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The Saudi Arabian quandary: The economy's inability to sustain growth

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Abstract

Before the recent surge in oil prices, the Saudi Arabian economy was showing signs of slow-down and stagnation. The economy appeared incapable of sustaining growth without a rising infusion of oil revenues. The purpose of this paper is to identify the main factors responsible for the on-going economic deterioration. An analysis of government expenditures suggests a major factor responsible for the country's economic decline is deterioration in the links between government expenditures and the non-oil sectors of the economy. In large part, the declining effectiveness of government expenditures in stimulating private sector activity can be attributed to the high priority the government gave to social expenditures and defense. The implications are that if the economy is to achieve self-sustained growth independent of developments in the oil sector, government expenditures will have to be refocused on activates that directly support private sector investment. The welfare state will have to be scaled back and a higher priority given economic allocations. More emphasis must be placed on efficiency and productivity in government activities.

"The problem in Saudi Arabia is that the middle class is shrinking, and the more poverty you have, the more fundamentalism you have."

"I think there is no choice any longer. It is a kind of imperative. Either you change the essence of our political culture or you just vanish."

Turki Hamad

1. Introduction

For an increasing number of citizens, the Saudi Arabia of the heady years following the 1973/74 oil price revolution is a land of fable and memory. Yet to many outside the Kingdom, the country's economic statistics may come as a shock. Population growth (about 3.3 percent per year) has exceeded GDP growth for several decades causing a decline in per capita GDP (in inflation adjusted US dollars, from more than US $15,000 in 1980 to a about US $9,000 in 2003. There is high unemployment—20 to 30 percent by some measures, while up to 20-30 percent of the population is below the poverty line. Translating these figures into more tangible signs of trouble for the Saudi Government, Kim Murphy (2003: A1) has observed:

The dozen years since the Persian Gulf War have witnessed slums develop on the outskirts of Jeddah and Riyadh, the capital. Beggars hawk bottles of water at intersections. Penniless women huddle in strips of shade outside their crumbling mud-brick houses, begging for money. Many families in the capital are so poor they can't afford electricity. Raw sewage runs through parts of Jeddah... The increasingly perilous economic situation that all in Saudi Arabia but the royalty face today may be a big factor in recruiting young Saudis to terrorist groups such as Al Qaeda. Chronic joblessness, diminished incomes and difficulty in collecting enough money to marry and start families are all issues that can evoke anger.

The deteriorating economic situation is manifesting itself in new and troubling ways. Virtually crime free since its founding, the country's deeply conservative Islamic society is grappling with rapidly increasing crime. Crime among young jobless Saudis rose by 320 percent between 1990 and 1996, and was expected to go up by another 136 percent by 2005 (Bradley, 2003).

To counter these trends, Crown Prince Abdullah, the de facto leader of the kingdom, has announced plans for sweeping reforms including privatization, liberalization and diversification of the economy[1]. However there are no easy solutions. One problem stems from the fact that conservative opposition within the ruling family remains strong and presents significant obstacles that appear to be limiting the pace of reform (Trofimov, 2003: A12). Another problem is that, barring major reforms, the financial cost of the state-led diversification of the economy over the next twenty years may reach upwards of US $100 billion. The country's national debt is already over 100 percent of its GDP—the government,

[1] For an excellent overview of the problems facing Crown Prince Abdullah, see Kechichian (2003: 100-15).

even with an improved oil picture may simply not be in a position to finance the diversification of the economy without extensive private sector participation.

On the other hand, bringing in private foreign investors is not without its problems. Obviously the increased presence of foreign businessmen will only further strain the relationship between the government and the kingdom's more traditional groups. This is assuming, of course, that the government would be able to convince the foreign investment community that the kingdom is a secure place to do business, and not a potential battleground between the royal family-dominated government and international terrorists.

Saudi Arabia's problems have been decades in the making and certainly will not be solved in the short or perhaps even medium term. The purpose of the sections that follow is to attempt to identify the main factors responsible for the on-going economic deterioration. Have fundamental changes taken place in the economy, perhaps since 1980, to cause the decline in non-oil economic growth? If so, what are they, and what are the implications for the future?

2. Trends in the Economy

The inability of the Saudi non-oil economy to sustain high rates of growth can best seen from the actual historical record (Table 1). The overall rate of real non-oil GDP averaged 7.4 percent over the 1960-2002 period (7.1 percent from 1970 to 2002). However, an expansion since 1980 of 2.3 percent has not even kept up with the growing population. While one might argue that the -0.9 percent average annual decline in oil GDP between 1980 and 2002 is the main factor responsible for this sub-par performance, government expenditures, the means through which oil revenues are actually spread through the economy, grew at the higher rate of 3.0% per annum.

