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Employment Creation in an Oil-Based Economy: Kuwait

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If economic adjustment to lower oil revenues and the uncertainties created by the Iran Iraq war were the main constraints to Kuwait's growth in the 1980s, reconstruction from the Iraqi invasion, economic diversification and generating productive employment opportunities for a Kuwaiti population less dependent on foreign workers are the challenges of the 1990s. Development priorities for the remainder of the 1990s will include: reconstruction, mobilizing private sector resources, economic diversification and the creation of jobs for the growing number of young nationals coming into the labor market from universities. It is anticipated that rebuilding the economy will take between five to ten years.[1]

Employment creation is a critical factor. High population growth among Kuwait nationals has resulted in an age structure marked by extreme youthfulness. In 1985 almost 50 per cent of Kuwaiti citizens was under 15 years old, which implies that more Kuwait nationals will be entering the labor market in the 1990s. Moreover, these new arrivals on the labor market will have higher educational attainments and aspirations than their parents. Their expectations have been moulded by what has been an exceptional period of growth in the 70s and early 80s.

Assuming the country will be able to resume oil production in the near term, Kuwait's financial future in the 1990s seems moderately secure. Next to reconstruction, the related issues of employment and 'Kuwaitization' (the replacement of expatriate workers by Kuwaiti nationals) pose the biggest challenge to the government in the years ahead. Before the Iraqi invasion expatriates currently made up only a little less than two-thirds of the population. The room for Kuwaitization in the upper levels of the administration and the public sector was already limited since most of these positions were filled. In addition, government revenues are not anticipated to increase rapidly enough to create a significant number of new employment opportunities.

The dilemma faced by the government, therefore, is how to encourage the creation of private sector business which can simultaneously be economically viable and absorb the new educated generation. If this is

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not done, Kuwait risks turning into a society with a mass of skilled underemployed citizens living off the state's wealth.[2]

It follows that the private sector will be called upon to build on the foundations largely created by public sector expenditures. Here the conventional wisdom is that the opportunities opened up for investment by public infrastructure and other development expenditures will create adequate opportunities for the absorption of the increased number of workers entering the labor force. Hopefully, many of the new jobs will be in the industrial sector as opposed to the tendency in the pre-invasion period for new entrants to be absorbed in the service sector (both public and private).

Unfortunately, an increasingly large literature casts doubt on the ability of oil-financed government expenditures to provide a positive stimulus to the non-hydrocarbon sector and, in particular; industries that have to face foreign competition. This literature stresses disincentive effects associated with the resulting inflation and over-valuation (inflated purchasing power) of the domestic exchange rate.[3] The so-called Dutch Disease problem brings to question whether the net government expenditures have been particularly effective in providing for the country's longer-run indigenous employment needs.

The general purpose of the discussion below is to shed more light on the potential role of government expenditures in influencing industrial development in the post-invasion period. Based on Kuwait's experience before the invasion, the key questions are: did government expenditures stimulate increased levels of industrial output and employment; or, perhaps by diverting resources away from industrial activity, did these expenditures tend to depress the expansion of these sectors?

IMPACT OF GOVERNMENT EXPENDITURES ON INDUSTRIAL DIVERSIFICATION

With regard to the questions posed above, government expenditures, particularly direct investments in productive capacity, have obviously played a large and direct role in not only Kuwait's industrial expansion but also that of the other Gulf oil exporters. On the other hand, some of the side effects associated with this expenditure may have created an environment whereby the private sector will have difficulties competing on a profitable basis with foreign producers.

Specifically, government expenditures in oil-based economies have the potential to set off a chain of price effects, whereby the profitability of internationally traded goods falls relative to non-traded goods – the so-called 'Dutch Disease Effect'. The 'Dutch Disease' is a phenomenon

based on the experience of the Dutch economy with the large influx of North Sea gas revenues in the 1970s. Government spending of oil revenues causes prices of locally produced goods to increase relative to those traded internationally. These price changes induce labor and capital to shift from traded goods (industry and agriculture) to non-traded goods (mainly services and construction). In such an environment, petroleum-finance public sector expenditures result in expanded imports, and there is a decline in the relative price of traded goods. These patterns occur due to excess demand increasing the price of non-traded goods.[4]

Since firms producing non-traded goods by definition do not have to face international competition, they have the potential to maintain or even increase their profitability by passing on cost increases in the form of higher domestic prices for their products. Firms producing traded goods, on the other hand, do not have this option because they have to meet foreign competition. Government assistance in the form of import restrictions could alleviate this situation. However, in the Gulf region governments have in large part committed themselves to a free market approach rather than direct government intervention.

