CHAPTER II

THE PROJECTED GROWTH OF THE NATIONAL ECONOMY

During the last ten years, Saudi Arabia was the scene of rapid economic and social changes, and of progress on all fronts. Because there were so many projects to be implemented simultaneously, almost everything done yielded some benefits. The salient features of this dynamic evolution have been: the extremely rapid growth in national income, one of the highest growth rates in the world; rapid urbanization; improved interchange and mobility among the people through better communications, roads, and air services; and enhanced international stature and prestige.

As in most instances of such rapid progress, there were growing pains. While these natural problems might have proved self-correcting, given time, they were greatly exacerbated by the Mid-East conflict in 1967 and its lingering consequences. These factors, in combination, emphasize that development policies should be pursued to safeguard the Kingdom of Arabia against sudden crises.

A study has been made of the 11 major sectors into which are grouped all the activities that generate goods and services and which, in the aggregate, produce the Kingdom's Gross Domestic Product (GDP).

The following sections of this chapter discuss the historical trends of each sector separately and the role of each in the national economy, the rational underlying each individual projected rate of growth, and the conclusions reached.

SUMMARY OF RECENT TRENDS

As for any economy, projections of the Kingdom's economic growth are based on historical trends combined with potential changes resulting from deliberate policies and the operation of natural economic and social forces.

Historical trends are, of course, only a part of projections. It is essential to understand the institutional framework, the external forces impinging on internal economic development, and the peculiarities of the economic interrelationships within a country.

In Saudi Arabia, the principle factors to consider are:

1. Estimates of future oil production and revenues,
2. Government policies as reflected by planned expenditures for social and economic development, and
3. Structural changes in the interrelationships among the various producing sectors of the economy.

It is also necessary to take into account the fact that foreign trade is of much greater economic significance in Saudi Arabia than in any other country of comparable size and wealth. Historically, over 85 percent of the Government's revenues have been derived from oil and are, thus, automatically in the form of foreign exchange earnings — a distinct advantage over most developing nations. However, Saudi Arabia's dependence on imports of goods and services is also relatively extreme — marginal propensity to import has averaged 30 percent in recent years. Further, these heavy imports are due to an extreme dependence on foreign sources for food and other basic necessities, and for the machinery and materials required to develop the nation's physical infrastructure and to modernize the economy.

Until the June War, these import requirements were well within the economy's capability. In fact, SAMA holdings, in the form of gold and foreign exchange, increased from SR 1,280 million at mid-1382 to SR 3,836 million at mid-1387. Though imports were increasing at a faster rate (16.8 percent*) than exports (11.6 percent*), because the export base was larger, the absolute difference** actually increased from SR 3,610.9 million in 1382-83 to SR 5,195.6 million in 1386-87.

During this same period (1382-83 to 1386-87), Gross Domestic Product — in constant prices — grew at an average annual compound rate of 10.5 percent. Further, government revenues during the period exceeded spending. In brief, the economy was moving ahead on all fronts.

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* *Current prices.*
** *Foreign trade balance on commodities only.*

The picture changed as a result of the Middle East crisis and its direct consequences. The most important of these were the declines in the rate of growth of GDP, the gold and foreign exchange holdings of SAMA, and the percentage increase in oil production.

During the subsequent two years, the unfavorable impact generated by these dramatic shifts was supplemented by increased burdens on the economy, primarily in the form of further defense commitments for the Kingdom itself and payments to its sister countries. Further, total government expenditures rose more rapidly than revenues.

These changes in trends made it necessary to pursue policies that would keep the deficit under control as the decline in the percentage rate of growth and other economic parameters continued. It is evident that such changes would call for the pursuance of corrective policies designed to protect the advances made prior to the Middle East crisis. Probably, if not certainly, the most important of these policies is progress in accordance with a development plan that will deploy human and physical resources where they can best be utilized.

