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Looney, R.E.

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Robert E. Looney and P.C. Frederiksen

Introduction

Almost fifteen years ago the Saudi Arabian Monetary Agency quoted the Qur'an in its annual report: "Verily, never will God change the condition of a people until they change it themselves." Throughout the first four Saudi Arabian development plans (1970–1990) themes of change and responsive participation have dominated the Kingdom's development philosophy: "strategic priority to structural change rather than to growth" and "the spontaneous response from society . . . to the opportunities offered by development."[1]

In March 1985 the Fourth Development Plan (1985–1990) went into effect. At the time, King Fahd noted that:

> Fortunately, the changes in the oil market have occurred at a time when we have completed most of our major projects, while the rest are about to be completed, which will help us in bettering the quality of our output, which in turn will bring prosperity to the citizens . . . What is going on in the oil market is practical evidence of the wise targets which have been determined by all of us in the development plans, in addition to the wise policies which we have followed in carrying out the economic and social goals.[2]

1. Howard Bowen-Jones, "The Third Saudi Arabian Five-Year Plan," *The Arab Gulf Journal* (October 1981), p. 55.
2. *Saudi Report* (April 1, 1985), p. 4.

Drs. Robert E. Looney and P.C. Frederiksen are Associate Professors of Economics, National Security Affairs, and Defense Resources Management Education Center, respectively, Naval Postgraduate School, Monterey, California.

Since the first Plan was introduced in 1970, the government has followed an overall policy to increase output so as to sustain the growth of employment and increase standards of living but at levels which will not create serious dislocation or social instability in the country. The Plans have outlined multifaceted approaches to the many problems endemic to a developing country. The focus has been to expand the national resource endowments of the country, to rectify shortages, and to spread the benefits growth throughout the economy. The recent economic growth in Saudi Arabia is undoubtedly due in a major way to successful government planning and subsequent intervention.

The completion of the Third Plan in early 1985 and the initiation of an ambitious Fourth Plan in the wake of declining oil revenues and weakening OPEC solidarity is evidence that Saudi Arabia has reached a possible water-shed in its development efforts. This paper reviews the evolution of Saudi planning since 1970 and evaluates the country's unique approach to economic development.

The Introduction of Economic Planning

The public and private sectors each have separate but significant roles in the Saudi Arabian economy. Inasmuch, devlopment planning has been termed "perspective" for the former but only "indicative" for the latter.[3] State planning has encouraged the growth of both sectors by allocating oil revenues to direct public domestic investment and by pointing the way for private investment. The government has thus become a traditional entrepreneur; undertaking acitivites unattractive to the private sector for reasons such as large capital entry requirements. At the same time, the Plans have been supplemented by a variety of orthodox policy instruments (such as tax incentives and subsidies) to encourage as much private activity as possible.

While informal economic planning had begun in the 1950's, it was King Faisal's foresight[4] and persuasion which introduced economic planning. An initial planning apparatus had been established in 1958 and formal planning began a year later when the Prime Minister expanded the economic development committee. In 1961 this committee was replaced by the Supreme Planning Board which designed a development policy in cooperation with various ministries. In 1965 this board was replaced by the Central Planning Organization (CPO) whose leader had close contact with the King.[5]

While economic policy prior to King Faisal had been primarily short run in nature, under his rule it was understood to cover the entire economic process over the long run. At the time, development policy objectives in Saudi Arabia were to maintain religious and moral values, to raise the living standards of the people, to provide national security, and to maintain economic and social stability. This was to be accomplished by increases in the growth of Gross Domestic Product (GDP), the development of human resources, the diversification of the economic base, and a reduction in the dependence on oil revenues.[6] These objectives and means have not fundamentally changed since then. To carry the objectives out, the functions of the CPO (as defined in the Council of Ministers Resolution 430) were to: write periodic economic reports, formulate economic and social development plans, estimate needed overall resources, aid other ministries, supply the King with technical advice, help establish planning units in other ministries, and monitor and report on planned projects to the Council Ministers.[7]

In the early 1970s, the CPO consisted of four departments: Planning, Research, Follow-Up, and General Administration.[8] On October 13, 1975, by Royal Order No. A-326, the CPO was elevated to the Ministry of Planning. By then, the country was prepared to efficiently assimilate the vast increase in oil revenues.

