RS/1979-39/STAFF

ISTITUTO AFFARI INTERNAZIONALI - ROME - ITALY

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Red Sea Conflicts and Cooperation
Regional Balance and Strategic Implications

SAUDI ECONOMIC DEVELOPMENT: THE CASE FOR REGIONAL INTEGRATION

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Discussion Paper
Cairo, 18-22 October 1979

FOREWORD

This paper on the Saudi economic development and integration is part of a larger research project on the political and economic evolution of the Red Sea region. It is a draft version of a research work on the economic cooperation and integration of that region. The final version will include also Egypt, Sudan, Ethiopia, Somalia, the two Yemens, Israel and Jordan. These countries will be considered from the same point of view I have adopted for Saudi Arabia, even though with a different emphasis. For example, Israel will not be examined as such, but for her relations with Egypt and the international environment. Therefore, I will try to point out their developmental strategies and their different attitudes to integrate themselves in the international, national and, most of all, regional environment.

I will add to this country-by-country analysis, a survey of the most important cooperation schemes working within the region, such as the Saudi-Sudanese Red Sea Joint Commission.

The country-by-country analysis and the survey should form the basis for an assessment of how economic cooperation - if there is any - may be engineered within the Red Sea area.

This paper is complementary with that of Nayla Sabra on the regional financial cooperation, and that of Giuseppe Pennisi on the movement of manpower in the area.

Rome, 12.10.79

R.A.

A single product economy

As is well known, Saudi Arabia is the world's largest exporter of oil. She also possesses the world's largest proven reserves. Oil completely dominates the Saudi economy. Indeed, we could even go so far as to talk in terms of an "oil monoculture".

For a series of reasons which we do not need to go into here, the price of oil, unlike that of other non-agricultural primary products, has tended in the past to be extremely stable and indeed to rise significantly. Oil importers have proved incapable of exerting any real influence over prices. Nonetheless, however important this is for economic policy, it is the only real difference between the Saudi economy and other economies whose prosperity is based exclusively on one or two products (other than oil). From a structural and - to a large extent - from a functional point of view, Saudi Arabia is a typical single product economy (1), characterized by a lack of complex economic structures or of any independent role vis à vis the international economic system.

The extremely low level of complexity achieved by the Saudi economy is apparent from the figures for GDP given in the Table 1 on the following page. As can be seen, the extraction of crude oil and natural gas are of fundamental importance, contributing 74.8% of GDP in 1969-70 and 81.5% in 1974-75. Oil's weight in the economy is growing. The share of the remaining sectors of the economy - with the possible exception of the building industry - are either falling or constant. The share

Table 1

	1969/70		1974/75	
	S.R. billions	%	S.R. billions	%
Private				
Agriculture	1.2	1.7	1.4	0.9
Crude petroleum & natural gas	52.2	74.8	121.2	81.5
Other mining & quarrying	-	0.1	0.2	0.1
Petroleum refining	6.1	8.7	7.5	5.0
Other manufacturing	0.5	0.7	0.9	0.6
Electricity, gas, water	0.2	0.3	0.3	0.2
Construction	1.9	2.7	4.4	2.9
Trade & tourism	1.5	2.1	2.6	1.7
Transp., commun., storage	1.8	2.6	3.6	2.4
Ownership of dwellings	1.2	1.7	1.6	1.1
Finance, insurance, etc.	0.6	0.8	0.9	0.6
Community & other services	0.3	0.4	0.5	0.3
TOTAL	67.5	96.7	145.1	97.6
Government				
Public administration	0.9	1.3	1.3	0.9
Education	0.5	0.7	1.0	0.7
Health	0.1	0.1	0.3	0.2
Defence	0.8	1.1	1.0	0.7
TOTAL	2.3	3.3	3.6	2.4
GDP	69.8	100.0	148.7	100.0

Source: calculated from MEED, 22 August 1975

provided by refining is falling as is the share of agriculture. Manufacturing industry has maintained the same share of GDP as in the past.

This is a fairly typical situation for a single product economy. "Vent for surplus" models (2), which seem to apply fairly well to the Saudi case, predict that when the situation on international markets makes it possible to exploit previously unexploited resources, "modern" imports of manufactured goods and food induced by increased export earnings will tend to wipe out the "traditional sector" of the economy in question. A considerable period will then elapse before local "modern" production achieves any significance - if it ever succeeds in doing so. Today, Saudi Arabia is passing through exactly this kind of transition period. She lacks a complex, integrated economic structure.

The other side of the coin to this lack of internal economic integration, is Saudi Arabia's almost total integration with the international economic system. This integration appears to be based primarily on the oil industry. Nonetheless, in reality, other sectors, such as finance, could be just as important.