Whether or not the profitability of traded goods has fallen significantly in the Gulf states is, of course, ultimately an empirical matter. If this situation has developed, the potentially dynamic industries, such as manufacturing, will not be in a position to become the leading sectors many of the country's development plans envisage. Put differently, their expansion in employment and output in the 1990s will be suppressed below normal levels.

Previous studies have found some evidence in the region of the presence of the Dutch Disease.[4] The orientation of these studies was largely theoretical, however, with few (if any) policy ramifications considered. To overcome this limitation, the following sections examine the recent evolution of the Kuwaiti economy. Particular attention will be focused on identifying the existence of and policy implications associated with the Dutch Disease.

KUWAIT: PATTERNS OF ECONOMIC EXPANSION

The industrial evolution of Kuwait occurred in three discernible stages.[5] The first was the establishment of a wide range of construction materials industries in response to the government's plan to use its vast oil revenues to expand and improve the country's infrastructure.

The second was concentrated in consumer-oriented industries in response to the sharp increase in the demand for consumer goods, which

resulted from the substantial influx of immigrant workers required to build the country's infrastructure.

The third stage was represented by down-stream hydrocarbon industries, such as petroleum refining, fertilizers, petrochemicals and pharmaceuticals. The surge in these industries was effected by the government's attempt to harness the economy's comparative advantage in order to diversify the industrial sector, to reduce the country's dependence on crude oil exports, and to broaden the income base of the country.

The pre-invasion industrial sector in Kuwait could be segmented into four identifiable types of industrial activity:[6]

1. Industries with abundant local materials. This group of industries obtained its cost advantage primarily from the availability of basic raw materials at home. Based on the abundance of natural gas and oil, where the latter can be used as a source of energy as well as feedstock, a host of refined petroleum products and petrochemicals can be produced at home for export.

Some progress had already been achieved in the area of refined products and much can still be accomplished in intermediate and final petrochemicals. Similarly there are other industries whose major inputs are available at home, such as foam glass from solid waste, reclaimed rubber from discarded tires, oil lubricants from discarded automobile oil, leather from animal waste, etc. These activities possess a clear-cut comparative cost advantage.

2. Industries with natural trade protection. The basic assumption here is that the shipping cost of certain products from other countries may be sufficiently high to render local production economically competitive, for example, cement, asbestos pipes, bricks and aggregates. This assumption readily explains the high pre-invasion ranking achieved by the construction materials industry in the Kuwaiti economy. Industries producing non-traded goods, such as desalinated water, also flourished and expanded in response to population and commercial expansion.

3. Strategic industries. These industries do not necessarily belong to the two categories mentioned above. Whether or not they exhibit comparative advantage and/or are naturally protected from foreign competition, they were established to give the nation a measure of economic independence despite reliance on government subsidies, that is, processed food products, soft drinks, milk, bread and pharmaceuticals.

4. Industries with comparative cost advantage. Based on the optimal economic size and the sufficiency of the domestic demand, many industries may be competitive as a result of Kuwait's factor endowments *vis-à-vis* its trading partners. The basic premise here is that the structure

of Kuwait's factor prices relative to other countries would, in certain industries according to the relative cost of each input to a unit of output, make it advantageous to produce the product at home instead of importing it. Examples that existed in pre-invasion Kuwait included assembling central air conditioning units, printing, stationery, packaging materials, apparel, and automobile batteries.

The industrial sector in pre-invasion Kuwait accounted for around nine per cent of Gross Domestic Product (GDP). Much of this output was concentrated in the state-owned refineries, petrochemical installations, and in power and desalination plants, although the light manufacturing sector makes a more significant contribution to employment.

The rather small share that manufacturing industries contributed to Kuwait's non-oil GDP is usually attributable both to the small size of the country's population and to the fact that the government stood back from further local downstream industrialization of the oil and gas sector in recent years.

The rather slow growth of Kuwaiti manufacturing before the invasion (Table 1) is often attributed to small domestic markets. However, Al-Sabah's[7] analysis, while only covering the 1970s, points to the more fundamental Dutch Disease-related causes – the slow-down of manufacturing in the 1980s may simply be symptomatic of the residual effects of the pre-1982 oil boom.

Along these lines, it should be noted that while there are notable exceptions, many manufacturing firms grew faster in the pre-1975 years than in later periods. The reverse appears to be the case for many of the service-oriented sectors. Again these patterns suggest that the simple Dutch Disease explanation of growth in Kuwait does have validity. The patterns of sectoral growth are so varied, however, that additional factors need to be incorporated before a complete assessment of the factors responsible for the observed patterns of growth over the last decade and a half can be made.