The First Development Plan: 1970–1975

In 1970, the CPO introduced the First Five Year Plan.[9] The targets of the plan, while perhaps modest by present standards, were to

3. For a description of this general type of economic system see Jahangir Amuzegar, *Comparative Economics: National Priorities, Policies and Performance* (Cambridge, Mass.: Winthrop Publishers, 1981), Ch. 4.

4. A fascinating account of King Faisal's insights into the country's development process is given in Savad Abdul-Salam Al-Farsy, "King Faisal and the First Five Year Development Plan," in Willard A. Beling, ed., *King Faisal and the Modernization of Saudi Arabia* (Boulder, Co.: Westview Press, 1980), pp. 58-71.

5. Yusif A. Sayiah, *The Economics of the Arab World* (New York: St. Martin's Press, 1978), pp. 177-78.

6. *Ibid.*

7. Ramon Knaverhase, *The Saudi Arabian Economy* (New York: Praeger Publishers, 1975), pp. 316-20.

8. *Ibid.*

9. See Central Planning Organization, *Development Plan, 1390 A.H.* (Riyadh, Saudi Arabia: Central Planning Organization).

increase GDP and the available human resources so that the citizens would be able to contribute more efficiently to production and participate fully in economic development. The plan emphasized the diversification of economic resources to prepare for the time when oil reserves became depleted. Revenue projections ranged from $8.12 billion to $9.0 billion.[10] Total outlays were estimated to be $9.94 billion—$5.5 billion for recurrent outlays and $4.44 billion for projects. Real GDP was estimated to grow at an average annual rate of 9.8 percent.

Actual revenues and expenditures were approximately $43.4 and $20.79 billion, respectively. Initially, the additional revenues were not incorporated directly into the domestic budget but adjustments to the budget have been made since then. The spending pattern adopted by the government for the surplus oil revenues was similar to that of an individual following a large windfall gain.[11] The large price and revenue increases and the close knit family nature of the government suggests that an analysis similar to that for an individual can explain the government's behavior: individual estate planning rather than an adjustment to the consumption pattern.

To be sure, without the existing planning framework, much of the new found wealth would have been spent on dubious consumption and investment items. The existence of a long-run planning apparatus allowed the government to rank the many new alternatives. In developing a long run strategy to allocate surplus revenues, four broad options were open to Saudi Arabian planners.[12]

The first was to invest in foreign assets. While lucrative in terms of potential return, the magnitude of the surplus could have led to an inflation of foreign assets. The prospect of a dollar devaluation, restrictions by Western governments on the type and amount of foreign assets purchased, and the potential confiscation of the investments, represented a real threat to this option. The purchase of foreign assets was also seen as an inefficient way to deal with the

10. The average (1970-75) rate of exchange of US$1 = SR 4.16 was used. Calculated from International Monetary Fund, *International Financial Statistics Yearbook: 1984* (Washington: International Monetary Fund, 1984).

11. Cf. Milton Friedman, *A Theory of the Consumption Function* (Princeton: National Bureau of Economic Research, 1958), and F. Modigliani, "The Life-Cycle Hypothesis of Saving, The Demand for Wealth and the Supply of Capital," *Social Research* (Summer 1966), pp. 160-217.

12. *Ibid.*

existing level of development and the problems associated with longer term development. While investments in foreign assets are relatively safe, some planners predicted results similar to a policy of economic imperialism—domestic resources exploited and earnings invested overseas. The portion of the surplus invested in foreign assets became based both on the magnitude of the surplus and on the opportunity cost of the domestic options forgone.

The second option was to provide massive amounts of unilateral or multilateral aid and/or soft loans. This option was difficult to defend given the primitive state of the donor country and the lack of managerial skill necessary to manage such a program.[13] The third option was to increase government services—an attractive alternative to many who viewed it as the best way to redistribute income and raise living standards. The major problem however was the anticipated inflation in wages, real property values, rents, and locally produced raw materials. Also the government had rejected on philosophical and religious grounds that it become an employer of last resort or develop a Kuwaiti-style welfare state. This would reduce productivity in the public sector and limit entrepreneurial incentives—ultimately damaging long term development prospects.

The final option for the government was to expand the physical stock of domestic capital on a massive scale. Domestic investment—as theory would suggest—would be the causal factor to initiate and sustain rapid growth. Unfortunately little attention[14] had been given to situations such as Saudi Arabia where capital was abundant relative to labor. Most economic models at this time implied that self-sustaining growth could be attained by merely implementing an appropriate investment policy.[15]

Generally there are two types of capital investment for development: social overhead capital (investment in non-direct facilities such as schools, hospitals, etc.) and directly productive capital (investment in direct support facilities such as transportation, communications, utilities, etc.). These types of investment were viewed

13. Hossein Askari and John Cummings, *Oil, OECD and the Third World: A Vicious Triangle?* (Austin, TX: Center for Middle East Studies, 1978), Appendix II.