The most obvious sympton of Saudi Arabia's integration with world markets is the simple fact that virtually all the oil and gas she produces is sold abroad. For the moment, domestic consumption is of negligible importance. We can obtain a clearer

idea of the situation by considering the figures for GNP. As has been argued by Cleron (3) "Gross national product, is, in Saudi Arabia, the most revealing indicator of the Kingdom's global, economic activity because of the numerous inter-relations that link the Saudi Arabian economy to the rest of the world". One should take GNP as being equal to the sum of GDP and the net flow of income in and out of the country. One then notes that in Saudi Arabia, GDP is very considerably higher than GNP, this being due to outward flows of profits earned by foreign companies and immigrants' remittances. In 1974, these outward profit flows (mainly from ARAMCO) amounted to 41 billion riyals, that is 41% of GDP for the year. Immigrants' remittances contributed a further 2.7 billion riyals (4).

In the medium-term, this situation is likely to continue. ARAMCO's profits will probably fall but this will be compensated for by increased profits earned by companies which are now only just beginning to invest. At the same time, immigrants' remittances are likely to continue at a high level.

One further factor of dependency is the high level of private and government financial and industrial investment abroad. This is already of considerable significance. In 1974, the revenues generated by SAMA investment already amounted to 4.8 billion riyals (this figure obviously did not include private investment earnings) and were expected to grow rapidly (5).

Saudi Arabia thus provides us with an example of a single product economy closely integrated within the international

economic system in terms of both trade and capital flows. In some ways then, Saudi Arabia is comparable to other countries which have been the object of intensive study by developmental economists. This does not mean, however, that the Saudi case is similar to that of Chile or Mauritania. The whole history and role of oil is different from that of other non-agricultural raw materials. Saudi Arabia's single product economy has won her wealth and power. She has even taken a seat on the IMF board of governors. This has not, however, removed the fragility implicit in the very concept of a single product economy. This is especially so if we take a longer-term view which takes into account the fact that oil is a non-renewable resource. Saudi Arabia needs a strategy for industrialization and it is this which we intend to examine below.

A move towards diversification

I believe that any discussion of Saudi economic modernization and diversification has to realize that these tendencies are already irreversible. The crises - even the minor crises - which have shaken Saudi Arabia at times, such as the one which followed recent events in Iran, have led to policies aimed at restoring and strengthening ancient custom and harsh, traditional orthodoxy. International public opinion's awareness of these spasms varies. Much attention was given to the execution of a princess for adultery in August 1977; much less to beatings imposed by the religious police, the Mutawa'iin. These, however,

are only spasms, even if some commentators would have us believe that the Saudi authorities could still restore traditional society, if only they wanted to. In reality, this apparent freedom of choice between tradition and modernization is no less limited than that between conservation and oil production. Within certain constraints, it is possible to repress pressures for a more modern way of life and for greater intellectual freedom, just as it would be possible to reduce the level of oil production. These restraints, however, are very tight. Given the scale of change in the Saudi economy and in Saudi society, the results obtained could hardly be very significant.

What is more, these pressures for change are less recent than is usually believed, and are due neither to "grand commis" such as Ahmed Zaki Yamani, Hishan Nazer or Ghazi Abdel Rahman al-Qusaibi, nor to King Feysal's westernizing, modernizing spirit and certainly not to the ineptitude and lasciviousness of King Saud. The real break with the past came under the refounder of the dynasty, Abdul Aziz Ibn Saud. This was well described by Harry St. John Philby in the introduction to his history of Ibn Saud's reign (6):

"In 1942, say, he was at the peak of his career and reputation; but some ten years earlier he had taken a characteristically unorthodox decision, which was now beginning to cast its shadows ahead. He had allowed the Americans to enter his domain in search of oil; the oil had been found; but its development had been arrested by the outbreak of war. Saudi Arabia

was back in the doldrums of penury, as the flow of pilgrims to Mecca had been discontinued simultaneously. Ibn Saud, who had kept his country going comfortably enough in the old days on an income of £100,000 a year, and had latterly become accustomed to an annual revenue of fifty times that amount, was in despair. Britain and America came forward with generous, even lavish, financial help during the remaining years of the war.... Then the oil began to flow in a satisfying trickle. The flood which ensued swept away every barrier of reason, religion and morality.

"The old king lived to see his gold transmuted into baser metal, but he was probably never quite aware of the full extent of the transformation of the society over which he had presided so long. In some measure, of course, he could not fail to realise the subtle changes at work on the younger generations of his family and people;.... But only he, as he knew full well, could check the incoming tide of laxity; and history will not acquit him of prime responsibility for the decline in manners and morals from the high standards prescribed and enforced during the first four decades of his reign."

It is possible to give a less severe and less conservative evaluation of Ibn Saud than that provided by Philby. Quite possibly no human being could have prevented oil from taking on a key role in Saudi Arabia. Circumstances led Ibn Saud to avoid any attempt to hinder the corruption of traditional society brought about by the emergence of this role. Nonetheless, even if he had tried to, he could only have delayed the inevitable

course of events. What it is interesting to note here is that during Ibn Saud's reign, a contrast emerged between the new wealth created by oil and prevailing values. This could only be resolved through a change in values, through social change and, thus, through a transformation of the economy. The irreversibility of this development lay in the fact that whereas it might have been possible to contain the amount of wealth available, it had become impossible to return to the old levels on which Saudi Arabia's traditional society and economy were based. If then, it were impossible to eliminate this new wealth, the only way to achieve a new equilibrium was through a long and difficult process of social and economic change.

