9	3.9%	-34.2%	1.3	4.6%	42.0%	0.8	168.3%			
<b>EXPENSES:</b>																						
22. Wages	5.5	32.3%	6.2	32.3%	12.9%	6.8	36.5%	10.6%	7.0	30.6%	1.7%	8.4	35.3%	20.6%	9.8	34.2%	16.4%	4.3	78.9%			
23. Material inputs	9.3	55.1%	9.3	48.7%	0.0%	9.3	49.8%	0.0%	10.1	44.6%	3.3%	10.0	42.0%	-0.6%	14.1	49.5%	40.6%	4.8	51.2%			
24. Service inputs	0.3	1.5%	0.4	1.9%	40.0%	0.4	2.0%	0.6%	0.3	1.4%	-15.1%	0.3	1.4%	10.3%	0.4	1.5%	23.1%	0.2	62.5%			
25. Depreciation	0.9	5.3%	1.7	9.0%	31.8%	3.0	16.3%	76.1%	3.3	14.5%	3.1%	2.8	11.6%	-15.9%	2.6	9.0%	-9.7%	1.7	185.9%			
26. Interest	1.4	8.3%	2.2	11.5%	59.3%	2.8	14.5%	25.0%	2.1	9.4%	-22.8%	0.9	3.6%	-59.5%	1.6	5.6%	85.4%	0.2	14.9%			
27. Income tax	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	-50.0%	0.0	0.0%	-100.0%	0.0				
28. Other expenses	2.3	13.7%	2.3	11.9%	-1.8%	2.4	12.6%	5.8%	1.9	8.5%	-19.5%	2.1	8.7%	7.1%	2.9	10.0%	38.4%	0.5	23.7%			
29. Total expenses	19.6	116.2%	22.0	115.4%	12.3%	24.7	132.1%	12.1%	24.7	109.9%	0.2%	24.5	103.2%	-0.8%	31.3	109.7%	27.6%	11.7	59.6%			
30. Before tax	(2.2)	-13.2%	(2.8)	-14.9%	-27.4%	(5.8)	-31.1%	-103.9%	(0.6)	-2.7%	89.5%	0.2	0.7%	125.9%	(1.5)	-5.1%	-1031.4%	-12.8	-2.1			
31. After tax	(2.2)	-13.2%	(2.8)	-14.9%	-27.4%	(5.8)	-31.1%	-103.9%	(0.6)	-2.7%	89.5%	0.2	0.7%	125.9%	(1.5)	-5.1%	-1037.4%	-12.8	-2.1			

PRODUCTIVITY & RATIO ANALYSIS

Company: CAIRO METALS

Million L.E.

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)			
	1982/83		1983/84		1984/85		1985/86		1986/87		1987/88		1988/89		1989/90			
	%	% Growth	%	% Growth														
<b>PRODUCTIVITY ANALYSIS:</b>																		
32. Production	15.7	102.1%	17.1	102.6%	18.4	8.7%	18.7	98.3%	22.4	106.5%	25.2	95.5%	3.8%	25.1	116.5%	8.2%	7.4	59.9%
33. Sales	15.4	91.1%	16.7	87.3%	18.7	8.2%	18.7	95.9%	21.0	92.5%	23.6	95.2%	12.2%	21.6	75.6%	-8.4%	6.2	40.2%
34. Local	15.4	100.0%	16.7	100.0%	18.7	8.2%	18.7	100.0%	21.0	100.0%	23.6	100.0%	12.2%	21.6	100.0%	-8.4%	6.2	40.2%
35. Exports	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0
36. Value added	6.0	38.2%	7.7	44.9%	12.2	28.0%	12.2	66.4%	11.0	49.3%	11.6	45.8%	4.7%	11.7	46.7%	1.5%	5.7	95.4%
37. Personnel	2,672		3,062		3,092	6.6%	3,092	1.0%	3,131	1.3%	3,672	-1.9%	3,625				213	7.4%
38. Av. income/worker, L.E.	1,899.4		2,010.8		2,206.3	5.9%	2,206.3	9.7%	2,220.1	0.6%	2,729.2	22.9%	3,162.7				1263.3	66.5%
39. Productivity of L.E. wage	2.9		2.3	-5.7%	2.7	3.2%	2.7	-3.1%	3.2	19.3%	2.8	-14.0%	2.6				-0.3	-10.6%
40. Labor productivity, L.E.	5,472.8		5,582.5		5,926.0	2.6%	5,926.0	6.3%	7,146.3	21.4%	7,558.6	5.8%	8,146.2				2672.4	42.8%
41. Material productivity	1.69		1.84	8.7%	1.97	7.4%	1.97	2.2%	2.21	12.1%	2.31	4.5%	1.73				-23.0%	
42. Capital productivity	0.41		0.39	-4.8%	0.41	3.8%	0.48	17.8%	0.49	17.8%	0.49	1.4%	0.44				-10.7%	
43. Capital/Labor ratio	13,202.3		14,142.7	7.1%	14,483.8	2.4%	14,796.2	2.2%	14,796.2	0.0%	15,431.0	4.3%	18,629.8				5427.5	41.1%
44. Inventory/Output ratio	0.51		0.61	13.1%	0.61	0.0%	0.53	-15.5%	0.53	-15.5%	0.53	-0.7%	0.63				57.9%	
<b>RATIO ANALYSIS:</b>																		
45. Current ratio	0.57		0.50	-11.1%	0.59	-0.8%	0.59	-0.8%	1.22	122.6%	1.49	12.6%	1.35				-8.9%	
46. Acid test	0.17		0.15	-22.5%	0.18	33.8%	0.18	33.8%	0.34	97.8%	0.43	26.4%	0.25				-46.9%	
47. Debt to total assets	0.47		0.49	5.0%	0.49	0.5%	0.49	0.5%	0.26	-47.4%	0.24	-8.4%	0.33				33.9%	
48. Debt to equity	0.69		0.97	8.5%	0.97	0.9%	0.97	0.9%	0.35	-64.0%	0.32	-8.4%	0.43				50.2%	
49. Inventory turnover	2.60		1.83	-8.1%	1.66	-9.3%	1.66	-9.3%	1.92	15.2%	1.94	1.5%	1.37				-29.7%	
50. Av. collection period, days	50		30	-39.4%	45	51.2%	45	51.2%	49	7.0%	49	-1.0%	42				-13.5%	
51. Fixed assets turnover	0.57		0.59	1.2%	0.56	-4.0%	0.56	-4.0%	0.66	18.2%	0.67	2.5%	0.78				15.5%	
52. Total assets turnover	0.37		0.35	-4.2%	0.29	-16.1%	0.29	-16.1%	0.35	16.6%	0.36	1.9%	0.37				3.4%	
53. Profit margin on sales	af. tax	bf. tax	af. tax	bf. tax	af. tax	bf. tax												
54. Return on money employed	-13.2%	-13.2%	-14.9%	-14.9%	-12.7%	-31.1%	-31.1%	-108.3%	-2.7%	-2.7%	91.4%	0.7%	0.7%	124.5%	-5.1%	-5.1%	-880.2%	
55. Return on net worth	-9.2%	-9.2%	-9.2%	-9.2%	-11.9%	-27.5%	-27.5%	-116.0%	-1.6%	-1.6%	95.9%	6.4%	6.4%	124.1%	-3.4%	-3.4%	-956.5%	
56. Du Pont ratio	-4.9%	-4.9%	-5.2%	-5.2%	-7.9%	-9.1%	-9.1%	-74.7%	-0.9%	-0.9%	89.6%	0.2%	0.2%	124.5%	-1.9%	-1.9%	-907.1%	