Table 1
Saudi Arabia: GDP Growth 1960-2002
(average annual rate of growth)

GDP Measure	1960-2002	1970-2002	1980-2002
Non-Oil	7.4	7.1	2.3
Private	8.8	8.9	2.0
Public	5.9	5.1	3.0
Total	5.7	4.7	1.0

Note: Data are for aggregate domestic output

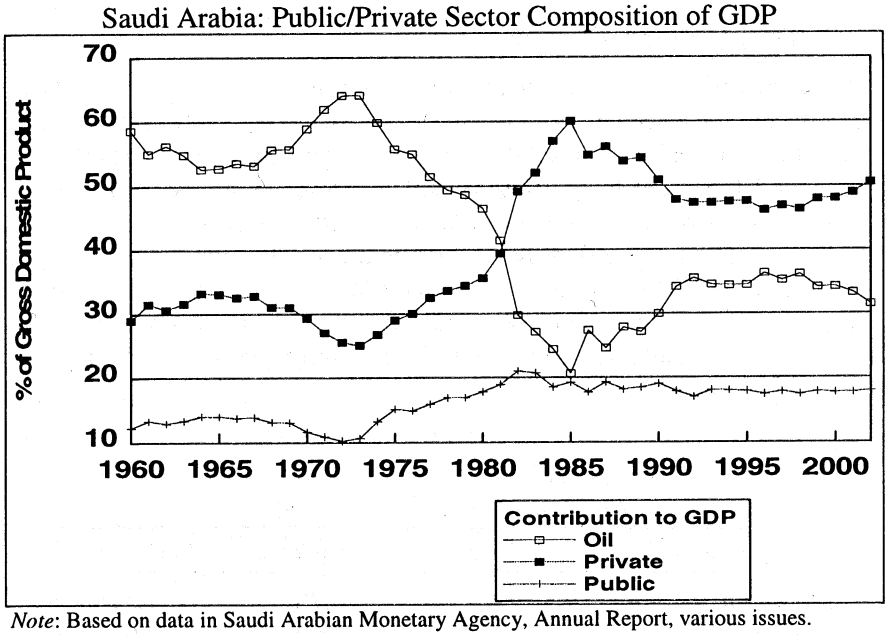
While an exhaustive examination of the factors underlying this deterioration in Saudi non-oil economic growth are beyond the scope of this paper, several important patterns, mainly evolving since the early 1980s, have a great bearing on the issues at hand.

2.1. Public/Private Composition of Gross Domestic Product

The Saudi Arabian Monetary Agency[2] breaks the country's Gross Domestic Product (GDP) into three main categories: public sector output, private sector output and the oil sector's contribution to GDP. Here the main patterns of interest (Figure 1) center around the relative growth of private sector output as a percentage of total GDP. In the pre-1973/74 period, private sector activity accounted for around 30 percent of the country's output. This fell slightly following the 1973/74 oil price increases, only to steadily increase to 60 percent by 1985. Since that date, private sector output has declined gradually, leveling off at around 48 percent of output.

Figure 1

Saudi Arabia: Public/Private Sector Composition of GDP



Note: Based on data in Saudi Arabian Monetary Agency, Annual Report, various issues.

[2] Unless otherwise specified all macroeconomic data used here are from the Saudi Arabian Monetary Agency Annual Report, various issues.

In contrast, the public sector's output averaged around 12 percent before 1973/74. After that date, the public sector's share increased steadily to slightly over 20 percent (1983), thereafter leveling off at around 18 percent through 2002. Finally, the oil sector averaged around 55 percent of GDP prior to the 1973/74 oil price increases. After that date, the sector's share of output declined sharply to around 20 percent in 1985. The sector's share in total output increased throughout the rest of the 1980s, leveling off at around 35 percent of output starting in the early 1990s.

If an oil country's success is depicted by its diversification away from a dependence on oil revenues, then the Saudi picture is mixed. The private sector has been able to expand its share of output to the point that it now accounts for around half of the kingdom's GDP. However, this is actually 10 percent lower than that attained in the mid-1980s. While the sector appears capable of sustaining this percentage of output through very different periods of oil prices and revenues, indicating some independence from year to year oil market fluctuations, the sector has not shown it is capable of high rates of sustained growth. Interestingly, the public sector's share of output has been quite stable since the early 1980s.