Despite a gap during Saud's reign, the dynasty has accepted this challenge. Regardless of inevitable momentary spasms and recesses in policy, our analysis thus has to take this irreversibility of change as its starting point.

From an economic point of view, Saudi perceptions of the irreversibility of change have been translated into a programme to diversify today's single product economy.

Before it took on a relatively precise form with the second development plan (1975-80), this programme went through a long preparatory phase which corresponded to the reign of King Feysal. It should, in fact, be pointed out how important a role Feysal played in laying down the foundations and creating the organization necessary for Saudi Arabia's economic develop-

ment strategy, right from the time when he was Prime Minister to King Saud. It was Feysal who, in 1958, transformed his family budget into a state budget. Again, it was Feysal who created the country's economic administration, first through the setting up of the Committee for Economic Development in 1959, then through the transformation of this Committee into a Supreme Council for Planning in 1961, and, finally, in 1964, through the founding of the Central Planning Organization which is presently responsible for Saudi economic planning. The first two development plans (for 1971-75 and 1975-80 respectively) and, at an earlier stage, the ten point programme for social and economic reform, published in 1962, were the fruit of his continuous interest in the economic development of the country (7). Gradually, it became apparent that this strategy was centred on precise goals of diversification. These were listed in the second plan. During the long, initial preparatory phase, they were stated merely in general terms. In the second plan, however, the whole question of the diversification of the Saudi economy was treated very loudly indeed. At the same time, the plan gave a number of important "operational" targets which we will discuss later on in this paper. The plan puts the problem of diversification in the following terms (8):

"The above projects do not indicate any near-term change in the basic structure of the Kingdom's economy. The importance of oil is over-riding and will continue into the forseeable

future. Domestically-based, energy-intensive industries will further enhance oil's role in the economy. The long-term objective of diversification of the sources of national income and reduced dependence on oil is, therefore, somewhat paradoxical, because oil revenues are the means through which the Government finances the Kingdom's economic and social development programmes - the principal means to diversification.

"Thus, the speed with which diversification can be pursued is dependent on the extent and rapidity the Government achieves in exploiting its oil resources. The more successful the exploitation, the larger oil's share of GDP. The important criterion to use in assessing the economy's diversification efforts over the next several years is not oil's share of GDP, but whether or not consistent real growth is taking place in the other sectors."

This passage gives us a very clear indication of the paradox implicit in the strategy chosen. Any <u>reduction</u> in the relative importance of oil in the Saudi economy in the forseeable - but certainly not in the near - future, implies increased oil production and thus an <u>increase</u> in its relative importance today. Here, I do not so much want to discuss this paradox as to look at its results in the immediate future, that is the decision as to whether or not to maintain a high level of oil production so as to finance the highest possible rate of diversification.

What level of production?

At what level should production and expenditure be fixed? The answer would seem to be that the optimal level of production would be such as to generate a flow of revenue adequate to put development plans into practice. Given that this level of production - for which different values could be given - is nonetheless almost undoubtedly lower than that necessary to satisfy world demand for oil, even if energy consumption were contained, this kind of answer has created allarm and concern and has led many observers to turn their attention to the conditions in which Saudi Arabia might find it in her interest to invest her financial surplus: a stable dollar, the efficient working of xeno-currency markets, access to industrial investment in the Western countries, etc. The following is a typical way of approaching the problem (9):

"Oil production, even at current levels, generates revenue in quantities that Saudi Arabia cannot utilize effectively domestically, resulting in huge financial surplusses... The Saudis have repeatedly stated that their willingness to produce at high levels is in the form of a sacrifice to them - in terms of income lost by producing currently oil that will appreciate in value if left in the ground for future exploitation. The implication is that their continued willingness to make the "sacrifice" depends on the degree to which the industrialized countries recognize that this is a "two-way street", i.e., that they must reciprocate.

"The Saudis have repeatedly linked their willingness to produce at levels adequate to meet world oil import demand to Western and Japanese assistance in their domestic industrialization efforts. Moreover, the Saudis have stated that their continued willingness to generate surplus revenue is dependent on the willingness of the industrialized countries to provide investment opportunities guaranteed against the effect of inflation and changes in currency values."

My own view is that if present levels of production are higher than those necessary to finance Saudi development plans, this is due not so much to any Saudi willingness to sacrifice themselves, but rather to the fact that the Saudis view their interests differently than is commonly believed.