Item Key:

First Column: 33=(22/37); 39=(32/22); 49=(32/37); 41=(32/35); 42=(32/(1+2+3)); 43=((1+2+3)/37); 44=(3/32); 45=(3+4+5+6+7)/(1+4+15+16); 46=(4+5+6+7)/(1+4+15+16); 47=(13+14+15+16)/9; 48=(13+14+15+16)/(10+11+12); 49=(20/3); 50=(5+6)/(20/360); 51=(20/(1+2)); 52=(20/9); 53=(31/20); 54=31/(9-8)-(1+4+15+16); 55=(3/(10+11+12)); 56=(31/20)/(20/9)  
 Second Column: 32=(32/33); 33=(33/20); 34=(34/33); 35=(35/33); 36=(36/32)

131

FINANCIAL ANALYSIS

Company: NASR TV

Million L.E.

	(1)	% of Asset	(2)	% of Asset	% Growth	(3)	% of Asset	% Growth	(4)	% of Asset	% Growth	(5)	% of Asset	% Growth	(6)	% of Asset	% Growth	Period	Growth
Year:	1982/83	DR Sales	1983/84	DR Sales		1984/85	DR Sales		1985/86	DR Sales		1986/87	DR Sales		1987/88	DR Sales		L.E.	%
<b>BALANCE SHEET:</b>																			
<b>ASSETS:</b>																			
1. Fixed assets	8.9	15.5%	9.6	12.4%	7.3%	11.0	9.6%	14.8%	17.4	14.2%	55.3%	32.8	17.7%	88.2%	35.7	20.6%	8.8%	26.8	299.3%
2. Projects under construction	1.3	2.2%	1.8	2.3%	41.5%	4.6	4.0%	154.4%	10.0	8.1%	115.4%	4.9	2.7%	-50.6%	1.5	0.9%	-69.8%	0.2	17.0%
3. Inventory	22.9	39.7%	31.2	40.5%	36.1%	40.3	35.3%	29.2%	36.1	29.4%	-14.5%	52.8	29.6%	49.0%	62.2	35.9%	15.7%	39.3	171.1%
Raw materials	9.9	0.43%	15.4	0.49%	55.5%	19.1	0.47%	24.0%	14.2	0.29%	-25.6%	10.0	0.15%	-29.9%	9.9	0.15%	-1.0%	0.0	-6.5%
Spare parts	0.2	0.00%	0.2	0.00%	-20.0%	0.4	0.01%	125.6%	0.4	0.01%	11.6%	0.4	0.00%	4.0%	0.4	0.00%	0.0%	0.2	107.4%
In-process	4.2	0.18%	4.8	0.15%	14.3%	4.6	0.11%	-3.7%	9.0	0.24%	54.9%	5.9	0.11%	-34.0%	11.7	0.15%	98.2%	7.6	150.4%
Finished goods	4.7	0.20%	3.9	0.12%	-16.4%	8.2	0.20%	110.2%	5.1	0.14%	-25.0%	1.8	0.03%	-64.9%	19.3	0.29%	928.0%	13.6	293.1%
Other	4.0	0.17%	7.0	0.22%	75.4%	6.1	0.20%	15.6%	7.4	0.20%	-5.9%	15.7	0.66%	380.4%	21.9	0.35%	-38.7%	17.9	449.1%
4. Financial investments	0.4	0.6%	0.8	1.1%	119.3%	1.0	0.9%	21.5%	1.4	1.2%	45.2%	1.4	0.8%	0.0%	1.4	0.8%	0.0%	1.1	26.9%
5. Accounts receivable	6.1	10.5%	17.0	22.0%	180.3%	27.0	23.6%	59.2%	23.5	19.1%	-10.0%	9.3	5.0%	-60.4%	12.4	7.2%	33.0%	6.3	104.5%
6. Misc. accounts receivable	1.6	2.7%	2.3	3.0%	46.0%	5.5	4.8%	140.5%	6.9	5.7%	25.7%	14.5	15.5%	393.9%	40.7	25.5%	18.5%	35.1	2494.4%
7. Cash on hand & in banks	16.7	28.5%	14.4	18.7%	-12.4%	24.9	21.6%	72.5%	27.3	22.2%	9.5%	29.6	21.2%	44.9%	19.4	6.0%	-72.6%	-6.3	-27.0%
8. Transferred loss	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.4	5.1%	0.0%	8.6	5.1%	-6.9%	8.8	
9. TOTAL	57.8	100.0%	77.1	100.0%	33.4%	114.3	100.0%	43.2%	122.7	100.0%	7.2%	155.5	100.0%	51.2%	173.0	100.0%	-6.7%	115.2	199.3%
<b>LIABILITIES:</b>																			
10. Capital	5.9	10.2%	5.9	7.7%	0.0%	5.9	5.2%	0.0%	5.9	4.8%	6.0%	6.3	3.4%	5.6%	6.3	3.6%	0.0%	0.3	5.8%