14. Jahangir Amuzegar, "Atypical Backwardness and Investment Criteria," *Economica Internazionale* (August 1960).

15. Hollis Chenery, "The Application of Investment Criteria," *Quarterly Journal of Economics* (February 1953), p. 78.

by most economists inside and outside Saudi Arabia as suitable to create conditions necessary for direct private investment to flourish.[16]

Much discussion surrounding investment strategy centered on the respective merits of balanced versus unbalanced growth. Advocates of the former strategy favored a policy of simultaneous investment in a large number of projects. Advocates of the latter suggested investment in only certain strategic sectors (particularly those having strong forward and backward linkages) and the sequencing of domestic investments over several decades. The most tempting option was to devote the great bulk of revenues into social overhead type projects. Although large sums of capital were exported and the government expanded its consumption, the policy adopted was one of unbalanced growth through social overhead capital. The projects were attractive to the authorities: they used imported labor, raw materials and management, and in addition were highly visible and thus raised the prestige of the state.

This option had its own limitations however. Investments in social overhead capital did not guarantee long term growth. Development of excess capacity may not automatically induce investment in directly productive activities—especially in an economy with few entrepreneurs. A more fundamental criticism is that the investment program was not based on economic criteria but to create a modern Islamic state. Syrians and Egyptians have pointed out that from an economic point of view, massive capital tranfers should have taken place to their countries where infrastructure, human resources, the industrial base, and local markets already existed. By not doing so, many countries of the region felt that Saudi Arabia had virtually wasted the only viable chance for successful economic development in the reigon.[17] Clearly the Saudis decided to take a number of calculated risks when they released their Second Development Plan.

The Second Development Plan: 1975–1980

In May 1975, the Second Development Plan was approved (Table 1). The overall goal was to increase employment opportunities, to raise standards of living, to diversify the sources of income, both domestic and foreign, and to reduce the country's dependence on imports. This was to be done by expanding the country's physical and social infrastructure. While the Plan was completed as oil revenues were increasing, planners faced the constraint of increased inflation, a narrow resource base, little infrastructure, and an inadequate manpower supply. It was agreed that the Plan's success would depend on successful completion of the following: massive investments in physical infrastructure, the preservation of hydrocarbon resources and increases in exports of energy intensive industries, an improvement and expansion of the government, increased private sector participation, through diversification of the non-oil sector.[18] The latter was to be accomplished through the use of foreign

Table 1—Allocations by Major Programs, Second Five-Year Plan

Sector		Percent
Water and Desalination	6.8	
Manufacturing and Minerals	9.0	
Education	14.9	
Health	3.5	
Social Programs/Youth Welfare	2.9	
Roads, Ports and Railroads	4.3	
Civil Aviation and SAUDIA	3.0	
Municipalities	10.7	
Housing	2.9	
Other (Agriculture, Electricity, Telecommunications, Holy Cities, Other)	5.9	
		63.9
Total Development Expenditures		
Defense	15.7	
General Administration	7.7	
Funds	12.7	
Total Other Expenditures		36.1
TOTAL PLAN EXPENDITURES		100.0

SOURCE: Ministry of Planning, *The Second Development Plan 1975–1980* (Riyadh, Saudi Arabia: Ministry of Planning, 1980), p. 530.

16. A. O. Hirschman, *The Strategy of Economic Development* (New Haven: Yale University Press, 1958), pp. 297-300.

17. An excellent account of this issue is given in Malcom Kerr et. al., *InterArab Conflict Contingencies and the Gap Between the Arab Rich and Poor* (Santa Monica: The Rand Corporation, 1978), p. 14

18. Ministry of Planning, *Third Development Plan: 1980–1985* (Riyadh, Saudi Arabia: Ministry of Planning, 1980), Chapter 1, Section 1.3.4.1., pp. 12-13.

labor, rural-urban migration, government assistance and the selective use of international cooperation agreements to obtain the newest technology.