Normally, Saudi Arabia is seen as having to chose, for any given level of wealth, between a certain level of oil reserves and a certain stock of fixed capital. The cost of maintaining a given level of reserves is measured by the opportunity cost in terms of fixed capital investment. The whole plan is based on this trade-off, which is stated in the terms above, for the plan gives priority to industrialization and diversification which is seen as being limited exclusively by the absorptive capacity of the economy. The purchase of financial assets is seen as being a subsidiary option. Publicly, these purchases are justified in terms of the desire to meet Western demand for oil and thus to favour the stability and strength

of the West against Communism. The plan contains no real investment strategy. Detailed decisions are taken at the highest level, probably in an inter-ministerial committee, chaired by Prince Fahd. (This was set up in 1973, shortly after the death of King Feysal, with the aim of formulating Saudi foreign investment policy.) It would seem as if the purchase of financial assets and other investment abroad aims at obtaining a reasonable balance between accumulated investment revenue and the increased future income which could be earned by leaving the oil underground.

There can be no doubt that those responsible for the running of the Saudi economy are facing up to these questions and that in some way, they are trying to resolve them. Nonetheless, the difficult conditions in which Saudi policy makers operate, which are made fairly clear in the passage from the plan quoted above, lead one to suppose that they have taken account of another possible - if rather more delicate - policy option, namely the possibility of insuring against the risk that diversification and industrialization could fail. The purchase of financial assets has the function of protecting the Saudis from this risk. Given the possibility of creating a given quantity of wealth through a mix of financial and fixed capital stocks of both investment, the final decision is governed by the risks involved. If this is so, it should be emphasized that the maintenance of a financial surplus represents not so much a politically motivated "sacrifice" as a strategic necessity, which renders a high level of expenditure and production in-

evitable. This level of expenditure and production is in fact much higher than that indicated in Saudi development plans or by the absorptive capacity of the domestic economy. Only with great difficulty could it be reduced.

Industrialization to take advantage of factor endowment

So far, we have concentrated on the fact that history has, in one sense, forced Saudi Arabia to diversify her economy and that Saudi expenditure, whatever level it attains, will nearly always be higher than that required in order simply to diversify the economy.

The question of the scale of Saudi expenditure is perhaps of more importance to those concerned with the question of access to oil than to us here. From our point of view, however, it is still important to know the level of expenditure so as to measure the intensity of the diversification effort. Studies by Professor Wells and by Al Bashir on Saudi expenditure, as well as somewhat rare press reports on the results achieved by the second plan, suggest that despite recent restrictions aimed at fighting inflation, the basic option taken by Saudi policy-makers is for massive expenditure and thus for a sustained diversification effort (10). What interests here, is to look at this diversification effort rather more closely. Where is it planned to invest? What are to be the general guidelines for this diversification of the economy?

Although some observers have considered the second five year plan to be relatively unsophisticated, it does lay down a strategy for economic diversification and fixes a number of significant priorities. In my view, the plan establishes three fundamental objectives:

- the development of the labour force and the all-round improvement of the quality of Saudi Arabia's human capital. This is intended to enable Saudi staff to fill all the most important posts in the economy and thus to minimize immigration extending the labour market to cover sectors of the population which, for essentially social reasons, are today either un- or under-employed (e.g. women);

- the development of basic industry using oil and natural gas both as a feedstock (for refining, petrochemicals and secondary chemistry) and as a source of energy (in energy-intensive industries such as steel and aluminium). Given that this specialization is dictated primarily by natural factor endowments, production would be essentially for export. Plants would be extremely capital-intensive, particularly given Saudi reliance on labour availability;

- the achievement of improved internal economic integration through an appropriate geographical distribution of different productive activities: according to the plan, these are to be five major economic regions (these do not correspond to the "districts" used by the administration).

Extractive industry, other than oil, (e.g. phosphates in the North, close to Jordan) and agriculture, (mainly in the Asir) are to be concentrated in the North and the South-West. Heavy industry is to be expanded primarily on the Gulf and the Red Sea coasts, that is in the East and West of the country, where there are to be two main development poles: Jubail and Yenbu. The central region will act not only as the administrative centre of the country, but also as the main zone for for the expansion of light industry. It should be noted that the two industrial regions will be linked through an oil and a gas pipeline. The former will carry oil from wells situated in the Eastern province to the West coast where no oil has been found as yet. The gas pipeline, on the other hand, will act as the final link in a chain of plant designed to exploit the natural gas associated with oil deposits. This gas will be used as an energy input for locations situated along the pipeline and as a feedstock for the production of liquid gas at the pipeline terminal. The importance of these two pipelines lies not only in their contribution to improving the regional balance of economic activity within Saudi Arabia, but also in the alternative outlet to the Gulf which they provide for Saudi oil and gas. They are thus of strategic as well as of economic importance.

One should add a word, at this point, concerning the specific plant which it is planned to set up in the basic industrial sector. Perhaps the most important project is the plan

to build up a complex for the collection and processing of natural gas. This complex will be capable of handling from 3.5 to 4.0 billion cubic feet of cas per day. The contract for the plant was awarded to ARAMCO in 1975, at the beginning of the Second Plan, the target being a production capacity of 1.6 billion cubic feet per day by 1980. Although the cost of the project has risen steeply (press reports refer to an increase from $4.6 billion to $16 billion (11)) and despite delays, the project is going ahead. The complex includes three centres for the production of natural gas liquids (NGL) at Berri, Shegdum and Uthmaniya. The output from these centres will then feed two gas crackers, one at Juaymah on the Eastern coast (to the South ofJubail) and one at Yenbu (on the Western coast). As was stated earlier, the complex will produce energy inputs as well as feedstock for liquifaction. Thus the Berri-Juaymah complex will not only extract ethane, but will also provide methane for the Jubail industrial complex.