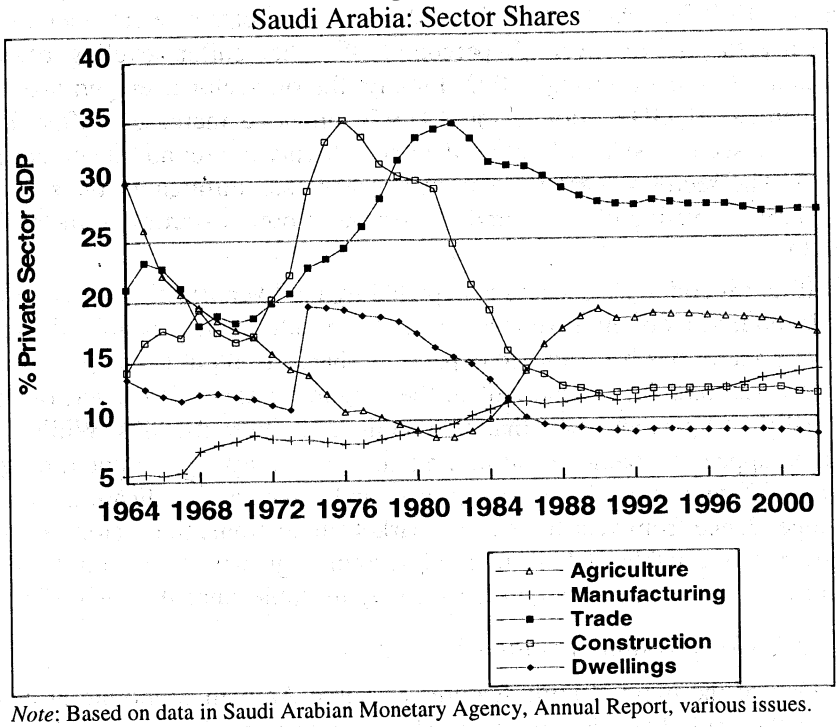
2.2. Composition of Output by Sectors

One of the more striking features of Saudi Arabian economic growth since the mid-1960s has been the sharp changes in the composition of non-oil output (Figure 2). Clearly the 1973/74 oil price increases had a significant impact on the construction, trade and housing sectors. Of these sectors, construction, and housing have leveled off at around 12 percent for the former and 8 percent for the latter of private sector output. On the other hand, trade (retail and wholesale) has averaged around 27 percent of private sector expenditures since the late 1980s.

Another feature of interest is the fact that the agricultural sector, after declining in relative importance up to the early 1980s, has increased its share of non-oil private output from around 8 percent at that time to a relatively stable 17-18 percent beginning in the late 1980s. The most stable activity appears to be the non-oil manufacturing sector. This sector's share in private sector output was not affected by the 1973/74 oil boom. Instead, it has gradually increased its share of private sector output from about 5 percent in 1968 to around 14 percent in 2002.

From these patterns, it appears that while great strides have been made in increasing total private sector output, the composition of that output in many regards—agriculture, trade, construction and housing have returned to their pre-oil boom pattern. The main exception is the non-refining private sector manufacturing sector which, as noted, has gradually increased its share of output.

Figure 2
Saudi Arabia: Sector Shares



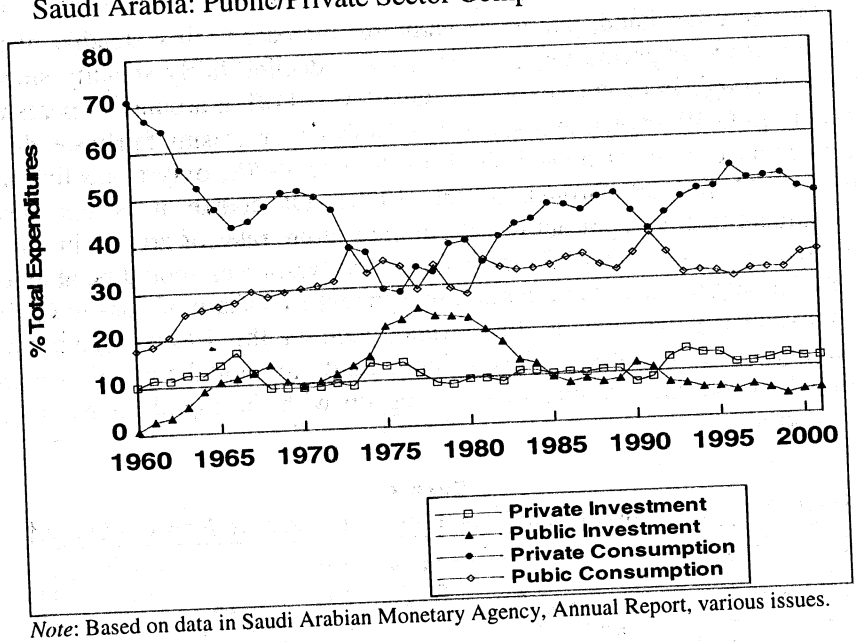
Note: Based on data in Saudi Arabian Monetary Agency, Annual Report, various issues.

2.3. Public/Private Composition of Expenditures

The composition of output between public/private consumption and investment has also developed several interesting patterns over time (Figure 3). Here, the most stable series is private investment, averaging slightly above 10 percent of total expenditures. Interestingly, the share of private sector investment was not significantly affected by the 1973/74 oil price increases, nor did it expand in line with the post-1973/74 to 1985 expansion in the share of private sector activity in GDP noted above.

In contrast, private consumption's share of expenditures dropped from a high of 70 percent in 1960 to around 30 percent at the time of the 1973/74 oil price increases. Since that time private consumption, while fluctuating a bit, has increased back up to around half of total expenditures. Public consumption gradually increased from less than 20 percent of expenditures in 1960 to around 30 percent at the time of the 1973/74oil price increases. Since that date, the public sectors consumption has fluctuated in the low 30s, with no particular trend.

Figure 3
Saudi Arabia: Public/Private Sector Composition of Expenditures



Note: Based on data in Saudi Arabian Monetary Agency, Annual Report, various issues.

Of the four expenditure variables, public investment has shown the most notable trends, gradually increasing its share of expenditures from near zero in 1960, up to around 25 percent in 1975. Since that date public expenditures have shown a gradually declining trend, winding up at around 5 percent by 2002.

These patterns and trends suggest that economic pressures are mounting—falling (public) and stagnant private investment rates in the context of a rapidly growing population mean increased domestic bottlenecks and capacity constraints reducing the country's sustainable growth potential. Many of these constraints, power shortages and the like are reported on a regular basis in the popular press.