By and large, the main goals were met but not without some modification of the original investment targets. The major impediment to the Plan was inflation—in the last year of the First plan the cost of living index and the GDP deflator had increased by 34.5 and 25.6 percent, respectively. The following year the respective rates of inflation were 31.7 and 40.1 percent. During the entire Second Plan the cost of living averaged 8.8 percent growth while the GDP deflator averaged 12.2 percent.[19] The government was able to curb inflation since it identified the causes and subsequently introduced appropriate controls.

The primary causes[20] for this inflation were the increase in purchasing power despite severe shortages, an inflationary monetary policy, excessively high fixed prices which had been written into many contracts, and imported inflation.[21] Anti-inflationary strategy centered on eliminating supply constraints, increasing competition, increasing port capacity and efficiency, increasing the volume of available domestic assets (such as freehold land title), and dramatically improving internal transport and distribution systems.

An appropriate monetary policy supported these measures. The annual expenditure budgets were consolidated at their 1976/77 nominal level of increase for the following two years with only a minimal increase for 1978/79. Inflation was absorbed at the expense of some economic growth. An overall contribution of this monetary policy was a widespread reduction in expectations of sustained expansion "at all costs."

In terms of macroeconomic targets, the actual GDP growth was 8 percent—2 percent lower than planned (Table 2). This result was a conscious choice by planners, i.e. given the expected growth in absorptive capacity, activity in general could not be achieved with

19. International Monetary Fund, *International Financial Statistics Yearbook: 1984* (Washington: International Monetary Fund, 1985).

20. Michael Keran and Ahmed Abdullah AlMalik, "Monetary Sources of Inflation in Saudi Arabia," in Ragaei El Mallakh and Dorothea H. El Mallakh, *Saudi Arabia: Energy, Development Planning, and Industrialization* (Lexington, Mass.: Lexington Books, 1982), pp. 113-152.

21. Ragaei El Mallakh, *Saudi Arabia: Rush to Development* (Baltimore: Johns Hopkins University Press, 1982), p. 194.

inflation and fluctuations in the growth rate. Thus, the first year of the Second Plan was the peak growth year with deceleration in both growth and inflation from then on. Despite a shortfall in overall growth of 2 percent, the growth rate of 15.1 percent was achieved in the non-oil sector against a projected rate of 13.3. Diversification from oil—a major objective of the Plan—was attained; the share of the non-oil sector increased from 27 percent of GDP to 39 percent during the period.[22]

Table 2—Second Five Year Plan, Planned and Actual Annual Growth Rates

	Planned	Actual
Non-oil Economy Producing Sectors		
Agriculture	4.0	5.4
Mining	15.0	17.1
Manufacturing	14.0	15.4
Utilities	15.0	24.4
Construction	15.0	17.2
Service Sectors		
Trade	15.0	22.1
Transport	15.0	21.1
Finance	9.7	13.0
Other	14.0	13.9
Government	12.9	6.0
TOTAL		
Non-Oil Economy	13.3	15.1
Oil Sectors	9.7	4.8
Gross Domestic Product	10.0	8.0

SOURCE: Ministry of Planning, *The Second Development Plan 1975–1980* (Riyadh, Saudi Arabia: Ministry of Planning, 1980), p. 28.

As noted above, the scope of the Second Plan required a substantial increase in manpower. The civilian labor force grew at an estimated average of 7.2 percent over the period compared to 3.8 percent during the First Plan. At the same time the proportion of Saudi nationals in the work force declined from 72 percent in 1975 to 57 percent in 1980 as a result of more foreign nationals in Saudi

22. Ministry of Planning, *The Second Development Plan: 1975-1980* (Riyadh, Saudi Arabia: Ministry of Planning, 1980).

Arabia and a significant drop in the participation rate of males 12 to 19 years of age (now enrolled in government training programs). Furthermore, a significant proportion of the labor force found it attractive to retire earlier. In summary, the Second Plan saw considerable progress in the country. Favorable growth rates were obtained, inflation was reduced, absorptive capacity increased, and infrastructure improved—all in a period of relative social stability.