The Berri centre was opened in October 1977, and has a full capacity of one billion c.f.d. According to press reports, (12) it is presently processing 600 million c.f.d. of feedstock to produce 380 million cubic feet of dry gas and 65,000 b.d. of raw NGL. The Shegdum plant is expected to become operational at the beginning of 1980 with a productive capacity of 1.4 billion c.f.d. The third centre, on the other hand, seems to be somewhat behind schedule. As far as the two cracking plants are concerned, Juaymah is expected to go operational at the beginning

of 1980, with an initial processing capacity of 397,000 b.d. of raw NGL, used to produce 195,000 c.f.d. of ethane, 156,000 b.d. of propane, 73,000 b.d. of butane and 58,000 b.d. of natural gasoline. The similar plant at Yenbu needs more time for completion. In any case, the 300,000 b.d. pipeline across the peninsula is scheduled for completion only in January 1981. If it is assumed that propane, butane and natural gasoline will all be exported from terminals linked to the two cracking plants (whereas the ethane produced will be used as a feedstock for the local petrochemical industry) and that everything goes according to plan, it is possible to forecast that by 1985 Saudi Arabia will be exporting 650,000 b.d. of LPG and will thus be the world's largest industrial exporter.

As regards oil-refining, the plan provides for the setting up of three export refineries: two in the Eastern province and one on the Western coast. The plant on the Western coast, at Yenbu, will be fed from a transpeninsular pipeline running from the oil field at Ghawar. This is due for completion at the end of 1980. The refinery will have a capacity of 250,000 b.d. and is expected to be operational by around 1985. Of the two plants planned for the Eastern coast, one - at Jubail - is expected to start work in 1983 with a capacity of 250,000 b.d. Both these plants are presently at the engineering design stage. One should recall, at this point, that a number of refineries are also planned to meet domestic requirements at: Jeddah (this refinery is being expanded from its present capacity of 95,000 b.d. to a capacity of maybe

240,000 b.d. by 1980), Riyadh (now being expanded from 20,000 b.d. to 120,000 b.d. by 1980) and Yenbu (170,000 b.d. refinery in construction). One should also consider the 450,000 b.d. ARAMCO export refinery at Ras Tanura. Other refineries are being built for the production of lubrificants. A 30,000 b.d. plant was opened in Jeddah in March 1978. A much larger plant at Jubail with a capacity of 120,000 b.d. should be ready by 1982-83.

The plan also provides for the setting up of four petrochemical complexes on the East coast. Three of these should be completed by 1980. A further complex on the West coast is also provided for, though here, the plan is rather behind schedule. The period it covers has been taken up by design and above all by negotiations with contractors. To begin with the projects were design work has made the most progress, one should refer to the plant at Jubail (a joint venture by Pecten, U.S. Shell and SABIC) which will eventually have a capacity of 650,000 t/y of ethylene and 295,000 t/y of styrene, as well as producing ethyl benzine and ethylene dichloride. This plant will provide feedstock for a further plant, also situated at Jubail which is designed to produce 240,000 t/y of low-density polyethylene (LDPE) (this plant is an Exxon/SABIC joint venture). The polyethylene plant is planned to be operational by 1983-84. At Yenbu, there are plans for a Mobil-SABIC plant, to be operational by 1983-84. This will eventually produce 450,000 t/y of ethylene,

200,000 t/y of LDPE, 160,000 t/y of ethylene glycol and 420,000 t/y of styrene monomer.

For all the plants mentioned above, the Saudis have signed contracts with foreign partners. Through these agreements, they aim to guarantee themselves sales outlets, as well as ensuring the technical and economic efficiency of the new plant. The Saudis' partners, on the other hand, aim to guarantee themselves regular supplies of oil. These agreements proved very difficult to negotiate. It could perhaps be said that the second plan was more use as training in the negotiation of joint ventures than for the actual number of plants built. There are, however, signs that this training period is now over and that new plants are actually beginning to come into being. The projects referred to below are, however, for the moment, still under negotiation, though at times negotiations have gone hand in hand with feasibility studies. Negotiations are thus in progress for two methanol plants at Jubail (one 600,000 t/y plant to be built by SABIC/Mitsubishi/Itoh/Grace; a second 660,000 t/y plant to be built by SABIC/Celanese/Texas Eastern), for two ethylene plants, again at Jubail (one 400,000 t/y plant to be built by SABIC/Dow Chemical for which feasibility studies should now have been completed and one 200,000 t/y SABIC/Mitsubishi plant for which, however, negotiations are a long way behind schedule).

Another of the plan's provisions is for the building of four new fertilizer plants. One of these at Jubail, presently

being negotiated with the Taiwan Fertilizer Company will have a capacity of 500,000 t/y of urea.