SECTORAL ANALYSES

The "Economic Report of 1387-1388" and the "Guidelines for the Development Plan" were prepared in 1389 Since then, it has been possible to add data on the Kingdom's GDP for two more years. Further, the depth of detail about the individual sectors has been expanded. This has increased confidence in the reliability of certain of the statistical data and has made it possible to refine the techniques employed in estimating the value added in most sectors and in projecting their future growth. Continued work in improving historical and current data will retain the highest priority since such data are the foundation for making projections and, thus, for planning.

The Oil Sector

The key to the economy of Saudi Arabia now, during the coming decade, and probably for many future years, is oil*.

Production of Crude Oil

In 1966, the year prior to the June War, oil production increased by 18.0 percent. This rate of increase fell to 7.8 percent in 1967; it was 8.8 percent in 1968 and only 5.3 percent in 1969. (The pattern and actual numbers are somewhat different on a Hijra year basis because the method of calculation introduces a smoothing effect.)

Petroleum Refining

Changes in the quantity of petroleum refined correspond closely to changes in the production of crude oil. A historical comparison of the two in terms of their relative contributions to GDP show the following:

RELATIVE SHARES OF GROSS DOMESTIC PRODUCT
(Percent in current prices)

	1382-83	1383-84	1384-85	1385-86	1386-87	1387-88	1388-89
Production of Crude Oil, %	47.1	44.2	44.0	46.3	46.3	46.8	46.6
Petroleum Refining, %	6.1	6.4	6.4	5.9	5.6	6.0	6.1
Total	**53.2**	**50.6**	**50.4**	**52.2**	**51.9**	**52.8**	**52.7**

Summary

In making projections for crude oil production and refining, it must be recognized that there are many uncertainties about future production and prices because of factors beyond Saudi Arabia's control.

* *In addition to the production of crude oil, there are several other GDP sectors directly affected — petroleum refining, transportation (Tapline), construction, and trade and services. For discussion purposes herein, petroleum refining is combined with crude oil production — their pattern of behaviour is similar. Since Tapline is currently shut down (except for the deliveries to Jordan), it has been omitted from the projections. The oil companies' contributions to the construction, and trade and services sectors are treated as part of those sectors.*

During the period of the Plan, an average annual rate of increase of 9 percent is projected for both production and refining. This rate of increase will probably be exceeded substantially this year due to a recovery from the very low increase in 1969. This increase (after conversion to Hijra years) would result in the following:

	1388-89	1389-90	1390-91	1391-92	Thereafter.
Rate of annual increase, %	6.1	11.0	9.5	9.0	9.0

For Petroleum refining, it is assumed that the changes will be fairly similar as follows:

	1388-89	1389-90	1390-91	1391-92	Thereafter.
Petroleum Refining, %	10.2	10.7	9.8	9.0	9.0

As mentioned above, many factors could dramatically affect these projections, but the rates are certainly within the realm of feasibility. If these targets are not achieved, growth in the other sectors will be adversely affected. If the targets are exceeded, development can be accelerated accordingly.

Agriculture

The most important sector in terms of the number of people involved is agriculture. Success in agricultural development is essential to real improvements in the way the majority of people live. Significant improvements in agriculture would also benefit other sections of the population by:

1. Lower prices of agricultural products.
2. Provision of fresh fruits and vegetables.
3. Provision of more varied diet.
4. Reduction of foreign exchange drain.
5. Serving as a base for agroindustry development.

In making projections for this sector, the record is not particularly useful except for the past two years, due to a severe drouth in the prior years. In value-added terms, the computed percentage increase in agriculture is as follows:

Actual		Estimated
1387-88	1388-89	1389-90
4.1%	3.0%	4.0%

While these rates are lower than those estimated for other sectors, they are not low for agriculture. In fact, a sustained growth rate of four percent in agriculture would place Saudi Arabia among the world's leaders in this respect. The Government has devoted considerable resources to agricultural development and much of this is only now starting to pay off. Continued programs of education and training, improvements in seeds and fertilizers, shifts to higher value crops, increases in cultivated area, and more irrigation should lead to a progressive rate of increase. Therefore, the projections for increases in value added for agriculture are assumed to have the following pattern:

1389-90	1390-91	1391-92	1392-93	
4.0%	4.2%	4.4%	4.6%	and so on

This pattern cannot, of course, continue indefinitely; however, it should be possible to attain a level of some five percent during the coming decade and to maintain that level. An annual rate of increase of 5 percent would double the country's agricultural output every 14 years.