2.4. Patterns of Public-Private Expenditure/Non-Oil Output

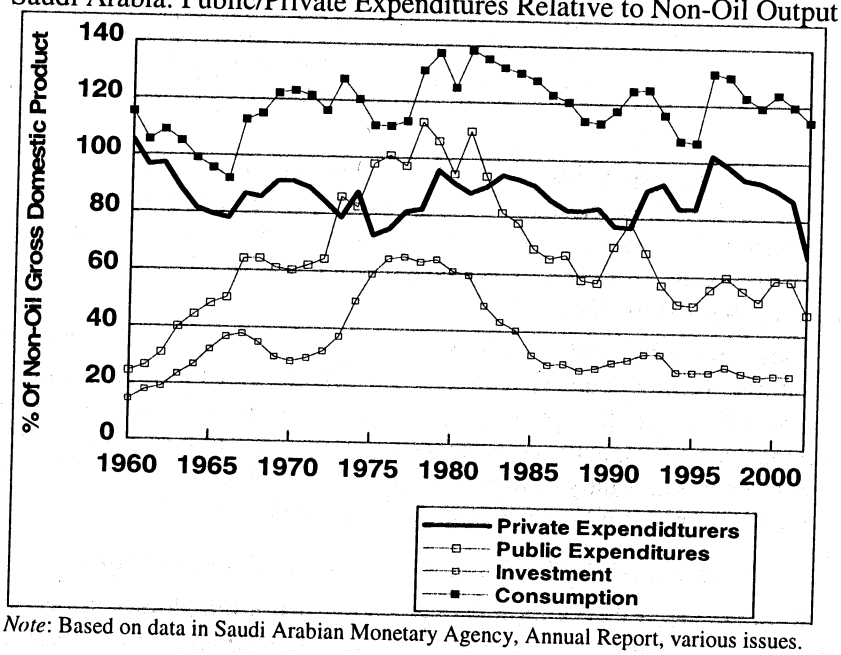
Another way of looking at the problem of the kingdom's rather low rates of investment is to compare the various expenditure items to non-oil GDP. Again, there are several relatively stable patterns and several that depict longer-term trends (Figure 4). Private expenditures have maintained a relatively stable pattern with respect to non-oil GDP—largely fluctuating between 80 and 100 percent of output. The early 1990s experienced an increase in this ratio, followed by a fairly sharp contraction from 1996 to 2002. Overall consumption (public plus private)

also reflects this pattern, albeit at a higher level averaging around 120 percent of non-oil GDP, with imports balancing supply and demand.

On the other hand, public expenditures increased fairly steadily over the twenty year period up to 1980, only to decline fairly steadily since then, although in recent years they have leveled off at around 55 percent of non-oil GDP. Investment also reflects this pattern, rising fairly steadily to over 60 percent of non-oil GDP in the late 1970s, only to decline to around 22 percent throughout the 1990s. Of course it is not just investment that is important in determining future rates of growth in non-oil GDP, but a country of Saudi Arabia's vast resources should be able to mobilize larger amounts of capital. Investment as a share of non-oil GDP has essentially returned to the levels found in the 1960s. Again the inability of the country to devote more funds to capital formation will limit the economy's ability to just keep up with the rapidly expanding population.

Figure 4

Saudi Arabia: Public/Private Expenditures Relative to Non-Oil Output



Note: Based on data in Saudi Arabian Monetary Agency, Annual Report, various issues.

2.5. Public Expenditures

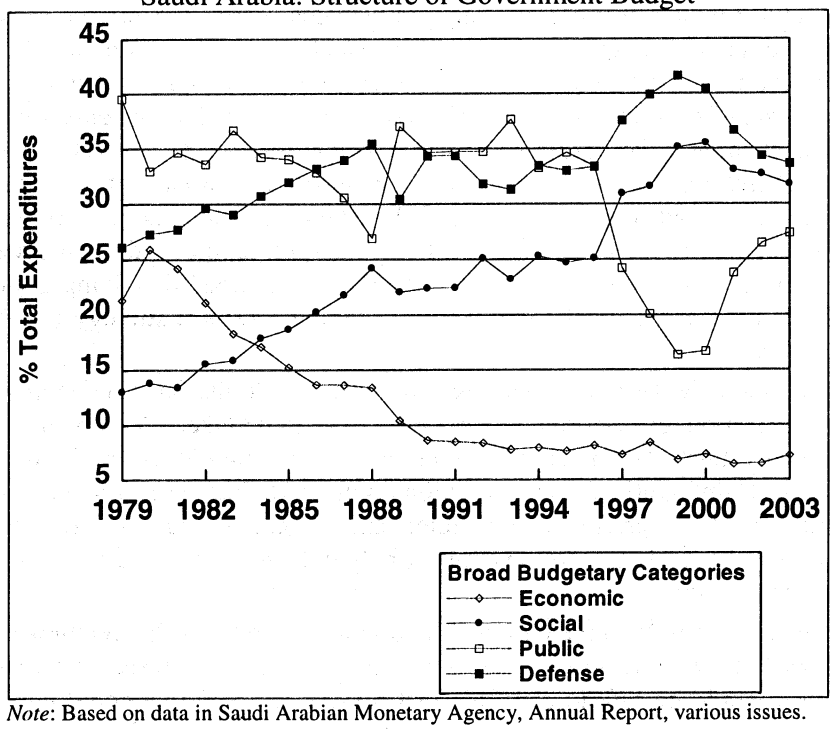
As is well known, the kingdom has experienced on-going budget difficulties since the mid-1980s. Growing deficits have been the norm, with non-oil revenues unable to pick up the slack during periods of falling oil revenues. What is less well known is that the composition of

public expenditures has been undergoing some profound changes during this period. Aggregating the main budgetary items into four main groups, several patterns stand out (Figure 5). Corresponding to the declines in investment noted above, economic expenditures (economic services, transport and com-munications, and infrastructure) have declined steadily since 1980, from around 25 percent of the budget at that time to a little over 7 percent by 2003.