In these fields then, although the plan is behind schedule, there has been no significant retreat from the targets it set, as has occurred in other Arab countries on the Gulf. The continuity in Saudi policy is shown by massive work on infrastructures, especially in Yenbu and Jubail. Work in these two development poles is supervized by a special inter-ministerial committee: the Royal Commission for Jubail and Yenbu.

The plan's provisions for the metal industries have, on the other hand, been subjected to re-examination. The plan provided for the building of a 210,000 t/y aluminium smelter and a 3.5 million t/y steel works on the West coast. Both of these were to produce for export. As far as aluminium is concerned, although official sources state that it is still planned to build the smelter, nothing more has been heard of the project - except for a 5,000 t/y aluminium extrusion plant designed to meet domestic requirements. On the other hand, SABIC's vice-chairman, Abdel Aziz al-Zamil stated in 1978 that it was necessary to avoid the duplication of existing capacity (13). This year, he informed the public that SABIC had purchased a 20% share in the new aluminium smelter in Bahrain (Alba) (14). This would suggest that the Saudi project has been postponed indefinitely.

With respect to steel, while there is talk of expanding the Jeddah rolling mill from its present capacity of 10,000 t/y to 140,000 t/y thus making it into a capital-intensive plant, the only real novelty of 1979 has been the contract signed with Korf Stahl for a 850,000 t/y steel reduction plant. The steel produced will be absorbed by the domestic market. As can be seen, this implies a considerable reduction in the target set by the plan, which, as was stated earlier, was meant for export.

Differing views have been taken by commentators of the objectives of the Saudi plan, whose main strategic features I have tried to describe here. Writers on the subject - and especially British commentators - have continued to express strong doubts concerning Saudi policy options. Much emphasis has been given to administrative infrastructural and climatic restraints which lead to grossly increased costs and help to feed inflation. One example is the cost of the natural gas collection and processing system which, as we have seen, is turning out to be triple the planned figure (16 as opposed to 4.6 billion dollars). There has been particular insistence on the extremely poor prospects on world petrochemical markets, the assumption being that demand for petrolium products has been saturated (15). In particular, these observers argue that prospects for outlets in Western Europe, usually believed - as we have seen during the Euro-Arab dialogue - to be the most

important market for Saudi petroleum products, are poor. If this were so, the consequences for Saudi Arabia would be extremely serious for it would imply not so much an obstacle in the way of Saudi development strategy, as a danger to its very survival. Many of these criticisms were answered by al-Qusaibi, the Minister of Industry, in a tough speech at the King Abdel Aziz University on March 22, 1978. This speech represented a clear statement of Saudi industrial development policy. (16)

In reality, it would be possible to take an even more radical approach to Saudi economic development options than that taken by British writers on the subject. One could, for example, discuss whether it might not be preferable to base the plan on a better balance between the different sectors and, in particular, whether a greater role might be assigned to agriculture. One might also question the plan's present efficiency-based approach and suggest a larger scale use of subsidies. Finally, one could legitimately ask whether excessive freedom has not been accorded to foreign corporations.

I personally believe that it is necessary to improve the balance between the different sectors of the economy. In particular, it would seem to be important to intervene in agriculture so as to guide the transition from pastoral to fixed settlement farming, and to exert better control over the urbanization of those who are gradually expelled from the primary sector. It is obvious that Saudi Arabia is not a country with

an agricultural vocation. Nevertheless, where an adequate ecological balance has been maintained or re-established - as in the military "colonies" (hijras), set up by Ibn Saud from 1912 onwards, or in the Kharj or Hasa oaeses, the potential for agricultural development has proved to be very high indeed (17). At the same time, this effort has to be increased, at least in part, as a response to the difficulties caused by the settling of the nomads. (18) Settlement was begun by Ibn Saud as a consciously worked-out policy. Since his time, however, the process has accelerated out of control due to developments such as the introduction of water pumps, which has ruined the market for dromedaries and become an unbalancing factor in the local economy. Many ex-nomads have continued as shepherds but have settled down in locations where the government has provided a number of elementary facilities (wells, etc.), the result being that their animals destroy the pasture available locally. Only a very few ex-nomads are employed in industry. If it is assumed that the prime objective of Saudi development strategy is to encourage capital intensive industry and that the wealth invested in livestock is out of proportion to the natural resources available as feed then it becomes apparent that fixed settlement farming could provide an alternative to the present situation, making it possible to achieve an improved social as well as an improved economic equilibrium.

The Third Plan seems to accord a higher priority than previously to agriculture - as well as to light manufacturing industry. This kind of course correction does not, however, imply

any fundamental change in Saudi development strategy, which, in my opinion, appears to be substantially correct, so long of course as we exclude incredible ideas, such as closing down the oil-wells and returning to a traditional model of society. It is impossible to ignore the shear quantity of oil which Saudi Arabia possesses. The idea of translating oil earnings into industrial development is, in fact, perfectly practical. Undoubtedly, the constraints on industrial development are less tight than those affecting the development of other sectors, such as agriculture. The only alternative would be to give priority to trade and to the service sector. As Prof. Wells has put it: "At one extreme, Saudi Arabia could have chosen to rely upon crude oil and income from the government's foreign investment to subsidize imports of consumer goods. Economic activity, in this case, would have been concentrated in the trade and service sectors" (19). This, however, would tie the future of the country to exports of oil which is a non-renewable resource. Industry, on the other hand, once it has been set up, can become a permanent source of income.