The sectoral growth rates also indicate a considerable dichotomy between sectors, with those sectors consisting largely of non-traded goods growing faster (especially during the oil boom years of 1976–81) than sectors dominated by tradeable activities. These patterns appear to exist with regard to the underlying Dutch Disease mechanism of sectoral growth-differential rates of inflation between tradeables and non-tradeables.

During the period of highest inflation in Kuwait (1974–82), manufacturing sectors in general experienced much lower rates of inflation than their service sector counterparts. Many of the manufacturing activities did not have rates of inflation appreciably above their long-run average

TABLE 1

KUWAIT: SECTORAL GROWTH, 1977–1986
(Constant 1984 prices, million, K.D.)

	Growth			
Sector	1970/ 1986	1970/ 1974	1977/ 1986	1982/ 1986
Agriculture and Fishing				
Agriculture	12.4	10.6	27.8	27.3
Fishing	−4.6	3.4	−4.2	−7.3
Mining and quarrying	−1.3	33.49	−19.1	−13.1
Manufacturing				
Food, beverages and tobacco	4.5	3.5	7.2	7.9
Textiles, and apparel	3.9	31.2	3.0	−1.4
Wood and wood products	5.1	9.2	−6.1	−6.2
Paper, printing and publishing	8.1	12.7	0.6	−3.2
Petroleum refining	1.5	−2.1	5.9	8.8
Chemicals	6.3	43.3	−1.7	0.6
Non-metallic minerals	7.2	17.7	−0.4	−5.0
Basic metals	4.1	29.0	−15.2	−21.6
Fabricated metal products	6.6	14.8	3.2	−7.8
Other manufacturers	1.9	0.0	−5.2	0.0
Construction	3.1	7.5	−4.9	−14.0
Private Services				
Wholesale and retail trade	3.4	3.4	−0.7	−11.2
Hotels and restaurants	7.2	0.6	1.2	−10.1
Transport and storage	4.0	4.1	6.6	−8.7
Communications	13.2	14.3	18.9	0.8
Financial institutions	6.0	3.4	8.1	−0.1
Insurance	4.9	2.3	2.8	−1.1
Real estate	1.9	2.6	4.0	9.3
Personal and household	1.5	6.7	−0.1	−5.2
Public Services				
Public Administration and defense	2.5	10.2	3.1	3.4
Sanitary	5.1	5.3	9.8	4.4
Education	4.2	8.0	3.5	1.4
Health	4.2	4.5	5.9	2.4
Social Security and welfare	6.0	7.4	5.0	3.5
Recreational and cultural	2.7	3.8	2.8	1.8

Source: Computed from data in: State of Kuwait: Ministry of Planning, Central Statistical Office, *Annual Statistical Abstract, 1987*, pp.268–9.

TABLE 2

KUWAIT: SECTORAL INFLATION, 1970–1986
(Implicit GDP price deflators, 1984=100)

Sector	Value		Growth	
	1974	1982	1974/ 1982	1970/ 1986
Agriculture and Fishing				
Agriculture	0.631	1.180	8.14	5.66
Fishing	0.329	1.222	17.82	12.65
Mining and quarrying	0.593	0.952	6.10	5.24
Manufacturing				
Food, beverages and tobacco	0.603	0.969	6.11	5.78
Textiles, and apparel	0.628	0.996	5.93	6.16
Wood and wood products	0.634	0.912	4.64	4.87
Paper, printing and publishing	0.620	0.865	4.25	5.50
Petroleum refining	0.934	0.629	−4.82	16.59
Chemicals	0.517	0.890	7.02	6.01
Non-metallic minerals	0.652	0.997	5.45	5.38
Basic metals	0.804	0.973	2.41	5.06
Fabricated metal products	0.648	1.066	6.41	4.09
Other manufacturers	0.592	1.000	6.77	6.40
Construction	0.554	0.943	6.87	5.91
Private Services				
Wholesale and retail trade	0.581	0.961	6.49	5.71
Hotels and restaurants	0.337	0.785	11.15	8.35
Transport and storage	0.573	0.936	6.32	6.08
Communications	0.980	1.000	0.26	0.41
Financial Institutions				
Insurance	0.614	0.994	6.20	7.51
Real estate	0.416	2.349	24.15	6.16
Personal and household	0.324	0.863	13.02	8.80
Public Services				
Public Administration and defense	0.323	1.012	15.34	9.87
Sanitary	0.408	0.864	9.83	6.46
Education	0.360	0.855	11.41	8.98
Health	0.388	0.965	12.06	8.37
Social Security and welfare	0.306	0.901	14.45	10.98
Recreational and cultural	0.431	0.814	8.27	9.71

Source: Computed from data in: State of Kuwait: Ministry of Planning, Central Statistical Office, *Annual Statistical Abstract, 1987*, pp.268–9.