Social expenditures (human resource development and health) have been the major beneficiaries of the decline in economic allocations more than doubling their share of the budget over the period 1979-2003 (from 13 percent to nearly 32 percent of total expenditures). Defense remains the largest budgetary item, fluctuating in the 35-40 percent range in the period after 1988.

Figure 5

Saudi Arabia: Structure of Government Budget



Note: Based on data in Saudi Arabian Monetary Agency, Annual Report, various issues.

Finally public expenditures (administration, loans and subsidies) have shown the most erratic pattern. After fluctuating around 35 percent of the budget between 1979 and 1994, they fell sharply to less than 20 percent in 1999, only to increase to about 27 percent in 2003. The sharp decline

in public expenditures in the early-mid 1990s stemmed, in part, from a sharp cut-back in the government's loan programs.

3. Key Economic Linkages[3]

The patterns described are suggestive of an environment in which the public sector is contracting in many areas. This is especially the case with regard to economic expenditures and other activities directly supportive of the private sector. Budgetary shifts away from economic categories are the most obvious manifestation of this phenomenon. Falling shares of investment relative to non-oil output are also indicative of the kingdom's capital stock and productive expenditures playing much less of a stimulative role as in the unbalanced growth strategy (Looney, 1995) implicit in the early oil boom years.

More subtle shifts in policy or policy effectiveness can only be inferred from a statistical analysis of the patterns noted above. Of particular importance are the linkages between public and private sector expenditures / output on non-oil production and investment. If a connection exists between these variables, how much can be attributed to short-run effects–oil shocks and the like, and how much represents longer term affinities? For example, private sector investment is likely to be stimulated with an oil boom led expansion of public infrastructure investment, but over time is it dependent on ongoing government investment or could be sustained by non-public induced investment opportunities? Have these patterns changed over time? Resolving issues of this type is a critical first step in designing a reform strategy for the country.

To identify the main policy relevant linkages in the Saudi economy a co-integration error-correction analysis was undertaken. While mathematically fairly technical, this technique has a straightforward intuitive appeal. Cointegration/error-correction attempts to determine whether two series (such as private expenditures and private sector output) move together over long periods of time[4] due to some sort of real interconnection.

If for example in the case Saudi Arabia, we find that this relationship exists between say government expenditure and private sector output, then it would be safe to conclude that private sector output could not be sustained without a steady infusion of government expenditures. More precisely, the analysis accepts the fact that short run shocks can occur

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[3] This section updates and extends the analysis undertaken in Looney (2001).

[4] For a detailed description of the technique and methods of estimation, see Pesaran and Pesaran, 1997: 106-9).

whereby rapid increases (say, public sector investment) in one variable cause movement in the other (i.e., construction). However, if the two variables have developed a long-run linkage, whereby an ongoing-stable set of links have been established, then equilibrium will be restored with the speed of adjustment affected by the deviation from that long run pattern. Specifically, the speed of the longer term adjustment will be dependent on the magnitude of the deviation from the long run equilibrium pattern as well as the strength of the linkage between the two variables. In short, the year-to-year growth over time of a sector such as non-oil manufacturing can be decomposed into two parts: the first associated with a short run shock (say increased public sector consumption) and the second that drawing on the longer-term linkages established with the causal (here public sector consumption) variable. In short this technique is capable of yielding insights not often captured by the more conventional regression methods.

3.1. Relative Efficacy of Public Private Expenditures

A common theme in the development literature is that economic processes in oil-based countries becomes more complex as these economies mature and begin to diversify away from a complete reliance on oil revenues and associated public sector expenditures. Using the cointegration analysis noted above, there is clear evidence that this process is well advanced in Saudi Arabia. With regard to the economy's leading sectors (Table 1):

1. Growth in the agricultural and mining sectors became more dependent on private expenditures and less dependent on public expenditures, especially during the 1975-2001 period.

2. The non-oil manufacturing sector has become almost completely dependent on private sector expenditures, with strong linkages to these expenditures in both the short- and longer term. In contrast, public sector expenditures have little stimulative effects on the sector.

3. Traditionally the wholesale and retail trade sectors have been dependent on both public and private sector expenditures. While this remains the case for private sector expenditures, public sector expenditures currently have only a short-run transitory effect on the sector's output.

4. In a major change from earlier periods, output in the construction sector is no longer dependent on public expenditures. Instead, output in this sector now depends primarily on the long term pattern of private sector expenditures.

5. Private expenditures have strengthened their linkages to the housing sector as well as transport, storage and communications sector. While output in this sector is still responsive to public sector expenditures this linkage has weakened over time.

6. Other financial activities are dependent on private expenditures. However with regard to public expenditures this effect is confined to the longer term effects of governmental expenditures.