If then, industrialization is the only road open to the Saudis, their decision to concentrate on oil-based industry, in which the aim is both to use oil as a source of energy and a feedstock and to increase locally generated value added is equally inevitable. What is more, if this is so, then the emphasis on collaboration with foreign companies and on competitivity is fully justified. As far as foreign companies are con-

cerned, their participation in development projects not only provides an implicit guarantee of the latters' economic viability, but also ensures access for a late comer to a market with extremely high barriers to entry. Al-Qusaibi made this very clear in the speech referred to earlier: "We lack experience in industry. We cannot obtain complex technological processes on our own. Alone, we cannot penetrate the markets. This is the reason we insist that all our industrial projects should be in partnership with the appropriate international companies... We insist that our partners should share in the success or failure of a project". As far as regards competitivity (20), this is essential. The necessary scale of Saudi production is such that its only sales outlets are going to be abroad, at least so long as the economy is as unbalanced as it is today.

In reality, it seems impossible to criticize the basic priorities and strategy of Saudi development planning. Given the nature of the present situation, it might be possible to readjust certain aspects of policy, but there is no alternative to its main options. Certainly more attention should be paid to agriculture; nevertheless, the natural constraints on agricultural development, on the one hand, and the dominance of the oil sector on the other, mean that even though the allocation of a greater proportion of available resources to agriculture - and to other sectors - might help to balance the development plan and improve

resource utilization, this would not imply any change in basic Saudi strategy.

This does not mean that this strategy is a satisfactory one. It gives no indication of how the transition is to be achieved from a single product to a complex, integrated economy. Saudi Arabia's development strategy is based on the maintenance of the dominant role of oil-based industry for a long time into the future. It makes no provision for the expansion of other sectors capable of using the outputs from, or generating new inputs for the petrochemical and chemical industries. Saudi strategy makes no provision for the creation of "intersecting chains of sectors", for the building of linkages capable of forming a "coherent structure". In other words, Saudi Arabia's single product economy, which was our starting point in this paper, is an economy which is no more than just a segment of the international economy without any significant degree of internal inter-sectorial integration, will remain just that: a single product economy - even if there is an increase in locally-generated value-added.

Anyone concerned with development problems will recognize my use here of the key-words employed by Algerian planners. The Algerians, in fact, have made an ideology out of the problem of economic integration, emphasizing the need for a national inward-looking policy.

In reality, this problem is not exclusive to Saudi Arabia; it faces any underdeveloped, un-integrated economy which is attempting the transition to development, diversification and integration. One of the key factors in this transition is the need to invest in many different sectors simultaneously. Rosenstein Rodan has emphasized that this is necessary in order that the "new producers should become consumers of each others' products thus creating a new market and confirming Say's law. The complementarity of demand reduces the risk of not finding a market outlet" (21). In more sophisticated terms, Perroux has described the "noircissement" (filling in) of the empty cases in the industrial matrix. His theories, transmitted through the Grenoble school, have come to constitute the basis and the ideology for Algerian planning. Our aim here, however, is to show the specific nature of the Saudi Arabian case. Both Rosenstein Rodan and the Algerians were concerned with situations in which labour was abundant and in which there were both open and hidden unemployment. The Algerians are able to plan to fill in the empty cases in their economic matrix because they have a labour force and an internal market (regardless of the success or otherwise of their plans). Saudi Arabia, on the other hand, cannot count on her own domestic market. If she is to diversify, she is going to have to rely on foreign markets. This forces new Saudi industry to be efficient and profitable (though this is of greater benefit to the international economy than to Saudi Arabia directly). What it does not do is resolve the problem of how to imporove the <u>internal</u>

integration of the Saudi economy. As we have already said, this remains a single product economy - even if it is a rich single product economy - integrated within the international economic system, but lacking in any significant degree of internal integration.

In short, Saudi Arabia's ambitious diversification programme is limited by one very important constraint: the lack of a domestic market forces the country to develop just one export-orientated, capital-intensive sector - the petrochemical industry. In other words, the one sector of the Saudi economy which is most highly integrated within the international economy is diversified but not the Saudi economy as a whole, whose structure remains that of a single product economy regardless of the increase in the number of products actually produced.

The second limiting factor is time. It is possible to argue that in the medium to long run, new industries tied to the oil industry, will eventually develop. The problem, however, is not simply waiting for this to occur. The fact is that an oil sector as large as Saudi Arabia's exerts a massive polarizing effect and makes it much more difficult than it would otherwise have been for new industries to emerge on a significant scale. If other sectors do not achieve simultaneous growth <u>alongside</u> the oil industry, it will become even harder for them to do so in the future.