The Third Development Plan: 1980–1985

While the Second Plan had eliminated some of the more severe problems other problems such as efficiency and participation remained. The overall goal of the Third Plan was to diversify the economic base in the Kingdom. Specific goals of the Plan were high growth in selected areas, reducing the size of the foreign work force, increasing the efficiency of labor and industry, price stabilization, increasing investment, moderating interest rates, providing an adequate supply of liquidity, and providing a predictable Riyal exchange rate. Three medium range objectives were identified: the structural change of the economy, increased participation in economic development, and great economic and administrative efficiency. With regard to structural changes, the policy was to expand oil and gas production, agriculture, mining and industry, and to continue to develop infrastructure. Clearly economic diversification required development of these sectors. In the government's view, the private sector was to be ultimately responsible for the bulk of output in these sectors. Thus the government continued to envision itself as a catalyst to provide information, research results, and necessary financial and investment incentives. The goal of the Third Plan and beyond was to reduce the government share of GDP.

Like its predecessor, the Third Plan anticipated a vast expenditure—$235 billion not including defense or foreign aid. When compared to the Second Plan, several shifts in development expenditures became evident (Table 3). For example, the share allocated to infrastructure development declined from 40 percent to 32 percent, while the share going to productive activities (such as industry and mining) increased from 21 percent to 33 percent. Human resource development showed a modest increase. In short the Plan was to be a period of consolidation with a more selective approach to growth and some form of manpower constraint.

Excessive inflation was acknowledged in the Plan as an area of major concern. Subsection 3.5 of the "Strategy for the Third Plan" listed the major inflationary forces which were considered as obstacles to development.[23] These were the existence of a gap between government financed demand and the supply of goods and services, the steep rise in government expenditures, the shortage of skilled manpower, the demand buildup in the private sector, and the existence of imported inflation.

The major strategy in the Plan was to rapidly increase productivity. This expected increase in productivity would translate into 550,000 fewer workers needed in the economy. As noted above, since the participation rate of Saudi nationals had declined slightly, the lack of any increase in productivity would have meant a significant increase in imported labor.[24] Capital and skill-intensive improvements within each specific sector.

Table 3—Government Expenditures on Development, Second and Third Plans

Function	Second Plan (Percent)	Third Plan (Percent)
Economic Resource Development	20.5	33.4
Human Resource Development	13.0	16.6
Social Development	7.6	7.8
Physical Infrastructure	40.4	31.8
Subtotal: Development	81.5	89.6
Administration	5.5	4.0
Emergency Reserves, Subsidies	13.0	6.4
TOTAL CIVILIAN EXPENDITURE	100.0	100.0

SOURCE: Ministry of Planning, *Kingdom of Saudi Arabia, Third Development Plan* (Riyadh, Saudi Arabia: Ministry of Planning, 1980), p. 20.

The Feasibility of the Third Plan. The goals of the Third Plan were to stabilize prices, to increase the growth rate of the non-oil sector, to increase private investment, to moderate interest rates, to

23. Bowen-Jones, "Third Five-Year Plan," p.57.

24. Ragaei El Mallakh and Dorothea H. El Mallakh, "The Third Development Plan of Saudi Arabia, 1400-1405 A.H. 1980-1985 A.D." in El Mallakh and El Mallakh, *Saudi Arabia: Energy,* pp. 187-88.

provide an adequate supply of liquidity, and to provide predictable riyal exchange rate. A serious issue is whether or not the Third Plan is feasible. For example, there is a marked lack of any over-all analysis on the Plan's goals. Trade-offs are not discussed, and there is little discussion on the use of macroeconomic policy instruments to achieve the targets. Perhaps the most important issue facing the country is whether or not local policy makers have adequate fiscal and monetary tools to implement the plan and consequently attain the stated goals.

The fiscal balance for example has been heavily influenced by the five year spending targets. While these targets did not allow for conventional fine tuning, the way in which funds are disbursed in Saudi Arabia nevertheless acts as a short term regulatory valve on the private sector. Since 1970, the Finance Ministry has imposed strict controls over funds' allocation to departments. Delaying payments has helped to prevent over-stimulation. In addition, the government has shown a willingness in the past to cut spending to stop inflation and presumably this could be done again in the future if necessary. Another unique feature of the economy is the negligible taxation. Any suggestion of raising taxes would likely be very unpopular.[25]

Constraints on using fiscal instruments has placed a greater burden on monetary policy. Again, few traditional instruments are available. The government does not issue debt instruments since there is no need to borrow to finance government spending.[26] In addition, the law forbids any interest payment. Thus the Saudi Arabian Monetary Authority (SAMA) cannot use open market operations to drain liquidity from the banking system or rediscount paper at high interest rates to control bank lending. Consequently two of the most widely used monetary tools are not used in Saudi Arabia.