7. Finally, linkages between private expenditures and the service sector (community, social and personal services) have strengthened considerably in recent years. This sector's links to public sector expenditures have also weakened.

In sum, the pattern found here is one of strengthening linkages between private sector expenditures and sectoral output. At the same time the ability of public sector expenditures to provide a positive stimulus to output has weakened considerably. In fact in several key sectors, non-oil manufacturing, and construction, public sector expenditures no longer play a role in affecting output growth. In others, agriculture, mining, trade, and services, public expenditures may only play a minor role in the overall growth of these areas of activity.

3.2. The Impact of Public Expenditures on Private Expenditures

Of course, one could always argue that the unlikelihood of private sector expenditures being sustained without a steady infusion of government expenditures. If that is the case, the links between public sector expenditures and sectoral output still exist, but have only become more indirect with time. To test this hypothesis, a statistical analysis similar to that between public/private expenditures and sectoral output was undertaken. Here the question was: is private expenditure dependent on government expenditures? Has this pattern changed with time? The main findings (Table 2) suggest that over time there has been a weakening of the linkage between public and private expenditures similar to that occurring between public sector expenditures and real output. In fact, the only statically significant link between public expenditure and private expenditure in the 1980-2001 period occurred with an expansion in public infrastructure, which provided a short term stimulus to private investment. However, the longer term effects present between these two variables in the 1964-1980 period are apparently no longer present.

The question that immediately arises as to the factors responsible for the deterioration in links between government expenditures and, for all practical purposes, the rest of the economy. Given the fall in the relative share of government expenditures in such areas as non-oil GDP, diminishing returns can no doubt be ruled out. The major changes in the

composition of the government's budget noted above (Figure 5), would appear to be a more likely source of the decline in the strength of public sector linkages.

Table 2
Saudi Arabian Sectoral Output:
The Relative Efficacy of Public/Private Expenditures

Sector		1964-2001	1964-1985	1975-2001
Agriculture				
	Total Private Expenditures			
	Short Run	+	ins	+
	Long-Run	+	+	+
	Total Public Expenditures			
	Short Run	ins	+	ins
	Long-Run	+	+	+ (weak)
Mining				
	Total Private Expenditures			
	Short Run	ins	ins	ins
	Long-Run	ins	ins	+ (strong)
	Total Public Expenditures			
	Short Run	+	+	
	Long-Run	+	+	+ (weak)
Manufacturing				
	Total Private Expenditures			
	Short Run	+	ins	+
	Long-Run	+	+	+
	Total Public Expenditures			
	Short Run	ins	ins	ins
	Long-Run	ins	+	ins
Wholesale-Retail Trade				
	Total Private Expenditures			
	Short Run	+	+	+
	Long-Run	+	+	+
	Total Public Expenditures			
	Short Run	+	+	+
	Long-Run	+	+	ins
Construction				
	Total Private Expenditures			
	Short Run	ins	ins	ins
	Long-Run	ins	ins	+
	Total Public Expenditures			
	Short Run	+	+	ins
	Long-Run	ins	+	ins

Table 2 (continued)

Sector	1964-2001	1964-1985	1975-2001
Transport, Storage and Communication			
Total Private Expenditures			
Short Run	+	ins	+
Long-Run	+	None	+
Total Public Expenditures			
Short Run	+	ins	+
Long-Run	+	+	(weak)
Ownership of Dwellings			
Total Public Expenditures			
Short Run	+	ins	+
Long-Run	+	+	(weak)
Total Public Expenditures			
Short Run	+	ins	+
Long-Run	+	+	(weak)
Other			
Total Private Expenditures			
Short Run	+	+	+
Long-Run	+	+	+
Total Public Expenditures			
Short Run	+	ins	+
Long-Run	+	+	(weak)
Community, Social and Personal Services			
Total Private Expenditures			
Short Run	+	+	ins
Long-Run	+	Negative	+
Total Public Expenditures			
Short Run	+	ins	ins
Long-Run	+	+	+ (weak)

Notes: Data from Saudi Arabia Monetary Agency, Annual Report, various issues. Calculations were made using the ARDL approach to cointegration developed by Pesaran and Pesaran (1997). Optimal variable lag structure is based on the Akaike Information Criterion (AIC). 'ins' = statistically insignificant; '+' = positive impact statistically significant at the 95% level.

3.3. Expenditure Categories and Revenues

Again, aggregating the various sections of the government's budget into four main categories, social expenditures, economic expenditures, public expenditures and defense, several interesting statistical patterns emerge that may help to explain the falling stimulative effect of public expenditures on the non-oil private sector. First looking at the links between government revenues and expenditures (Table 3), economic

expenditures, public expenditures and defense follow a similar pattern: each expands in the short-run with increased government revenues (of course, they would also contract with falling revenues). This pattern carries over into the longer term with each category of expenditure maintaining a stable relationship with revenues.