11. Reserves	2.6	4.5%	3.5	4.6%	36.9%	4.4	3.9%	26.0%	4.5	3.7%	1.9%	5.5	3.0%	22.0%	5.7	3.3%	2.5%	3.1	119.9%
12. Provisions	15.5	26.8%	20.2	26.2%	30.2%	25.5	22.3%	26.5%	22.4	18.3%	-10.2%	26.1	14.1%	16.1%	29.2	16.9%	11.6%	13.7	88.5%
13. Long-term loans	3.8	6.5%	4.2	5.5%	12.7%	4.5	3.9%	5.2%	6.0	4.9%	24.8%	12.9	7.0%	115.3%	10.5	6.1%	-18.7%	6.7	178.9%
14. Credit banks	0.6	1.1%	3.0	3.9%	394.8%	27.2	23.8%	798.2%	62.2	50.7%	128.2%	112.9	69.9%	81.7%	1.0	0.1%	63.7%	-2.5%	109.5
15. Accounts payable	22.6	39.0%	32.0	41.5%	41.7%	31.8	27.9%	-9.4%	10.6	8.7%	-68.6%	0.5	1.9%	-68.8%	2.3	1.3%	-36.1%	-20.3	-90.0%
16. Misc. accounts payable	6.9	11.9%	8.3	10.7%	19.9%	14.9	13.0%	79.9%	11.1	9.0%	-25.7%	18.5	9.8%	65.1%	0.0	5.2%	-50.6%	2.1	20.6%
17. TOTAL	57.8	100.0%	77.1	100.0%	33.4%	114.3	100.0%	43.2%	122.7	100.0%	7.2%	155.5	100.0%	51.2%	173.0	100.0%	-6.7%	115.2	199.3%
<b>CURRENT OPERATIONS ACC:</b>																			
<b>REVENUE:</b>																			
18. Income from operations	65.9	100.0%	85.1	100.0%	29.2%	113.0	100.0%	32.8%	73.8	100.0%	-74.7%	58.0	100.0%	-21.5%	110.3	100.0%	90.2%	44.4	67.4%
19. Subsidies	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%
20. Total sale	65.9	100.0%	85.1	100.0%	29.2%	113.0	100.0%	32.8%	73.8	100.0%	-74.7%	58.0	100.0%	-21.5%	110.3	100.0%	90.2%	44.4	67.4%
21. Other income	0.6	1.0%	2.1	2.4%	224.9%	3.7	3.3%	60.3%	3.6	4.9%	-2.7%	1.8	3.1%	-49.5%	1.4	1.3%	-21.7%	0.8	125.2%
<b>EXPENSES:</b>																			
22. Wages	7.4	11.2%	9.0	10.6%	22.0%	11.2	9.9%	24.0%	8.2	11.2%	-28.2%	7.5	12.9%	-9.6%	10.9	9.9%	45.8%	3.5	47.3%
23. Material inputs	44.6	67.7%	55.3	65.0%	23.9%	77.9	69.9%	40.9%	54.2	73.5%	-31.5%	27.9	65.4%	-30.1%	65.0%	57.2%	66.4%	18.4	41.3%
24. Service inputs	0.4	0.6%	1.2	1.4%	176.3%	1.9	1.7%	69.0%	1.9	2.5%	-9.7%	1.6	2.7%	-15.7%	1.5	1.4%	-3.5%	1.1	255.9%
25. Depreciation	0.8	1.2%	0.6	0.7%	-23.9%	0.7	0.6%	15.4%	1.0	1.4%	50.4%	3.1	5.4%	202.3%	3.1	2.8%	-2.5%	2.3	295.3%
26. Interest	1.6	2.5%	2.4	2.9%	43.7%	5.3	4.7%	123.1%	8.3	11.2%	55.9%	10.5	18.1%	26.3%	15.7	14.2%	50.0%	14.1	852.9%
27. Income tax	2.3	3.4%	3.6	4.3%	60.4%	3.0	2.7%	-17.2%	0.0	0.0%	-55.5%	0.0	0.0%	-100.0%	0.0	0.0%	0.0%	-2.2	-99.9%
28. Other expenses	5.7	8.7%	9.2	10.9%	60.8%	13.4	12.0%	47.1%	3.7	5.0%	-27.6%	8.7	14.9%	134.1%	16.8	15.2%	94.1%	11.0	192.2%
29. Total expenses	62.9	95.4%	81.3	95.5%	25.3%	113.1	100.5%	39.6%	77.4	104.9%	-31.8%	59.2	115.4%	-10.5%	111.0	100.7%	60.5%	48.2	76.7%
<b>SURPLUS/DEFICIT:</b>																			
30. Before tax	5.9	9.0%	9.5	11.1%	60.8%	6.2	5.5%	-34.8%	0.0	0.0%	-95.7%	(9.4)	-16.2%		0.7	0.6%	107.1%	12.8	2.1
31. After tax	3.6	5.5%	5.8	6.9%	60.8%	3.2	2.8%	-45.7%	0.0	0.0%	-100.0%	(9.4)	-16.2%		0.6	0.6%	106.9%	3.9	0.6