Based on these considerations it was not clear whether the government could in fact contain inflation while providing enough private sector credit for expansion according to the Plan. To test the feasibility of the Third Plan, a large scale macroeconomic model of

25. William Quaindt, *Saudi Arabia in the 1980s: Foreign Policy, Security and Oil* (Washington: Brookings Institution, 1982), p. 42

26. Ragaei El Mallakh, *Rush to Development*, pp. 223-225.

the Saudi Arabian economy was developed.[27] The model is based on four major assumptions: (1) a limited number of exogenous variables determine the macroeconomic variables, (2) government expenditures follow a pattern similar to that of 1960-79, (3) no major alterations in world economic conditions would take place over the Plan period, and (4) the oil glut would continue at least until 1985.

Utilizing this model, simulations were designed to test for the consistency of Third Plan's major objectives. Real government investment was selected as the instrument variable in each simulation. This assumes that the authorities will have more control over capital than over current expenditures (such as salaries). For purposes of the simulations, the major economic objectives of the Third Plan were dichotomized into (a) a growth objective where real non-oil GDP increases at a minimum acceptable rate of 6.19 percent annually, (b) a social objective where the labor forces increases at a maximum rate of 1.16 percent annually, (c) a stability objective where inflation is less than 10 percent, and (d) an ideological objective where the private sector gradually replaces the government sector. While no actual target has been announced by the Saudi government, for simulation purposes it was assumed that a one to one proportion between private and government expenditure would exist.

Simulation Results. The first set of simulations assumed that the authorities would implement a strategy to reduce the foreign work force—an average annual growth of only 1.16 in the labor force would be strictly adhered to. The simulated growth path (Table 4) illustrate several fundamental tradeoffs likely to confront Saudi planners over the Third and into the Fourth Plan (1985-1990) periods. These are:

1. High growth (6.19 percent above), price stability (inflation under 10 percent), increased private sector participation, and a reduction in the foreign labor force are incompatible objectives.
2. Real income growth in the target range (6.19 percent) cannot

27. An earlier version of the model was presented in Robert E. Looney "Saudi Arabia's Economic Development Strategy: Alternative Crude Oil Production Scenarios," NUPI NOTAT No. 203, Oslo, Norway, Norsk Utenrikspolitisk Institut, 1980. A full description of the model is given in Robert E. Looney, "Impact of the World Oil Glut on the Saudi Arabian Five Year Plan (1980-85)," Paper presented at the 1983 Middle East Studies Association Meetings, Chicago, November 1983.

***Table 4**—Saudi Arabia: Alternative Growth Strategies Under Labor Force Constraints, 1981–1985*
(Average Annual Growth Rates)

	Growth Strategy					
	I	II	III	IV	V	VI
Non-oil GDP	7.8	6.19	1.0	1.3	5.0	6.19
Private Consumption	5.4	9.2	11.3	11.8	13.9	12.6
Private Investment	4.1	4.9	2.4	2.4	4.0	5.1
Private Expenditures	5.1	11.1	9.4	9.8	11.2	10.9
Government Investment	14.1	4.7	-4.6	-6.4	-1.3	6.7
Government Consumption	11.9	9.2	1.7	1.1	6.9	9.8
Government Expenditures	12.8	7.4	-0.7	-1.7	3.8	8.6
Non-oil Deflator	10.1	13.2	5.1	5.0	11.8	13.5
Ratio-Private Government Expenditure (1985)	0.44	0.74	1.00	1.00	0.91	0.69

NOTE: Average annual growth of labor force held at 1.16 percent in all strategies.

Growth Strategy Assumptions:

I High growth with price stability—non-oil gross domestic product deflator maximum = 10% per annum: maximum rate of increase in non-oil GDP.

II Third Plan target growth under minimum inflation conditions—target growth in non-oil GDP = 6.19 percent; minimize inflation.

III High private sector participation with growth—ratio private to government expenditures equal to one by 1985; maximum rate of growth.

IV High private sector participation with price stability—ratio private to government expenditures equal to one by 1985; minimize inflation.

V Moderate growth-high stability plan—target rate of non-oil GDP = 5.0; minimize inflation.

VI Third Plan growth target with maximum private sector participation—non-oil GDP growth = 6.19 percent per annum; maximize private-government expenditure ratio.

be sustained without double digit inflation (Paths I, II and IV).

3. An increase in the relative share of private sector expenditures will lead to a reduction in real non-oil GDP (Paths III and IV).