Table 3

Saudi Arabia: The Impact of Public Expenditures on Private Expenditures

	1964-2001	1964-1980	1980-2001
Total Private Expenditures			
Total Public Expenditures			
Short Run	+	+	ins
Long-Run	+	+	ins
Short Run	+	+	ins
Long-Run	+	+	ins
Private Investment			
Total Government Investment			
Short Run	ins	+	ins
Long-Run	ins	+	ins
Short Run	+	+	+
Long-Run	ins	+	ins
Private Consumption			
Total Public Consumption			
Short Run	+	+	ins
Long-Run	+	+	ins
Expected Public Consumption			
Short Run	+	+	ins
Long-Run	+	+	ins

Notes: Data from Saudi Arabia Monetary Agency, Annual Report, various issues. Calculations were made using the ARDL approach to cointegration developed by Pesaran and Pesaran (1997). Optimal variable lag structure is based on the Akaike Information Criterion (AIC). 'Ins' = statistically insignificant; '+' = positive impact statistically significant at the 95% level.

On the other hand, there does not appear to be any links, either short- or long-term between revenues and social expenditures. As noted, this category has been the fastest growing category of expenditures. More importantly it, along with defense, now dominate the government budget. The fact that the expansion in social expenditures appears to be independent of the government's revenue position suggests that either these allocations receive a much higher priority over other expenditures and / or that the government is willing to run large deficits to fund these programs. No doubt their rather steady increase until the last several

years means that they have played a rather limited, if any, role in macroeconomic stabilization.

3.4. Social Expenditures and Budgetary Tradeoffs

A closer look at social expenditures finds that their budgetary share has grown largely at the expense of several economic sections of the budget (Table 4), namely transport and communications and direct economic allocations. In both cases, short run increases in social expenditures had a negligible impact on their budgetary shares. However the more fundamental long-term impact was clearly negative. The only economic category not adversely affected was infrastructure, where social expenditures did not appear to affect this categories' budgetary share in either the short or longer term.

The dramatic decline in the budgetary share of subsidies may be attributed in part to the growth of social expenditures. Both the short and long term impacts of expanded social expenditures reduced the proportion of the budget allocated to subsidies.

Table 4
Saudi Arabia Major Expenditure Categories Link to Revenues (1979-2002)

Sector	Impact Period	Impact
Social Expenditures (human resource development, and health)		
	Total Revenues	
	Short Run	ins
	Long-Run	ins
Economic Expenditures (transport and communication, economic and		
	Total Revenues	
	Short Run	+
	Long-Run	positive
Public Expenditures (public administration, loans, and subsidies)		
	Total Revenues	
	Short Run	+
	Long-Run	positive
Defense		
	Total Revenues	
	Short Run	+
	Long-Run	positive

Note: See Table 2.

Interestingly, defense allocations did not suffer at the hands of social expenditures[5]. Short run increases in the budgetary share going to social categories actually increased the share of the budget controlled by defense. The same was true for allocations to the municipalities. Governmental loans were the only budgetary sub-category unaffected by the expansion of social expenditures. The contraction of this category apparently was due in part to a shift in governmental priorities rather than a direct allocation conflict with social expenditures.

3.5. Fiscal Linkages: Government Expenditures and Revenues

In short, the high priority given to social expenditures, followed by defense, together with limited oil revenues during most of this period, resulted in a tremendous contraction in the public sector's allocation to economic services of various types. This is verified in part by a final statistical analysis—the relationship between government revenues and public consumption and investment.

As one might imagine, in a relatively resource constrained country as Saudi Arabia has become, there is a strong link between revenues and expenditures in both the short and long run (Table 5). However this pattern does not hold for the sub-categories of total expenditures (national accounts measure). In the case of public consumption, changes in revenues do not have a significant impact on year-to-year allocations. One interpretation is that since much of this expenditure represents salaries and many of the high priority social programs that can't or won't be altered by the authorities. They are relatively immune from short run revenue fluctuations. On the other hand, these categories form a strong long term relationship with revenues.

In contrast, public investment appears much more discretionary in the short term—expanding and contracting in part to similar movements in revenues. On the other hand, public capital formation is not assured (as is consumption) a growing budget in line with revenues—despite the long term implementation of capital projects, there is no corresponding link between them and the government's available revenues. Public capital formation is largely treated as a low priority, discretionary section of the budget.

All and all, it is somewhat surprising that Saudi Arabia has not taken steps to establish an 'oil stabilization fund' that would receive windfall revenues during high oil price periods and disperse funds for

[5] Using different statistical techniques, a similar result was previously found in Looney (1991, 1992).

government operations during low oil price periods[6]. Given the country's huge reserve base and relatively small population, there appears to be no perceived need to save some current oil revenues and invest them for future generations.

Table 5

Saudi Arabia: Social Expenditures and Budgetary Tradeoffs (budgetary shares)

Sector		Social Expenditure Impact
Transport Commonications		
	Social Expenditures	
	Short Run	ins
	Long-Run	negative
Economic		
	Social Expenditures	
	Short Run	ins
	Long-Run	negative
Infrastructure		
	Social Expenditures	
	Short Run	ins
	Long-Run	ins
Municipalities		
	Social Expenditures	
	Short Run	+
	Long-Run	ins
Defense		
	Social Expenditures	
	Short Run	+
	Long-Run	no relationship
Public Administration		
	Social Expenditures	
	Short Run	negative
	Long-Run	ins
Loans		
	Social Expenditures	
	Short Run	ins
	Long-Run	ins
Subsidies		
	Social Expenditures	
	Short Run	negative
	Long-Run	negative

Note: See Table 2.