FINANCIAL ANALYSIS

Company: PHILIPS

Million L.E.

	(1)	% of Asset	(2)	% of Asset	% Growth	(3)	% of Asset	% Growth	(4)	% of Asset	% Growth	(5)	% of Asset	% Growth	(6)	% of Asset	% Growth	Period	Growth
	Year: 1982/83	OR Sales	1983/84	OR Sales	!	1984/85	OR Sales	!	1985/86	OR Sales	!	1986/87	OR Sales	!	1987/88	OR Sales	!	L.E.	!
<b>BALANCE SHEET:</b>																			
<b>ASSETS:</b>																			
1. Fixed assets	18.6	21.9%	23.8	23.3%	27.8%	28.8	24.8%	21.1%	32.9	33.0%	14.3%	33.7	32.3%	2.4%	39.3	29.6%	16.8%	20.7	111.5%
2. Projects under construction	1.8	2.1%	0.8	0.8%	-54.3%	0.9	0.8%	8.3%	0.2	0.2%	-76.6%	1.4	1.3%	579.4%	2.9	2.2%	111.4%	1.2	66.1%
3. Inventory	46.2	54.3%	40.8	40.0%	-11.7%	47.1	40.6%	15.5%	35.4	35.5%	-24.9%	45.4	43.5%	28.2%	62.4	47.1%	37.8%	16.4	35.5%
Raw materials	15.2	0.329%	14.3	0.351%	-5.9%	14.3	0.304%	0.2%	10.9	0.308%	-23.5%	18.9	0.416%	72.4%	31.5	0.504%	66.9%	16.3	107.5%
Spare parts	3.2	0.069%	3.5	0.080%	2.0%	2.8	0.059%	-14.0%	3.0	0.085%	7.3%	4.2	0.095%	41.1%	5.2	0.083%	22.9%	2.0	63.3%
In-process	1.0	0.021%	0.8	0.020%	-15.5%	1.1	0.023%	32.6%	0.9	0.025%	-17.3%	0.6	0.014%	-31.3%	0.8	0.012%	22.2%	-0.2	-22.1%
Finished goods	15.0	0.324%	12.7	0.312%	-15.1%	16.4	0.348%	29.2%	6.4	0.181%	-60.9%	3.9	0.085%	-39.6%	8.0	0.127%	104.8%	-7.0	-46.9%
Other	11.9	0.257%	9.7	0.238%	-18.2%	12.5	0.265%	28.7%	14.2	0.401%	10.5%	17.8	0.392%	25.5%	17.2	0.274%	-3.5%	5.3	44.5%
4. Financial investments	0.6	0.7%	0.6	0.6%	0.0%	0.6	0.5%	0.0%	0.7	0.7%	24.5%	0.8	0.8%	12.7%	0.9	0.7%	11.8%	0.3	56.8%
5. Accounts receivable	6.7	7.9%	25.8	25.3%	285.2%	29.1	25.1%	12.8%	21.0	21.0%	-27.9%	16.9	16.5%	-47.8%	19.0	14.3%	73.2%	12.3	183.0%
6. Misc. accounts receivable	6.7	7.9%	7.7	7.6%	15.2%	9.7	7.5%	13.2%	9.2	9.2%	5.6%	12.1	11.6%	31.4%	4.0	3.0%	-67.2%	-2.7	-40.5%
7. Cash on hand & in banks	4.5	5.2%	2.4	2.4%	-46.2%	1.0	0.9%	-58.8%	0.4	0.4%	-64.4%	5.0	0.0%	-91.0%	0.8	0.6%	2387.5%	-3.7	-82.4%
8. Transferred loss	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	3.4	2.6%	0.0%	3.4	
9. TOTAL	85.1	100.0%	101.9	100.0%	19.8%	116.2	100.0%	14.0%	99.8	100.0%	-14.1%	104.4	100.0%	4.6%	132.9	100.0%	27.3%	47.9	56.3%
<b>LIABILITIES:</b>																			
10. Capital	6.5	7.6%	6.5	6.4%	0.0%	6.5	5.6%	0.0%	6.5	6.5%	0.0%	6.5	6.2%	0.6%	6.5	4.9%	0.0%	0.0	0.0%
11. Reserves	3.8	4.5%	4.1	4.1%	8.1%	4.6	3.9%	10.5%	5.2	5.2%	13.1%	5.9	5.6%	14.2%	6.5	4.9%	9.5%	2.6	69.0%
12. Provisions	20.3	23.9%	24.5	24.1%	20.8%	31.9	27.5%	30.0%	32.8	32.8%	2.7%	39.2	29.0%	-7.7%	29.2	22.0%	-3.4%	8.9	43.9%
13. Long-term loans	2.4	2.9%	3.5	3.4%	43.0%	3.3	2.9%	-5.3%	-3.8	3.8%	15.2%	2.6	2.5%	-32.6%	1.1	0.9%	-55.7%	-1.3	-53.4%
14. Credit banks	33.2	39.1%	46.7	45.8%	40.4%	46.3	39.8%	-9.9%	32.5	32.6%	-29.8%	36.8	35.2%	13.3%	67.7	51.0%	84.1%	34.5	103.8%
15. Accounts payable	6.8	7.9%	7.4	7.3%	10.1%	9.7	8.3%	30.2%	8.1	8.1%	-16.5%	8.4	8.0%	3.4%	6.9	5.2%	-17.5%	0.1	2.1%
16. Misc. accounts payable	12.0	14.1%	5.1	8.9%	-24.1%	14.0	12.0%	53.3%	11.0	11.0%	-21.3%	14.0	13.5%	28.0%	15.0	11.3%	6.6%	3.0	25.1%
17. TOTAL	85.1	100.0%	101.9	100.0%	19.8%	116.2	100.0%	14.0%	99.8	100.0%	-14.1%	104.4	100.0%	4.6%	132.9	100.0%	27.3%	47.9	56.3%
<b>CURRENT OPERATIONS ACC.:</b>																			
<b>REVENUE:</b>																			
18. Income from operations	62.0	100.0%	67.8	100.0%	9.5%	81.3	100.0%	19.9%	71.8	100.0%	-11.7%	69.0	100.0%	-16.4%	81.3	100.0%	35.5%	19.3	31.2%
19. Subsidiaries	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%
20. Total sales	62.0	100.0%	67.8	100.0%	9.5%	81.3	100.0%	19.9%	71.8	100.0%	-11.7%	69.0	100.0%	-16.4%	81.3	100.0%	35.5%	19.3	31.2%
21. Other income	1.2	2.0%	0.6	1.0%	-47.7%	3.7	4.5%	470.9%	3.6	5.1%	-1.4%	4.6	7.6%	5.0%	6.1	7.5%	33.8%	4.9	392.1%
<b>EXPENSES:</b>																			
22. Wages	5.5	8.9%	6.0	8.8%	7.9%	7.3	9.0%	22.4%	6.8	9.5%	-6.9%	7.3	12.1%	7.1%	9.0	11.1%	23.8%	3.5	62.9%
23. Material inputs	41.8	67.4%	11.6	61.3%	-0.4%	47.8	58.8%	15.0%	43.9	61.2%	-8.1%	37.5	62.7%	-14.4%	51.5	65.1%	36.3%	9.5	22.8%
24. Service inputs	2.2	3.6%	2.6	3.9%	18.4%	2.9	3.5%	9.0%	2.7	3.8%	-4.8%	2.7	4.4%	-5.0%	3.6	4.4%	34.8%	1.4	60.7%
25. Depreciation	2.3	3.5%	2.8	4.1%	19.5%	3.2	3.9%	15.1%	3.4	4.7%	4.8%	3.4	5.6%	-0.1%	4.7	5.7%	38.6%	2.3	99.7%
26. Interest	2.8	4.6%	5.4	7.4%	77.8%	6.1	7.5%	21.3%	5.7	7.9%	-6.6%	4.8	8.0%	-16.2%	7.0	8.6%	46.5%	4.2	147.1%
27. Income tax	1.6	2.5%	0.9	1.4%	-40.7%	3.0	3.7%	224.1%	1.0	1.4%	-67.6%	0.0	0.0%	-100.0%	0.0	0.0%	0.0%	-1.6	-100.0%
28. Other expenses	5.5	8.9%	8.0	11.7%	44.0%	12.8	15.8%	60.8%	10.0	14.0%	-21.6%	5.9	14.9%	-11.6%	15.3	18.9%	72.2%	9.8	176.5%
29. Total expenses	61.3	99.7%	66.9	98.7%	8.3%	83.1	102.3%	74.2%	73.5	102.4%	-11.5%	64.6	107.6%	-12.2%	90.8	111.7%	40.7%	29.0	47.0%
<b>SURPLUS/DEFICIT:</b>																			
30. Before tax	3.0	4.8%	2.5	3.7%	-16.9%	4.9	6.0%	95.8%	2.9	4.0%	-40.5%	0.0	0.0%	-100.0%	(3.4)	-4.2%		9.9	1.6
31. After tax	1.4	2.3%	1.6	2.3%	9.3%	1.9	2.3%	19.1%	1.9	2.7%	3.4%	0.0	-0.0%	-100.0%	(3.4)	-4.2%		3.4	0.6