Mining and Quarrying (excluding petroleum)

Currently, most of the activity in this sector consists of quarrying — primarily building stone of various types — but significant quantities of gypsum, clay, and lime are extracted. The mining of iron ore is still insignificant. For this reason, the rate of growth in this sector is assumed to correspond closely to that in the construction sector.

Historically, this has been the smallest sector in GDP and will probably remain so, at least for the next five to ten years. There are, however, many possibilities that may prove to be commercially feasible for future exploitation: phosphate, iron ore, copper, gold, silver, zinc, lead and other ores.

The Plan envisages that one or more of these opportunities will be realized by 1393-94 and that the rate of growth in this sector will increase substantially in that year and grow rapidly from then on.

Manufacturing

Manufacturing (excluding petroleum refining) is still in its infancy in Saudi Arabia. While there are some 30 classes of products manufactured in the Kingdom, there is as yet nothing approaching an industrial complex. Manufacturing's share of GDP averaged just under two percent during the period 1382-83 to 1388-89; however, it was growing faster than GDP as a whole and the trend is expected to continue.

It is estimated that manufacturing has increased at an average annual rate of 11.3 percent from 1382-83 to 1388-89, and averaged 12.1 percent during the last 3 years of that period. Still further increases should be expected as a result of past and current studies of investment opportunities in this sector.

In addition to development of new industries, established firms will continue to improve and expand. Moreover, continued expansion of education and training programs will sustain increasing growth rates by alleviating the severe constraint imposed by the shortage of skilled manpower.

Further, there are opportunities for large scale petrochemical industries; for utilizing more of the capacity of the steel mill and expanding its capacity; and for other industries, if suitable deposites of metals or minerals are discovered and exploited. Because manufacturing's contribution to GDP is still relatively small (SR 299 million in 1388-89), implementation of large scale enterprises on the order contemplated by Petromin would have a dramatic impact.

It is anticipated that growth during the plan period will average about 14 percent. This would mean an increase in manufacturing's contribution to GDP from 1.9 percent in 1388-89 to approximately 2.7 percent in the last year of the Plan — a gain of over 40 percent.

Construction

The contribution of construction to growth in other sectors is obvious. It is also economically important because it is the primary user of domestically available resources, both physical and human. Many construction activities do not require previous training and skills, yet performing the required tasks involves a learning process that usually leads to increased competence and the acquisition of knowledge and supplementary skills.

For the period 1382-83 to 1388-89, the growth in value added for construction averaged 12.1 percent per year. However, during the last three years of that period this average dropped due to leveling off of construction connected with the oil industry, completion of SAFCO, and a much smaller increase than usual in construction for government projects.

In making future projections, estimates were made for the six major components comprising total construction. These estimates were based on construction requirements in connection with continued increases in oil production and refining, new Petromin projects and other industry, additional housing, expansion of utilities, and increased spending on government projects. These estimates also consider that construction must occur before some activities start to yield additional output.

Based on requirements as evidenced by growth in these areas, a composite rate of growth was derived for construction as a whole. The average annual growth rate for the plan period for this sector as a whole is 10.4 percent, and it is expected to be 11.7 percent at the end of the Plan.

Electricity, Gas, Water, and Sanitary Services

In all developing nations, the shortage of adequate utilities is a common characteristic. It is almost impossible to do enough soon enough. Their importance to individual welfare is manifest but they are equally crucial to industry.