(1970–86) over this period. Again with several exceptions the service sectors tended to have appreciably higher inflation relative to their long-run average during the 1970–82 period (Table 2).

MECHANISMS OF ECONOMIC EXPANSION

Clearly the output of the various sectors of the Kuwaiti economy were simultaneously affected by a number of factors in addition to those related to the appreciation of the real exchange rate. These factors need to be controlled in order to obtain unbiased estimates of the Dutch Disease impact. It is assumed here that output of each sector is a function of the relative profitability of that sector, which in turn is a function of:

1. The Dutch Disease proper as proxied by the real exchange rate.
2. Sectoral output as between tradeables and non-tradeables, as proxied by the relative rate of sectoral inflation to that of the non-oil sectors of the economy as a whole.
3. Resource shift factors, as proxied by the expected[8] rate of inflation.
4. Government subsidies as proxied by subsidized electricity.
5. The general expansion in overall demand.

This last variable is simply included as a control variable: there may be slow-downs in sectoral activity not related to the Dutch Disease *per se*, but rather to the general fall in sectoral demand brought on by a decline in oil revenues and/or government expenditures. Its expected sign is positive.

In main findings of the analysis on sectoral growth[9] (Table 3) of the regression exercises indicate:[10]

1. Primary activities – agriculture, fishing, and mining – exhibit mixed results with agriculture and mining experiencing weak Dutch Disease effects, with fishing obtaining a positive stimulus from this effect. As noted Kuwait is largely self-sufficient in fish and in this sense, given transport costs, the sector is effectively comprised of non-tradeables.
2. Manufacturing activities exhibit a fairly consistent pattern. As anticipated, this sector, comprised largely of products that are tradeable, experienced generally negative impacts from an appreciating exchange rate, and an increase in relative prices.
3. As expected, services consisting largely of non-tradeables generally experienced positive Dutch Disease effects.

OTHER EXPLANATIONS

While the results of the analysis of movements in real exchange rates and relative prices indicated the pervasive presence of the Dutch Disease in Kuwait, it should be noted that output of most of the traded sectors has

TABLE 3
KUWAIT: FACTORS AFFECTING SECTORAL GROWTH

Sector	Dutch Disease	Relative Inflation	Expected Inflation	Economic Expansion
Agriculture				
Agriculture	−	−	−	ins
Fishing	+	ins	−	ins
Mining	−	ins	ins	+
Manufacturing				
Food	−	ins	ins	+
Textiles	−	−	+	+
Wood Products	−	ins	ins	+
Paper products	ins	−	+	+
Petroleum Ref.	−	ins	ins	ins
Chemicals	ins	−	ins	ins
Non-Metallic Min.	−	ins	ins	+
Basic Metals	ins	−	ins	ins
Fabricated Met.	−	ins	+	+
Other Manufacturing	−	−	ins	+
Construction	+	ins	+	+
Private Services				
Trade	ins	−	−	+
Hotels	+	−	+	+
Transport	+	−	−	ins
Communications	+	+	+	ins
Finance	+	ins	+	ins
Insurance	ins	ins	ins	+
Real Estate	+	ins	ins	ins
Services	+	ins	ins	ins
Public Services				
Public Administration	ins	ins	−	+
Sanitary	+	ins	+	+
Education	+	−	+	+
Health	+	ins	+	+
Social Security	+	ins	−	ins
Recreation	ins	+	+	ins

Note: (+) = positive impact on sectoral output and employment; (−) = negative impact on sectoral output and employment; (ins) = no or little impact on sectoral output and employment. Those sectors receiving a positive stimulus from subsidised electricity were: (a) agriculture, (b) food, (c) textiles, and (d) petroleum refining.

continued to decline even during the post-1982 period of real exchange depreciation. Does this mean that the Dutch Disease effects produced during the period of an appreciating exchange rate created irreversible disincentives to manufacturing and thus the ability of this sector to create jobs?

Here it should be noted that the slow-down in industry in Kuwait since 1982 may have been due to once-and-for-all factors, albeit ones sufficient to offset the stimulating effect of the 'Reverse Dutch Disease'. In particular, a number of disappointments have been attributed to both bad management and depressed trading conditions in Kuwait that have followed the Souk al-Manakh crisis and the collapse of the Iraqi market.