1/33

PRODUCTIVITY & RATIO ANALYSIS

Company: PHILIPS

Million L.E.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88														
			% Growth																	
<b>PRODUCTIVITY ANALYSIS:</b>																				
32. Production	64.6	126.22	65.9	94.52	2.02	75.4	97.72	14.42	57.6	73.62	-25.62	59.1	87.42	0.92	80.2	104.22	38.02	15.6	24.12	
33. Sales	51.2	82.62	69.7	102.82	36.22	77.2	95.02	10.72	72.3	103.02	1.42	66.5	110.82	-15.12	76.9	94.62	15.72	25.7	50.22	
34. Local	39.4	77.12	66.4	95.22	68.42	75.2	97.32	13.12	77.5	99.02	3.12	60.6	91.22	-21.72	76.7	95.82	26.52	37.3	94.52	
35. Exports	11.7	22.92	3.2	4.82	-71.72	2.0	2.72	-35.22	0.9	1.02	-65.22	5.9	8.82	615.02	0.2	0.22	-97.22	-11.6	-98.62	
36. Value added	21.7	33.72	19.6	28.12	-14.72	24.9	32.12	34.42	17.3	39.12	-20.62	12.8	22.12	-26.02	14.4	19.02	12.42	-7.3	-32.62	
37. Personnel	3,197		3,295		6.22	3,595		5.92	3,697		0.22	3,525		-2.02	3,623					
38. Av. income/worker, L.E.	1,727.6		1,755.5		1.62	2,029.7		15.62	1,821.9		-11.22	2,058.0		9.22	2,477.0		20.52	749.5	42.42	
39. Productivity of L.E. wage	11.7		11.1		-5.42	10.3		-6.52	8.5		-15.02	8.0		-5.22	8.9		11.52	-2.8	-25.92	
40. Labor productivity, L.E.	20,206.8		19,416.2		-3.92	20,922.5		8.12	15,989.9		-22.92	16,425.6		2.92	22,069.0		34.32	1861.2	9.22	
41. Material productivity	1.55		1.59		2.42	1.58		-0.52	1.31		-13.92	1.54		17.82	1.56		1.22			
42. Capital productivity	0.97		1.01		3.92	0.98		-2.62	0.84		-14.42	0.72		-14.22	0.76		5.92			
43. Capital/Labor ratio	20,819.3		19,248.6		-7.52	21,349.3		10.92	18,925.4		-11.12	22,769.4		19.92	28,862.6		26.82	8044.4	33.62	
44. Inventory/Output ratio	0.72		0.62		-13.52	0.62		0.92	0.61		-1.62	0.78		27.22	0.78		-0.12			
<b>RATIO ANALYSIS:</b>																				
45. Current ratio	1.24		1.22		-1.72	1.24		1.22	1.29		4.52	1.17		-9.52	0.97		-16.92			
46. Acid test	0.25		0.59		62.42	0.56		-2.42	0.61		7.62	0.40		-32.52	0.28		-31.92			
47. Debt to total assets	0.64		0.65		2.32	0.63		-3.82	0.55		-12.92	0.59		6.62	0.58		15.42			
48. Debt to equity	1.78		1.90		6.62	1.70		-10.22	1.25		-26.92	1.45		16.32	2.15		49.62			
49. Inventory turnover	1.34		1.66		24.02	1.73		3.82	2.03		17.62	1.32		-34.92	1.30		-1.72			
50. Av. collection period, days	78		178		128.72	169		-5.82	151		-9.62	139		-8.62	102		-26.62			
51. Fixed assets turnover	3.04		2.76		-9.32	2.74		-0.72	2.17		-20.72	1.71		-21.22	1.92		12.42			
52. Total assets turnover	0.73		0.67		-8.62	0.70		5.12	0.72		2.82	0.57		-20.12	0.61		6.42			
53. Profit margin on sales	2.32	4.82	2.32	3.72	-0.12	2.32	6.02	-0.62	2.72	4.02	17.12	0.02	0.02	-100.02	-4.22	-4.22				
54. Return on money employed	4.22	9.12	4.02	6.52	-6.52	4.02	10.62	-0.52	4.02	6.02	-6.82	0.02	0.02	-100.02	-8.62	-8.62				
55. Return on net worth	4.72	9.82	4.42	7.12	-4.62	4.32	11.42	-2.52	4.32	5.52	0.02	0.02	0.02	-100.02	-8.12	-8.12				
56. Du Pont ratio	1.72	3.52	1.52	2.42	-8.72	1.62	4.22	4.42	1.92	2.92	29.42	0.02	0.02	-100.02	-2.62	-2.62				

Item Key:

First Column: 38=(22/37); 39=(32/22); 40=(32/37); 41=(32/22); 42=(32/(1+2+3)); 43=((1+2+3)/37); 44=(3/32); 45=(3+4+5+6+7)/(14+15+16); 46=(4+5+6+7)/(14+15+16); 47=(13+14+15+16)/9; 48=(12+14+15+16)/(10+11+12);  
 49=(20/3); 50=(5+6)/(20/360); 51=(20/(1+2)); 52=(20/9); 53=(31/20); 54=31/(19-6)-(14+15+16); 55=(31/(10+11+12)); 56=(31/20)\*(20/9)  
 Second Column: 32=(32/33); 33=(33/20); 34=(34/35); 35=(35/35); 36=(36/32)

FINANCIAL ANALYSIS

Company: ALEXANDRIA METALS

Million L.E.