Public utilities and manufacturing are the prime beneficiaries of economies of scale. Once a utility network (powerline, water main, gas main, or sewer) is constructed, more users can be added at little increase in costs. This obvious gain from increased use of existing facilities, however, does not mean new utility networks should be established indiscriminately simply because they are desirable. The heavy capital costs require that a substantial demand exists.

There are also important external economies associated with this sector. Once a utility network is established, the area usually attracts new industries or housing developments.

It is not surprising to note that, from 1382-83 to 1388-89, this was the fastest growing sector in the economy — an average annual rate of increase of 15.6 percent.

In constructing future projections, each major part of the sector was treated separately. The growth rates projected for each are a reflection of utility company plans, government programs, and increased per capita consumption. The average annual rate of increase projected for the whole sector is 13.2 percent and for the end of the Plan is 14.3 percent.

Transportation, Communications, and Storage

Basically, this sector consists of transportation and communications. (The contribution to GDP from storage in the Kingdom is still negligible). It is this sector that links the people of the country into an entity and makes possible the interchange of goods and services.

Transportation and communications accounted for 7.4 percent of the nation's GDP in 1388-89. The only significantly larger sector was crude oil production. The public administration and defense sector was slightly larger and trade was the same size.

The four major components in this area are: Tapline; airlines, railways, shipping; posts, telegraph and telephone; and mechanized road transport. No projections are included for Tapline as it is currently closed; however, at its peak Tapline accounted for only some five percent of the sector's total. If Tapline is reopened, the projections should be revised upward slightly.

The airlines, railways, and shipping component is projected to increase at a constant rate. There is no provision for any dramatic change over the next several years with respect to value added.

Mechanized road transport accounts for 85 percent of the value added the first year of the Plan and is projected to increase during the plan period at the same rate as in the past 4 years.

Posts, telegraph and telephone has fluctuated widely over the past six years, but government programs in this area will produce a progressive rate of increase throughout the plan.

The treatment described above yields an average annual rate of increase of 12.9 percent for the sector as a whole during the plan period, and reaches 13.2 percent the last year of the Plan.

Wholesale and Retail Trade

Economic development means — and depends on — specialization. By making possible the interchange of goods, trade permits the producing elements of the economy to achieve their respective comparative advantages.

Trade not only grows in its own right but it is the means whereby the output of agriculture and industry is marketed, and the means by which the economy's growing demands are satisfied. It should be kept in mind that value added is always only one measure of this sector's contribution to the economy. Increases in efficiency in the trade sector directly produce important benefits elsewhere.

As mentioned above, this sector has one of the highest growth rates in the economy: over the past 6 years, the average annual rate was 12.8 percent. In size it is almost identical to transportation and communications: 7.4 percent of GDP. It accounts for over 24 percent of the private (non-oil) portion of GDP.

In constructing projections for this sector, a constant rate of increase of 12.8 percent is used. Though this rate is almost 40 percent higher than that for the economy as a whole, it may prove conservative; however, any normal deviation between the projected rate and actual experience will not affect the Plan.

Insofar as trade is concerned, the role of Government is basically to assist the sector to become more efficient, promote fair practices, and settle disputes.

Banking, Insurance, and Real Estate

The fact that this sector has grown more rapidly over the past years than the economy as a whole is evidence of development and increased monetization of the economy. While insurance and real estate are still quite minor, they are growing.

The key component — banking — is essential in facilitating exchange, in providing for the storing of monetary wealth, transferring funds, and in providing credit.

For reasons of lack of information the value added in this sector was approximated. Based on the historical estimates, the projections assume that future growth will occur at the same average rate — 11.0 percent — more than 10 percent higher than that for the economy as a whole.

Ownership of Dwellings

This sector measures the value added of owner-occupied and tenant-occupied dwellings. It includes villas, apartments, traditional mud-houses, and tents. Its value is the contribution to people's welfare; people who are well housed are more productive. Growth of this sector is two dimensional: first, the number of units can be increased, and second, the quality of the units can be improved. The growth rate in this sector has been relatively low, hence the Government should give it special attention.