The slow growth of Kuwaiti industries prior to the invasion has also been attributed to the fact that:[11]

1. Mistakes were committed in the planning stages owing to incomplete economic, technical and marketing studies, and this resulted in huge industrial losses with the selling price of some commodities becoming 40 per cent lower than forecast.
2. Some studies even failed to determine the production capacity of projects. Some studies expected factories to reach maximum production within a short period and overlooked the link between production growth and labor on the one hand and market demand on the other.
3. Some industrial projects did not get sufficient land for their activities or failed to obtain official permission. An important obstacle has been the almost complete lack of co-ordination among industrial projects, resulting in the establishment of several similar industries at the same time. This increased competition and created subsequent problems.
4. Some industrial projects in the form of shareholding companies or individual projects faced financing problems. The owners could not obtain the required capital and depended on bank loans for which they paid high interest rates, thus reducing profitability.
5. The Kuwaiti market has a high purchasing power but low sales because of the small population. This problem could have been overcome by exports to other Gulf markets, but lack of co-ordination has resulted in duplication of industries. The world economic situation in the early 1980s also harmed local industries, as the recession forced companies to reduce the price of their exports while at the same time facing increased volumes of imports at reduced prices.

Of course, due to the invasion (except for the still relatively small size of the domestic market), these factors are to a large extent no longer present. However, the government will have to be aware of these

potential problems and pursue policies that avoid a repeat of past mistakes.

CONCLUSIONS

As oil revenues resume in the near future, there are at least two approaches towards reconstruction. One strategy would be for the government to use its income to build up a viable and self-sufficient economy based on its own resources. An alternative approach would be to return to the country's underlying strategy since the mid-1970s of investing revenues abroad and living off that income. If the above results are an accurate picture of mechanisms at work in the Kuwaiti economy, the second school of thought appears correct.

This leads to a rather pessimistic assessment of the future. Eventually large numbers of national workforce entrants, denied their first choice of public sector employment, will seek other opportunities for the private sector. Given an environment likely to possess Dutch Disease characteristics, most of these jobs will have to be in the service sector, mainly finance. This reality is reinforced by the fact that rising budget deficits will limit the government's ability to create new public sector jobs for new graduates as they had in the past. The earlier policies had resulted in enormous over-staffing of government institutions. The new realities dominating the Kuwaiti labor market in the 1990s will lead nationals to seek those opportunities available in the market place, namely technical jobs and the more remunerative openings in the private sector.

As the number of school and university graduates increases in the early 1990s, while job preferences remain narrow, unemployment among the youth will become more visible or at least long job-search periods will surface. Such unemployment will result from the artificially high expectations of labor market entrants; the declining attraction of wage rates in the private sector; concern to limit the expansion of the public sector, combined with a mismatch between educational qualifications and skill requirements.

NOTES

1. Katya Maddison, 'Kuwait: Like a Phoenix from the Ashes', *The Middle East* (March 1991), p.33.
2. Pat Lancaster, 'Kuwait: Getting Back to Business', *The Middle East* (March 1990), p.26.
3. See for example: Paul Stevens, 'The Impact of Oil on the Role of the State in Economic Development: A Case Study of the Arab World', *Arab Affairs* (Summer 1986), pp.72–87.

4. An excellent description of this phenomenon is given in Paul Stevens, 'The Impact of Oil on the Role of the State in Economic Development: A Case Study of the Arab World', *Arab Affairs* (Summer 1986), pp.72–86. See for example: Ahead Gauzier, 'Prices and Output in Two Oil Based Economies: the Dutch Disease in Iran and Nigeria', *ID Bulletin* (Oct, 1986), pp.14–21; Robert E. Looney, 'Oil Revenues and Viable Development Impact of the Dutch Disease on Saudi Arabian Diversification Efforts', *American Arab Affairs* (Winter 1988/89), pp.29–35; and Mohammad Al-Sabah, 'Dutch Disease in an Oil Exporting Country: Kuwait', *OPEC Review* (Summer 1989), pp.129–44.
5. Maurice Gorgeous, *Industrial Progress in Small Oil-Exporting Countries* (Boulder, Colorado: Westview Press, 1984), pp.5–6.
6. Ibid., pp.7–8.
7. 'The Dutch Disease in an Oil Exporting Country: Kuwait', op. cit.
8. The expected rate of inflation is estimated by regressing the private sector price deflator on its value for the previous year.
9. The full set of regression results are available from the author upon request.
10. Regressions for each sector were performed with a Cochraine-Orcutt iterative estimation procedure to correct for serial co tion. All variables were in constant 1984 prices.
11. *Arab Industry Review, 1987/88*, pp.107–108.