	(1)	% of Asset	(2)	% of Asset	% Growth	(3)	% of Asset	% Growth	(4)	% of Asset	% Growth	(5)	% of Asset	% Growth	(6)	% of Asset	% Growth	Period	Growth
	Year:	1982/83	GR Sales	1983/84	DR Sales	1984/85	CR Sales	1985/86	DR Sales	1986/87	DR Sales	1987/88	DR Sales	1987/88	DR Sales	L.E.	%		%
<b>BALANCE SHEETS:</b>																			
<b>ASSETS:</b>																			
1. Fixed assets	12.9	49.0%	13.6	43.8%	5.4%	14.7	39.3%	8.6%	15.0	34.7%	1.6%	16.1	27.8%	7.2%	15.9	24.9%	-1.0%	3.0	23.4%
2. Projects under construction	0.5	1.9%	0.6	2.0%	23.8%	0.4	1.0%	-41.0%	1.1	2.5%	157.5%	0.4	0.7%	-65.7%	0.6	0.9%	46.5%	0.1	14.5%
3. Inventory	4.1	15.6%	4.6	14.9%	12.8%	7.8	20.2%	69.0%	7.5	17.4%	-2.0%	16.4	18.0%	38.1%	15.6	24.4%	49.7%	11.5	279.8%
Raw materials	2.2	0.527%	2.2	0.494	3.52%	3.3	0.424	47.3%	3.3	0.433	-1.0%	3.4	0.355	3.7%	5.9	0.375	74.4%	3.7	172.7%
Spare parts	0.6	0.136%	0.7	0.155	29.1%	0.8	0.101	9.3%	0.7	0.095	-8.7%	0.8	0.075	9.1%	0.9	0.054	11.4%	0.3	55.6%
In-process	0.3	0.079%	0.5	0.104	47.5%	0.7	0.090	45.5%	0.8	0.108	16.1%	1.2	0.120	53.3%	0.8	0.054	-32.3%	0.5	158.9%
Finished goods	0.4	0.093%	0.7	0.142	71.4%	2.8	0.354	318.8%	2.0	0.270	-25.2%	2.3	0.225	14.0%	5.9	0.379	154.7%	5.5	1438.3%
Other	0.7	0.164%	0.5	0.115	-21.0%	0.2	0.021	-55.3%	0.7	0.094	189.2%	2.7	0.253	277.0%	2.1	0.132	-22.8%	1.4	207.0%
4. Financial investments	1.2	4.7%	1.2	3.9%	-0.1%	1.2	3.2%	0.1%	1.5	3.5%	22.9%	1.5	2.6%	0.0%	2.1	3.2%	37.2%	0.8	69.6%
5. Accounts receivable	1.5	5.7%	3.9	12.5%	157.6%	4.7	12.2%	20.6%	4.1	9.6%	-11.7%	5.4	9.2%	25.6%	11.0	17.0%	104.6%	9.5	628.1%
6. Misc. accounts receivable	0.8	3.2%	1.2	3.3%	41.0%	1.7	4.4%	41.6%	2.2	5.1%	22.2%	3.2	5.4%	45.5%	2.6	4.1%	-18.1%	1.8	214.5%
7. Cash on hand & in banks	6.2	0.9%	0.3	1.1%	40.9%	6.2	0.4%	-51.3%	9.4	1.0%	176.5%	6.8	11.8%	1421.2%	6.2	0.5%	-95.7%	6.1	21.5%
8. Transferred loss	5.0	18.9%	5.5	17.8%	11.0%	7.8	20.3%	41.4%	11.3	26.1%	13.9%	13.9	24.1%	25.3%	15.8	24.7%	13.3%	10.8	216.7%
9. TOTAL	26.3	100.0%	31.0	100.0%	17.9%	38.5	100.0%	24.1%	42.2	100.0%	12.4%	57.7	100.0%	33.6%	62.9	100.0%	10.6%	37.6	142.8%
<b>LIABILITIES:</b>																			
10. Capital	11.1	42.1%	11.1	35.7%	0.0%	11.6	30.1%	4.5%	14.8	34.3%	28.1%	14.8	25.7%	0.0%	14.8	23.2%	0.0%	3.8	33.9%
11. Reserves	1.6	3.8%	1.0	3.3%	2.1%	1.1	2.8%	5.3%	1.4	3.2%	29.1%	1.4	2.5%	2.6%	2.0	3.2%	42.1%	1.0	102.4%
12. Provisions	3.2	12.1%	3.5	11.3%	19.4%	4.5	11.6%	26.8%	6.1	14.1%	37.3%	7.3	12.6%	18.7%	7.5	11.8%	2.3%	4.3	135.9%
13. Long-term loans	3.3	12.4%	3.6	11.5%	9.5%	4.1	10.7%	15.3%	4.6	10.7%	12.4%	4.8	8.2%	2.9%	4.7	7.4%	-0.3%	1.5	45.7%
14. Credit banks	3.5	13.4%	6.2	19.9%	75.4%	19.0	26.1%	62.3%	19.2	22.5%	1.4%	22.6	39.2%	122.8%	25.2	39.4%	11.1%	21.6	614.5%
15. Accounts payable	2.1	8.1%	3.1	9.9%	43.8%	4.0	10.5%	31.5%	2.6	6.1%	-54.4%	2.9	5.0%	10.2%	4.4	6.9%	51.5%	2.3	107.1%
16. Misc. accounts payable	2.1	8.1%	2.6	8.4%	21.4%	3.2	8.4%	23.9%	2.5	6.0%	7.9%	2.9	4.8%	12.9%	5.2	8.1%	32.2%	3.0	142.1%
17. TOTAL	26.3	100.0%	31.0	100.0%	17.9%	38.5	100.0%	24.1%	42.2	100.0%	12.4%	57.7	100.0%	33.6%	62.9	100.0%	10.6%	37.6	142.8%
<b>CURRENT OPERATIONS ACC.:</b>																			
<b>REVENUE:</b>																			
18. Income from operations	8.6	100.0%	13.8	100.0%	60.6%	17.1	100.0%	24.1%	11.5	100.0%	-22.0%	24.1	100.0%	110.0%	38.0	100.0%	57.5%	29.4	341.5%
19. Subsidies	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%
20. Total sales	8.6	100.0%	13.8	100.0%	60.6%	17.1	100.0%	24.1%	11.5	100.0%	-22.0%	24.1	100.0%	110.0%	38.0	100.0%	57.5%	29.4	341.5%
21. Other income	0.6	7.5%	1.3	9.7%	108.7%	0.8	4.5%	-42.5%	6.2	1.8%	-75.4%	0.9	3.5%	315.1%	0.9	2.4%	6.3%	0.3	41.0%
<b>EXPENSES:</b>																			
22. Wages	2.5	28.6%	3.7	26.5%	49.1%	4.4	25.6%	19.9%	4.2	36.5%	-4.5%	4.5	18.5%	6.4%	5.7	15.1%	28.5%	3.3	133.3%
23. Material inputs	5.1	59.7%	8.2	59.2%	62.2%	10.0	58.5%	22.6%	6.2	54.2%	-37.9%	13.2	54.9%	112.1%	21.6	55.9%	63.1%	16.6	327.9%
24. Service inputs	0.3	4.0%	0.5	3.4%	36.9%	0.5	2.9%	4.5%	0.4	2.4%	-19.6%	0.6	2.5%	52.2%	0.9	2.7%	48.5%	0.5	159.6%
25. Depreciation	0.6	6.5%	0.8	5.7%	41.4%	1.0	5.7%	23.9%	1.0	8.5%	0.7%	1.9	4.2%	2.7%	1.3	3.5%	30.5%	0.8	136.3%
26. Interest	0.6	7.5%	0.9	6.9%	46.8%	1.5	8.8%	59.7%	1.7	14.9%	15.6%	2.7	11.2%	57.0%	3.4	8.5%	24.6%	2.7	420.6%
27. Income tax	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%	0.0%	0.0	0.0%
28. Other expenses	0.4	4.6%	1.7	12.0%	302.7%	3.4	19.6%	103.3%	1.5	13.1%	-55.2%	5.1	21.3%	241.2%	7.8	20.6%	52.6%	7.4	1869.0%
29. Total expenses	9.5	110.0%	15.7	112.7%	66.0%	20.8	121.1%	32.2%	15.0	129.8%	-27.6%	27.2	112.5%	80.7%	40.9	107.2%	50.1%	31.3	520.6%
<b>SURPLUS/DEFICIT:</b>																			
30. Before tax	(0.2)	-2.5%	(0.6)	-4.0%	-155.8%	(2.9)	-16.6%	-419.9%	(3.3)	-29.0%	-16.9%	(2.2)	-9.0%	34.7%	(1.9)	-4.9%	15.1%	-11.0	-1.8
31. After tax	(0.2)	-2.5%	(0.6)	-4.0%	-155.8%	(2.9)	-16.6%	-418.9%	(3.3)	-29.0%	-16.9%	(2.2)	-9.0%	34.7%	(1.8)	-4.9%	15.1%	-11.0	-1.8