The reasons for the low growth rate are clear. The base was relatively large prior to 1382-83 which overshadows the limited growth that has been achieved. Immigration from rural areas to cities in recent years has not been accompanied by a corresponding increase in housing available in these cities. The growing need for housing to accomodate an expanding and increasing urban population must be kept in mind and in particular the need for low-cost housing. It is less costly to face this problem at an early stage than to try to cure the problem when it has become more burdensome.

The projected growth rate for the first year of the Plan is based on the average annual rate for the last two years (1387-88 and 1388-89); however, this rate is gradually increased over the plan period due to the Government's increasing participation and assistance in this important area of human welfare. It is expected that the average growth rate of this sector will reach 8.6 percent.

Public Administration and Defense

This sector covers the services of the central government (including defense) and of the municipalities. Excluded (all or in part) are:

Government Agency		GDP Sector to which allocated
Ministry of Health	—	Health
Ministry of Education	—	Education
Ministry of Communications	—	Transportation, Storage, and Communications (PTT)
Ministry of Information	—	Other Services
Ministry of Hajj and Waqfs	—	Other Services
Municipalities	—	Electricity, Gas, Water and Sanitary Services.

In this sector, as in all public sectors, value added is not a real measure of the value produced nor usually even of the total costs incurred. Expenditures by a government agency may double, triple, or increase ten-fold, with little or no effect on value added. For example, large-scale imports of machinery or material would increase costs tremendously but would not affect value added.

Because of demands for resources for development programs, projections for this sector are based on an average annual growth rate of five percent. While this is lower than for any other sector except agriculture, it is still rapid enough to double the size of the sector every 14 years. In addition, the government services included in other sectors, as noted above, will grow at significantly higher rates, so that government services as a whole will be growing about as rapidly as the overall economy.

Health

The health sector shows very little growth over the period 1382-83 to 1388-89—an average growth of 5.8 percent annually.

Since most of the value added in this sector is created by government services and facilities, the improvements demanded must be met primarily by public programs.

This is one sector where the manpower constraint is clearly more important than the financial one. For this reason, the Plan provides for a modest increase of 9.2 percent the first year and allows for progressive increases in this rate. By the last year of the Plan, the annual rate of increase is 9.9 percent.

Education

In Saudi Arabia, the inadequacy of the labor force with respect to education and commercial and technical skills is frequently more of a constraint on rapid development than is financial capability. Further, continued growth and diversification will lead to ever-increasing demands for manpower skills of every type. The key to meeting these growing demands is education. While people can be taught skills without being educated, educated people can be taught more things and more easily.

More importantly, human welfare is what development is all about. And education is the means by which people enhance their capability to contribute to development, to participate in it, and, to appreciate the significance of both these roles.

To meet this need, the Plan includes provisions for rapid expansion of the Kingdom's educational programs on all fronts and on all levels. Not only should the opportunity for elementary education be made available for everyone, but those who qualify should be able to mõve on to ever higher levels. In value added terms, the expansion of the Kingdom's educational system increases at an average annual rate of 19 percent over the plan period, with the rate of increase being somewhat higher in the first few years and lower in the last years.

Further reductions in the rate of growth in the future can probably also be made, but this is contingent on a substantial effort over the next several years.

Other Services

This sector has been growing slightly slower than the overall economy (an average rate of 8.2 percent vis-a-vis 9.5 percent for GDP); however, it is expected that growth in this sector will accelerate throughout the plan period.

In projecting growth of this sector no allowance was made for any increase in the component contributed by the oil companies.

The government services included herein consist of religious services and radio and TV broadcasting. In combination, these sectors are projected to grow at an average annual rate of 7.8 percent.

The largest component of this sector consists of services rendered by private establishments and domestic services. This component is expected to grow faster than the economy as a whole and at an increasing rate. Increased development and urbanization will create an ever-growing demand for specialization and reliance on others for their particular skills.