This is really the main argument in favour of Saudi Arabia deciding to pursue a course of regional integration. If the country is to diversify its economy in time, it is going to have to join its forces - and resources - to those of other economies in the region. Here it is necessary to emphasize two points. First, the Saudi oil sector, both up-stream and down-stream, is going to continue to play an enormously important role. Saudi Arabia will thus continue to be strongly integrated within the international economy. Regional integration could, however, act as a useful corrective to this purely international integration. Secondly, in Saudi Arabia's case regional integration would not have the immediate aim of filling in or enriching her own industrial matrix. Rather, the aim would be to use her own cases alongside the often equally scattered cases belonging to the other countries in the region, to create a <u>regional</u> - and no longer merely a Saudi, a Sudanese or an Egyptian - matrix which could then be filled in adequately. This point is very important because it distinguishes the problems and potential of regional integration between developing countries from those to be found in the industrialized world. In the developing countries, regional integration can be a means to create a degree of economic diversification sufficient to set up an initial self-propelled dynamic of supply and demand. In the industrialized countries, on the other hand, regional integration is a means to improve the efficiency of a diversified system which already exists. Obviously, this destination poses very serious political problems.

Integration between less developed countries requires greater cohesion and solidarity than elsewhere. Here, it is men, with their decisions, rather than the market, who allocate resources. In the past, this has led to a number of failures. From this point of view, the problems facing Saudi Arabia and her neighbours are far from being easy to resolve, even if these countries could, potentially, form an economically integrated area. One fundamental problem will be fairness in the allocation of resources and benefits. This indeed is always the most delicate problem in schemes for integration between developing countries.

NOTES

(1) On Saudi Arabia's "one crop economy" nature, see Knauerhase, Ramon , Saudi Arabia's Economy at the Beginning of the 1970s, in "Middle East Journal", 28, 2, 1974, pp. 126-140.
Asfour, Edmund Y., Prospects and Problems of Economic Development of Saudi Arabia, Kuwait and the Gulf, in Cooper, C.A., Alexander S.S. (eds.), Economic Development and Population Growth in the Middle East, American Elsevier, New York, 1972, pp. 369-381, speaks of a "dual economy".

(2) See Wilson, Rodney, Trade and Investment in the Middle East, MacMillan, London, 1977, p. 1

(3) See Cleron, Jean Paul, Saudi Arabia 2000. A Strategy for Growth, Croom Helm, London, 1978, p. 70

(4) Ibidem, p. 77

(5) Ibidem, p. 78

(6) Saudi Arabia, Benn, London, 1955

(7) See Sayigh, Yusif, A., The Economics of the Arab World, Chapter 4: Saudi Arabia, Croom Helm, London, 1978, pp. 127-185.
Long, David, E., Saudi Arabia, The Washington Papers, 39, Sage Publications, London, Beverly Hills, 1976, p. 25

(8) Central Planning Organization, Development Plan 1975-1980, p.78

(9) Gold, Fern R., Conant, Melvin A., Access to Oil. The United States' Relationships with Saudi Arabia and Iran, Committee on Energy and Natural Resources, Publication 95-70, U.S. Government Printing Office, Washington D.C., December 1977, pp. 41-42.
See also Bedore, J.M., Saudi Arabia in a Changing World, "National Westminster Bank Quarterly Review", February 1978, pp. 13-23

(10) Wells, Donald A., Saudi Arabian Revenues and Expenditures: The Potential for Foreign Exchange Savings, Washington D.C., Resources for the Future, 1974.
Al-Bashir, Feisal, An Econometric Model of the Saudi Arabian Economy: 1960-1970, Ph.D. dissertation, University of Arizona 1973

(11) Turner, L., Petrochemicals, Refining and Gas Exports. Problems with Costs and Marketing, in Middle East Annual Review 1978, (MEAR), p. 87

(12) Middle East Economic Digest (MEED), Saudi Arabia, Special Report June 1979, p. 21

(13) MEED, Saudi Arabia, Special Report, August 1978, p. 14

(14) MEED, Saudi Arabia, Special Report, 1979, p. 24

(15) Turner L., op. cit.
See also Capper, John, Petrochemicals: The Uncertain Outlook, "National Westminster Bank Quarterly Review", November 1978, pp. 63-71

(16) MEED, Saudi Arabia, Special Report, 1978, p. 13

(17) Long, David E., op. cit. pp. 47-48

(18) Beaumont, P., Blake, G.H., Wagstaff, J.M., The Middle East. A Geographical Study, John Wiley & Sons, London 1976, pp.319-20

(19) Wells, Donald A., Saudi Arabian Development Strategy, American Enterprise Institute for Public Policy Research, Washington D.C. 1976, p. 73

(20) It is worth noting that this competitivity does not necessarily depend exclusively on market forces. It may be the result of plants subsidizing in the form of low and/or zero-priced supplies of oil.

(21) Rosenstein-Roden, Paul, Problemsof Industrialization of Eastern and Southeastern Europe, "Economic Journal", June-September 1943, pp. 202-211