PRODUCTIVITY & RATIO ANALYSIS

Company: ALEXANDRIA METALS

Million L.E.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
	Year: 1982/83	1983/84	1984/85	1985/86	1985/87	1987/88													
		%	% Growth	%	% Growth	%	%	% Growth	%	% Growth	%	%	% Growth	%	% Growth	%	% Growth	Period Growth	
<b>PRODUCTIVITY ANALYSIS:</b>																			
32. Production	7.9	102.52%	12.9	101.42	65.32%	15.9	113.31	23.22%	9.8	67.31	-38.41%	23.7	105.02	143.32%	38.0	114.82	59.92%	30.2	387.92
33. Sales	7.6	89.32%	12.7	91.82	67.02%	14.0	81.62	16.32%	11.2	97.22	-20.22%	22.6	95.72	102.32%	35.1	87.02	46.32%	25.5	325.42
34. Local	7.6	100.02%	12.7	100.01	67.02%	14.0	100.01	16.32%	11.2	100.01	-20.22%	22.6	100.02	102.32%	35.1	100.02	46.32%	25.5	325.42
35. Exports	0.0	0.02%	0.0	0.02	0.02%	0.0	0.02	0.02%	0.0	0.02	0.02%	0.0	0.02	0.02%	0.0	0.02	0.02%	0.0	0.0
36. Value added	3.1	39.52%	3.8	29.82	24.82%	6.6	41.52	71.52%	2.5	36.22	-46.32%	6.4	26.92	81.02%	10.2	26.92	59.62%	7.1	232.42
37. Personnel	1,540		2,075		12.82%	2,105		1.32%	2,110		0.22%	2,068		-2.02%	2,117		2.42%	277	15.11
38. Av. income/worker, L.E.	1,326.4		1,786.7		33.22%	2,069.4		16.32%	1,955.1		-4.82%	2,155.1		8.52%	2,710.0		25.62%	1072.6	102.62
39. Productivity of L.E. wage	3.2		2.5		19.82%	3.6		2.5		-35.52%	5.3		128.72%	6.6		24.42%	2.5	169.12	
40. Labor productivity, L.E.	4,227.9		6,291.4		48.62%	7,526.9		21.52%	4,624.2		-38.62%	11,475.7		148.32%	17,936.2		56.32%	10706.0	224.62
41. Material productivity	1.54		1.57		2.02%	1.58		0.52%	1.56		-0.92%	1.79		14.62%	1.76		1.92%		
42. Capital productivity	0.44		0.68		53.62%	0.69		1.42%	0.41		-40.32%	0.69		112.82%	1.18		34.02%		
43. Capital/Labor ratio	9,512.5		9,080.0		-4.52%	10,884.9		19.92%	11,195.3		2.92%	13,060.0		16.12%	15,155.9		16.62%	5642.4	59.22
44. Inventory/Output ratio	0.53		0.36		-31.82%	0.49		26.42%	0.77		57.52%	0.44		-42.22%	0.41		-6.42%		
<b>RATIO ANALYSIS:</b>																			
45. Current ratio	1.02		0.95		-6.42%	0.90		-5.52%	0.97		8.32%	0.93		-4.82%	0.91		-2.02%		
46. Acid test	0.49		0.56		14.52%	0.45		-19.52%	0.51		12.72%	0.57		12.52%	0.46		-19.92%		
47. Debt to total assets	0.42		0.50		18.32%	0.56		11.92%	0.48		-10.02%	0.59		22.62%	0.62		4.32%		
48. Debt to equity	0.72		0.99		36.32%	1.25		26.72%	0.93		-25.12%	1.45		55.62%	1.62		11.42%		
49. Inventory turnover	2.09		2.98		42.42%	2.20		-26.12%	1.52		-20.92%	2.32		52.02%	2.44		5.22%		
50. Av. collection period, days	98		132		34.42%	134		1.22%	129		-49.12%	123		-35.62%	129		0.72%		
51. Fixed assets turnover	0.64		0.97		51.42%	1.13		16.72%	0.71		-37.02%	1.47		105.02%	2.31		57.32%		
52. Total assets turnover	0.33		0.45		36.22%	0.45		0.02%	0.27		-40.42%	0.42		57.22%	0.60		42.42%		
53. Profit margin on sales	af. tax -2.52%	af. tax -2.52%	af. tax -4.02%	af. tax -4.01%	af. tax -59.22%	af. tax -16.62%	af. tax -16.62%	af. tax -319.22%	af. tax -29.72%	af. tax -29.01%	af. tax -74.52%	af. tax -9.02%	af. tax -9.02%	af. tax -68.92%	af. tax -4.92%	af. tax -4.92%	af. tax -46.12%		
54. Return on money employed	-1.62%	-1.62%	-4.02%	-4.02%	-153.72%	-21.22%	-21.22%	-429.12%	-21.22%	-21.22%	0.12%	-15.22%	-15.22%	28.72%	-13.92%	-12.92%	8.72%		
55. Return on net worth	-1.42%	-1.42%	-3.52%	-3.52%	-150.02%	-16.72%	-16.72%	-373.52%	-14.92%	-14.92%	10.52%	-9.22%	-9.22%	38.02%	-7.62%	-7.62%	18.12%		
56. Du Pont ratio	-0.82%	-0.82%	-1.82%	-1.82%	-117.02%	-7.42%	-7.42%	-319.22%	-7.72%	-7.72%	-4.62%	-3.82%	-3.82%	51.12%	-2.92%	-2.92%	23.32%		

Item Key:

First Column: 38=(22/37); 39=(32/22); 40=(52/37); 41=(32/23); 42=(22/(1+2+3)); 43=((1+2+3)/37); 44=(2/32); 45=(3+4+5+6+7)/(14+15+16); 46=(4+5+6+7)/(14+15+16); 47=(13+14+15+16)/9; 48=(13+14+15+16)/(10+11+12);  
 49=(20/3); 50=(5+6)/(20/249); 51=(20/(1+2)); 52=(20/9); 53=(3/20); 54=31/(9+8)-(14+15+16); 55=(31/(10+11+12)); 56=(21/20)(20/9)  
 Second Column: 32=(32/33); 33=(33/20); 34=(34/33); 35=(35/33); 36=(26/32)

136

### Constant Price Deflators and Productivity Parameters

The constant price series for the various parameters used in the productivity analysis in Section 6 were calculated on the following basis :

- Output: Using price index series calculated for each company by employing the previous years prices given in the performance evaluation reports issued by the MOI.
- Material: Using CAPMAS whole sale price indices for metals and inputs products thereof
- Capital: Assuming that 30% of fixed assets is for buildings and structures and 70% for equipment and machinery and then applying CAPMAS whole sale price indices for construction materials and transportation equipment, respectively. Inventory is deflated using CAPMAS whole sale price indices for metals and products thereof.
- Wages: Using CAPMAS consumer price indices for urban population.

The price indices for output are given in Section 5, the indices used for the other parameters are given below:

	1982/82	1983/84	1984/85	1985/86	1986/87	1987/88
Construction materials	100.0	105.58	110.25	126.52	134.49	134.83
Transport equipment	100.0	109.36	109.36	138.65	148.95	148.95
Metals & products	100.0	109.18	118.11	129.56	129.56	133.37
Consumer price index	100.0	116.08	135.89	153.96	188.69	225.85

Output, material inputs, capital and wages in constant 1982/83 prices, together with the pertinent productivity ratios based thereon are given in the following tables.