By the final year of the Plan, annual growth in this sector is estimated at 10.8 percent, and this rate is expected to continue to grow into the future.

GROSS DOMESTIC PRODUCT — SUMMARY AND CONCLUSIONS

The projected GDP for each year is, of course, simply the result of adding the projections made of the behavior of the individual sectors. Before summarizing these results, certain observations are in order.

The individual plans in combination provide for orderly progress with special emphasis on bottleneck areas, such as manpower. The Plan is designed to exploit the Kingdom's natural resources and to involve its people in some capacity or another in the nation's progress.

The planned expansion in industry and agriculture will not only produce employment and rising incomes, but also will lead to both decreasing reliance on imports and possibly earnings from exports. For example, if agricultural imports could be held to their present level, while amounting to better than five percent of GDP in the previous decade, this dependence could be reduced to three or even two percent.

Expansion of the construction, manufacturing, and trade and services sectors will all provide new opportunities for employment and higher living standards.

Developments in transportation and communications, in utilities, and in housing will improve individual living standards and offer new advantages to industry and trade.

Elevation of educational and health standards will yield an evergrowing base for future development in the form of a stronger, more knowledgeable people.

During the first year of the Plan, GDP is projected to increase by 9.6 percent (Fig. 1 shows the absolute increase); this gain is mainly due to the influence of oil. Thereafter, however, though the projected annual increase in oil is a constant 9.0 percent, total GDP grows faster, reaching an annual rate of 10.0 percent in the last year of the Plan. The sectoral projections for the plan period and the actual growth rates from 1385-86 to 1388-89 are presented in Table 1. (See Fig. 2).

TABLE 1

AVERAGE ANNUAL GROWTH RATES OF VALUE ADDED BY SECTOR AND GROSS DOMESTIC PRODUCT

(Constant Prices)

SECTOR	**Average Growth Rates for 1385/86 to 88/89** (Percent)	**Average Growth Rates for the Plan Period** (Percent)
Agriculture	1.7	4.6
Crude Oil & Natural Gas	8.2	9.1
Mining and Quarrying	6.4	23.3
Petroleum Refining	11.7	9.1
Manufacturing	12.1	14.0
Construction	4.2	10.4
Electricity, Gas, Water, and Sanitation	12.1	13.2
Transportation, Communications & Storage	11.1	12.9
Wholesale & Retail Trade	10.3	12.8
Banking, Insurance and Real Estate	10.7	11.0
Ownerships of Dwellings	7.0	8.6
Public Administration and Defense	5.4	5.0
Education	7.2	19.0
Health	2.4	9.5
Other Services	8.1	10.0
GROSS DOMESTIC PRODUCT	**7.9**	**9.8**