4. Inflation can be constrained at moderate rates only at the cost of reduced income growth paths (Paths III and IV).

The best compromise among policy objectives appears to be one of moderate growth-non-oil income expansion in the 5 percent range under conditions of minimum inflation (see Path V). This path would assure real income increases, price stability, meet the foreign labor force objectives, and increase the participation of the private sector.

These results are both disturbing and encouraging. On the one hand, it is clear that the Kingdom cannot achieve the objectives of the Third Plan without fundamental structural changes in the economy. Increasing the amount of money allocated to infrastructure and related projects will not automatically assure attainment of the stated goals. On the other hand, the picture could change drastically if the authorities modify their policy on foreign workers. This hypothesis was tested through a series of additional simulations. If the labor force was allowed to expand beyond the target of 1.16 percent to approximately 5.0 percent the inflationary pressure would decline. Real growth and inflation would be approximtely 6 percent and 8 percent respectively, with some gradual increase in private sector participation. Growth rates over 8 percent are clearly undesirable under any reasonable foreign labor policy—expansion at this rate would lead to unacceptable inflation.

In general these results were supported by other simulations[28] which identified the maximum non-oil GDP growth rates attainable under alternative inflationary constraints. Rates of growth in the 6–7 percent range may be possible at the expense of relative private sector expansion, and significant expansion of the private sector can only occur with reduced overall growth. Specifically, with regard to the private sector, an expansion would be facilitated by higher labor force growth rates, but any significant increase could only be obtained at the expense of over-all income growth.

The model indicates there were no unique bounds to Saudi Arabia's growth path during the Third Plan. The growth path selected would implicitly be at the expense of one of the Plan's major priori-

28. Available from authors on request.

ties. While the results of the Plan have not yet been published, it is clear that the recent reduction in oil revenues has not resulted in a proportional reduction in government allocations. Instead the government has been willing to reduce part of its foreign portfolio to make up for the loss in revenues in 1982 and 1983.[29] This reflects a determination to continue to disperse the wealth to the population and to maintain existing levels of prosperity where possible. The slowdown in public expenditures did affect the economy to some degree. Estimates are that real GDP fell by more than 17 percent in 1983, although the majority of the reduction was in the oil sector. Real non-oil GDP grew at probably around 2.5 percent which although well below the double digit averages of the mid 1970's was nevertheless impressive.

The Fourth Development Plan: 1985–1990

The Fourth Plan was released in March 1985. As our model indicated, many of the government's macroeconomic targets could not be met by the end of the Third Plan. Many of the targets have been extended into the Fourth Plan period. The main objectives of the latest plan are to streamline the administration and reduce or even eliminate unnecessary support and subsidy programs. Total government expenditures for the plan are $277.7 billion with approximately fifty percent allocated to development projects.

The Fourth Plan is based upon four principal themes, each aimed at addressing the Kingdom's long term challenges. First, there is a heightened concern with the operational efficiency of the Kingdom's resources and facilities. Secondly, the Plan focuses on the diversification of production activities, especially in areas such as manufacturing, agriculture and finance. The annual growth rate of GDP is projected to be 4 percent over the Plan's period, with a planned growth of 15.5 percent in industry, 9 percent in financial and business services, and 6 percent in agriculture. The Plan included no further expansion in government and negligible activity in large scale construction.

The third theme emphasizes the goal of reducing the number on foreign nationals working in the Kingdom by 500,000. Some labor saving devices and techniques will be introduced to reduce the dependence on unskilled labor from abroad. The final—and possibly the most important—thrust of the Plan is to promote the private sector's role in the development of the economy. The Plan envisions a much more active role by the private sector in industries currently financed or administered by the government. As an incentive, the government has proposed that financial resources and facilities will be available to prospective investors. Other incentives to stimulate investment in domestic production and to promote local growth will be implemented in the hope that capital is created which can then be reinvested within Saudi Arabia.

29. *Saudi Report,* (April 1, 1985), p. 4.

Conclusions

Given the same caveats outlined with respect to the macro implications of the Third Plan, it is clear that Saudi Arabia planning has evolved into an advanced stage and that the country is on a path to economic modernization. As the Fourth Plan states, the Saudi economy is ". . . emerging from a construction based economy into a more solid production based growth economy." The massive and unprecedented investments in infrastructure development ". . . have just started to pay off. Their impact on growth of the economy has just begun to unfold and the future gains from such investments should be the hallmark of the Saudi economy in the years to come."