101

## OUTPUT-IN CONSTANT 1982/83 PRICES:

L.E. Million

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	Period Growth, %
Ideal	111.6	123.5	134.4	138.1	166.1	228.7	105%
Telemisr	97.3	117.7	131.1	92.0	72.3	74.3	-24%
Philips	64.6	65.6	74.9	55.1	55.1	65.5	1%
Nasr TV	64.1	91.9	117.5	67.9	53.8	91.4	43%
Eltranco	30.3	30.3	29.4	31.1	44.7	48.5	60%
Sabi	13.9	18.1	20.0	22.5	22.8	28.6	106%
Cairo metals	15.7	17.1	17.3	17.4	18.2	16.9	8%
Alex. Metals	7.8	12.5	14.5	8.4	20.2	26.2	237%
Koldair	16.7	24.0	24.8	29.9	35.2	34.4	106%

## MATERIAL INPUTS IN CONSTANT 1982/83 PRICES:

L.E. Million

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	Period Growth, %
Ideal	57.8	53.3	54.9	59.3	82.8	138.8	140%
Telemisr	63.0	69.1	80.3	59.5	46.9	50.5	-20%
Philips	41.8	38.1	40.5	33.9	29.0	38.5	-8%
Nasr TV	44.5	50.6	66.0	41.8	29.3	47.2	6%
Eltranco	18.4	18.7	19.2	19.4	26.1	28.0	52%
Sabi	7.4	7.1	9.2	7.3	7.6	10.6	44%
Cairo metals	9.3	8.5	7.4	7.8	7.7	10.6	14%
Alex. Metals	5.1	7.5	9.5	4.8	10.2	16.2	218%
Koldair	9.5	10.4	10.1	9.2	10.7	14.9	57%

## CAPITAL IN CONSTANT 1982/83 PRICES:

L.E. Million

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	Period Growth, %
Ideal	91.6	86.6	101.5	133.1	177.3	191.3	109%
Telemisr	48.5	45.4	35.1	18.3	37.7	55.2	14%
Philips	66.6	60.1	67.0	51.9	59.4	76.2	14%
Nasr TV	33.1	39.1	49.4	48.2	67.7	72.4	119%
Eltranco	35.1	44.0	43.0	44.2	51.4	75.2	114%
Sabi	28.2	35.1	40.1	35.2	37.6	46.2	64%
Cairo metals	38.0	39.9	40.0	34.7	32.8	41.0	8%
Alex. Metals	17.5	17.3	20.4	17.7	19.5	23.1	32%
Koldair	29.7	22.6	25.1	25.0	24.9	34.2	19%

OUTPUT/MATERIAL RATIO (constant 1982/83 prices)

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	Period Growth, %
Ideal	1.9	2.3	2.4	2.3	2.0	1.6	-15%
Telemisr	1.5	1.7	1.6	1.5	1.5	1.5	-5%
Philips	1.5	1.7	1.9	1.6	1.9	1.7	10%
Nasr TV	1.4	1.8	1.9	1.6	1.8	1.9	35%
Eltranco	1.6	1.6	1.5	1.6	1.7	1.7	5%
Sabi	1.9	2.6	2.4	2.9	3.0	2.7	43%
Cairo metals	1.7	2.0	2.2	2.2	2.4	1.6	-5%
Alex. Metals	1.5	1.7	1.7	1.8	2.0	1.6	6%
Koldair	1.8	2.3	2.5	3.1	2.3	2.3	31%

OUTPUT/CAPITAL RATIO (constant 1982/83 prices)

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	Period Growth, %
Ideal	1.2	1.4	1.3	1.0	0.9	1.2	-2%
Telemisr	2.0	2.6	3.6	5.0	1.9	1.3	-33%
Philips	1.0	1.1	1.1	1.1	0.9	0.9	-11%
Nasr TV	1.9	2.3	2.4	1.4	0.8	1.3	-35%
Eltranco	0.9	0.7	0.7	0.7	0.9	0.6	-35%
Sabi	0.5	0.5	0.5	0.6	0.6	0.6	26%
Cairo metals	0.4	0.4	0.4	0.5	0.5	0.4	0%
Alex. Metals	0.4	0.7	0.7	0.5	1.0	1.1	155%
Koldair	0.6	1.0	1.0	1.2	1.0	1.0	73%

OUTPUT/WAGES RATIO (constant 1982/83 prices)

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	Period Growth, %
Ideal	5.3	5.9	6.9	7.4	9.0	13.0	144%
Telemisr	12.0	12.9	15.6	18.4	19.9	17.7	47%
Philips	11.7	12.7	13.9	12.5	14.2	16.4	40%
Nasr TV	9.7	11.8	14.3	12.7	12.5	16.9	119%
Eltranco	6.1	6.0	6.0	6.5	8.5	10.0	66%
Sabi	3.7	4.5	4.7	5.7	7.4	9.5	153%
Cairo metals	2.9	3.2	3.5	3.8	4.1	3.9	37%
Alex. Metals	3.1	3.9	4.5	3.1	3.5	10.4	234%
Koldair	2.9	3.8	4.0	5.4	5.5	7.4	153%

LABOR (NUMBER):

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	Period Growth, %
Ideal	8,480	8,538	8,674	8,080	9,563	9,573	13%
Televisr	2,490	2,630	2,711	2,710	2,622	2,970	15%
Philips	3,197	3,395	3,595	3,607	3,535	3,633	14%
Nasr TV	2,686	2,675	2,667	2,663	2,670	2,652	-1%
Eltranco	2,945	3,093	3,226	3,110	3,400	3,400	15%
Sabi	2,360	2,585	2,681	2,422	2,208	2,246	-5%
Cairo metals	2,872	3,062	3,092	3,131	3,072	3,085	7%
Alex. Metals	1,840	2,075	2,103	2,110	2,068	2,117	15%
Koldair	2,689	2,664	2,336	2,900	2,403	2,345	-13%

WAGES IN CONSTANT 1982/83 PRICES:

	L.E. Million						Period Growth, %
	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	
Ideal	20.9	20.9	19.6	18.7	18.5	17.5	-16%
Televisr	8.1	8.4	8.4	5.0	3.7	4.2	-49%
Philips	5.5	5.2	3.4	4.4	3.9	4.0	-32%
Nasr TV	7.4	7.9	3.2	3.3	4.0	4.8	-35%
Eltranco	5.0	5.1	4.3	4.3	5.2	4.8	-3%
Sabi	3.7	4.0	4.1	4.0	3.1	3.0	-19%
Cairo metals	5.5	5.3	5.0	4.5	4.5	4.3	-21%
Alex. Metals	2.5	3.2	3.2	2.7	2.4	2.5	1%
Koldair	5.7	6.3	6.2	5.5	4.6	4.6	-16%