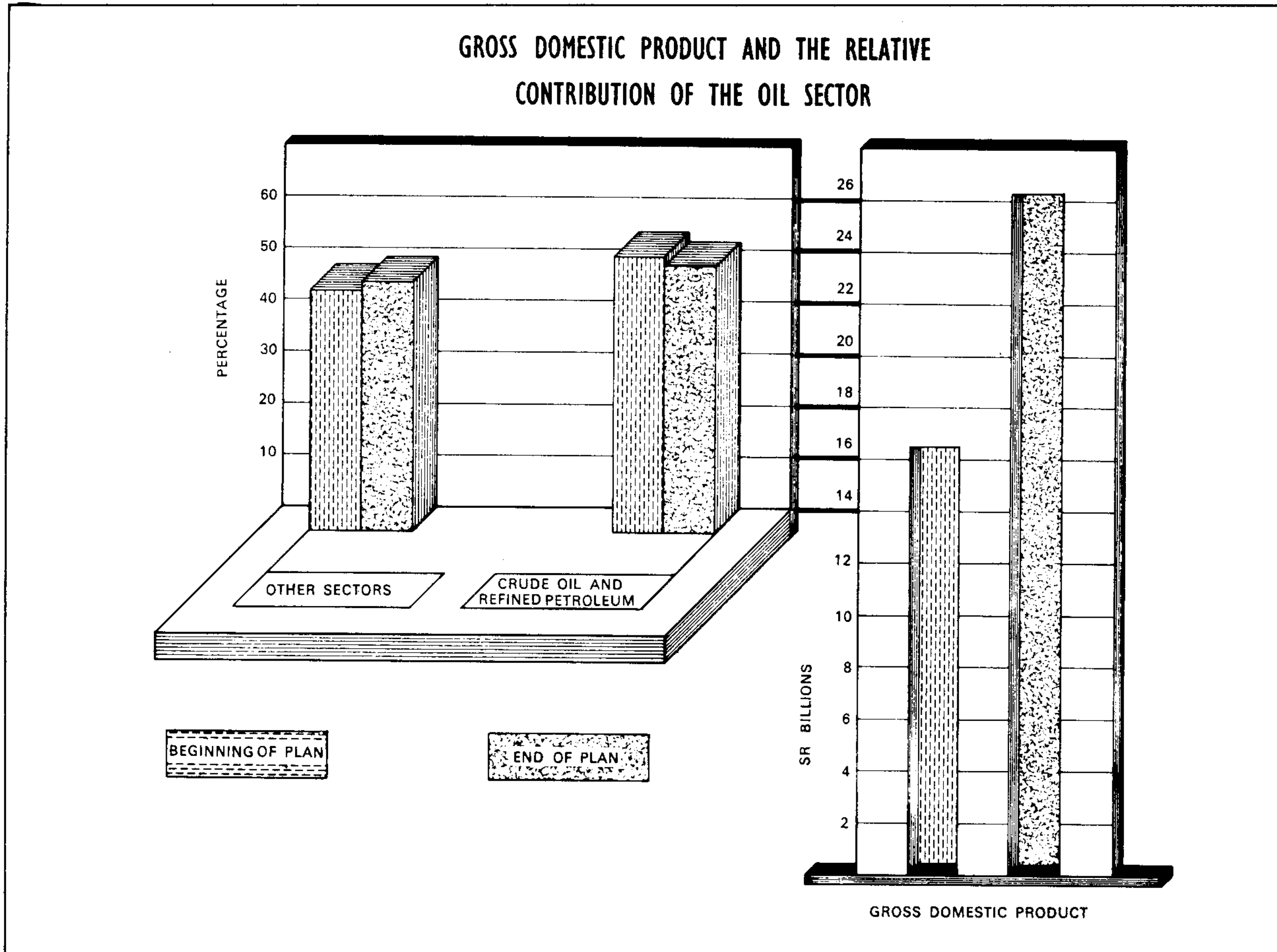
GROSS DOMESTIC PRODUCT AND THE RELATIVE CONTRIBUTION OF THE OIL SECTOR
PERCENTAGE
60
50
40
30
20
10
OTHER SECTORS
CRUDE OIL AND REFINED PETROLEUM
BEGINNING OF PLAN
END OF PLAN
26
24
22
20
18
16
14
12
10
8
6
4
2
SR BILLIONS
GROSS DOMESTIC PRODUCT