[6] Oil stabilization funds are no panacea. They are not simple to properly administer, nor do they always assure an improved pattern of public expenditures (Davis, Ossowski, Daniel and Barnett, 2001).

Table 6
Saudi Arabian Fiscal Linkages:
Government Expenditures and Revenues

	1964-2001	1964-1980	1980-2001
Total Puplic Expenditures (government consumption and investment)			
Total Government Revenues			
Short Run	+	ins	+
Long-Run	+	ins	+
Public Consumption			
Total Government Revenues			
Short Run	+	ins	ins
Long-Run	+	ins	+
Public Investment			
Total Government Revenues			
Short Run	+	ins	+
Long-Run	+	ins	ins

Note: See Table 2.

4. Assessment

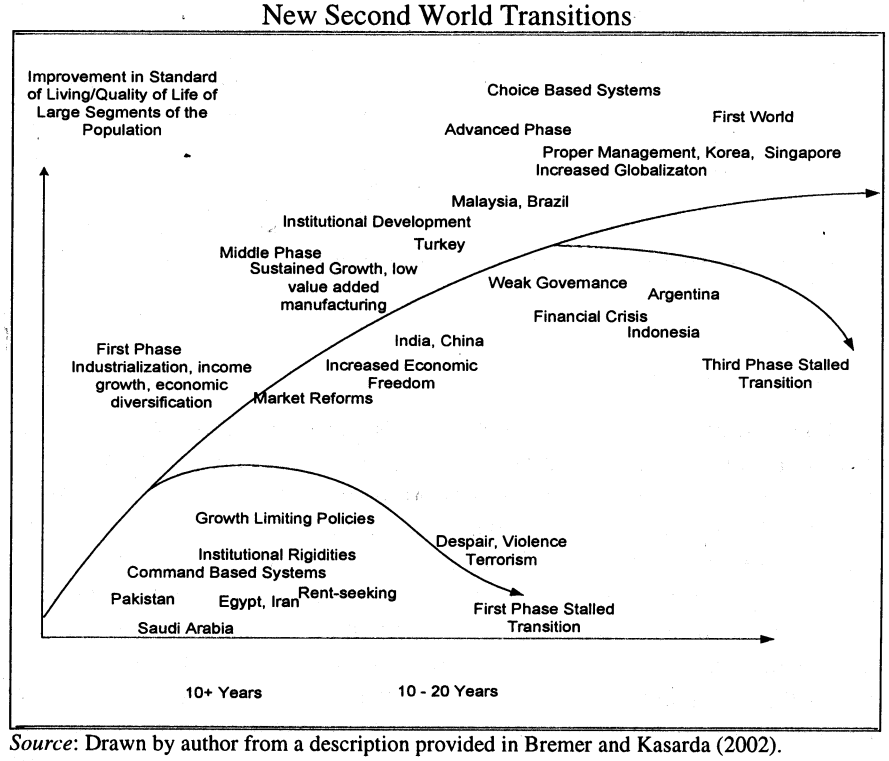
The findings noted above have a number of implications for economic policy in the kingdom. Clearly, government expenditures will have to be refocused on activities directly supportive of private sector investment. Despite the recent rise in oil revenues, the welfare state will have to be scaled back somewhat and higher priority given to economic budgetary allocations. More emphasis must be placed on efficiency and productivity in government activities. There is tremendous waste in government ministries that will have to be dealt with. A recent study (Ghafour, 2003) found that sixty-nine percent of civil servants in the Kingdom stay away from work without a good reason while 54 percent come to work late. An environment will have to be created that encourages investment and provides better incentives for risk taking and job creation.

In short, the economy will have to be made much more efficient and productive if it is to meet the needs and aspirations of Saudi population. In this regard a model of growth and terrorism developed by Bremer and Kasarda (2002)[7] may be suggestive of the tasks that lie ahead. Bremer and Kasarda see countries moving through three distinct stages as their economies evolve, become more sophisticated and market driven. By their criterion, Saudi Arabia falls in the first stage (along with countries such as Egypt Iran and Pakistan (Figure 6). This group has failed to move forward to the middle stage largely because of growth-limiting policies

[7] For an application of this model to Pakistan, see Looney (2003).

and institutional rigidities. The one thing that the nations stuck in the early phase have in common is slowness in adopting choice based systems. Bremer and Kasarda define 'choice-based' systems as encompassing both market-based economies and democratic political institutions and organizations.

Figure 6
New Second World Transitions



Source: Drawn by author from a description provided in Bremer and Kasarda (2002).

As in the case of Rostow's (1960) stage-theory of growth, a major limitation of Bremer and Kasarda's view of development is that it tends to be one-dimensional—countries must progress through the same set of reforms, tightly sequenced in a fairly strict period of time. There is an element of truth to the Bremer-Kasarda's approach and their placing Saudi Arabia in an early stage of evolution—progress does appear to have stalled. The fact remains however the Saudis have made considerable progress over the years in liberalizing their economy.

The critical question for Saudi policymakers is how best to build on the past. While recently coming under criticism in many quarters, the standard neo-liberal model (Looney, 2003) is still the main paradigm of

globalization. To provide the incentives to energize the private sector, the main economic task confronting Saudi policy makers will be in finding ways to modify and adopt the neo-liberal model to the kingdom's unique institutions so that growth can proceed in a non-disruptive manner.

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