Fig. 1

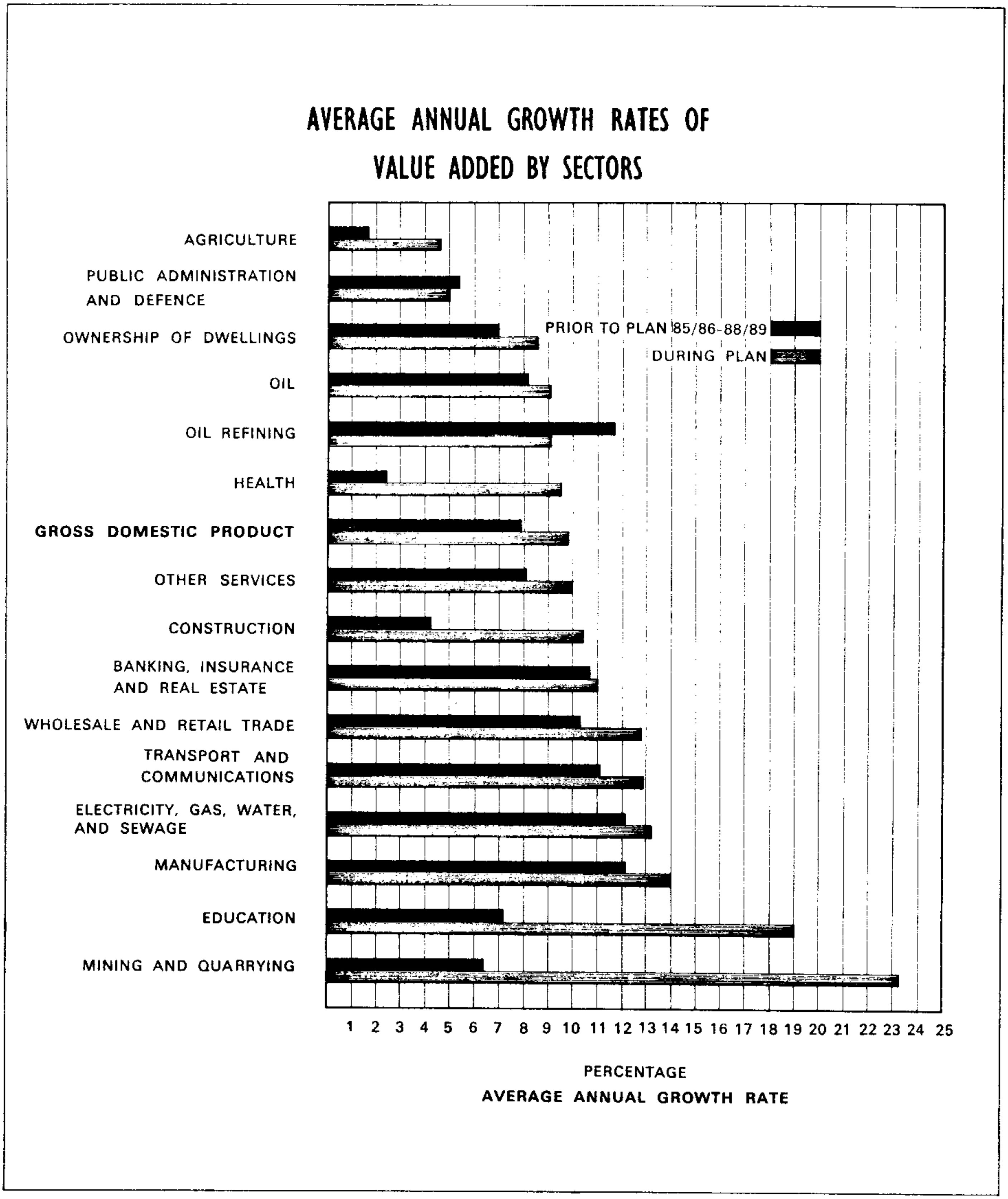
AVERAGE ANNUAL GROWTH RATES OF
VALUE ADDED BY SECTORS
AGRICULTURE
PUBLIC ADMINISTRATION AND DEFENCE
OWNERSHIP OF DWELLINGS
OIL
OIL REFINING
HEALTH
GROSS DOMESTIC PRODUCT
OTHER SERVICES
CONSTRUCTION
BANKING, INSURANCE AND REAL ESTATE
WHOLESALE AND RETAIL TRADE
TRANSPORT AND COMMUNICATIONS
ELECTRICITY, GAS, WATER, AND SEWAGE
MANUFACTURING
EDUCATION
MINING AND QUARRYING
PRIOR TO PLAN 85/86-88/89
DURING PLAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
PERCENTAGE
AVERAGE ANNUAL GROWTH RATE

Fig. 2