



JOURNAL OF ECONOMIC COOPERATION AMONG ISLAMIC COUNTRIES

Contents

ARTICLES

AHMAD MOHAMED ALI

The Role of the IDB in the Development Process of
its Member Countries 1

MASUDUL ALAM CHOUDHURY

An Islamic Econometric Model for Malaysia
with Policy Conclusions 23

ABDELRAHMAN ZEINELABDIN

Intergovernmental Capital Flows in OIC Countries
and Their Determinants: Recent Experience
and Future Prospects 55

ROBERT E. LOONEY

An Assessment of the Benefits of Economic
Integration for the Arabian Gulf States:
The Effects of Increased Size 81

BIBLIOGRAPHY

Selected Abstracts from SESRTCIC's Articles Database 103

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 1989	2. REPORT TYPE	3. DATES COVERED 00-00-1989 to 00-00-1989		
4. TITLE AND SUBTITLE An Assessment of the Benefits of Economic Integration for the Arabian Gulf States: The Effects of Increased Size		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School, Monterey, CA		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)		
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified		18. NUMBER OF PAGES 22
				19a. NAME OF RESPONSIBLE PERSON

AN ASSESSMENT OF THE BENEFITS OF ECONOMIC INTEGRATION FOR THE ARABIAN GULF STATES: THE EFFECTS OF INCREASED SIZE

Robert E. Looney*

The purpose of this paper is to assess the potential advantages of economic integration, and in particular of the resulting economies of scale, for the GCC members. What factors have contributed to limiting the size of individual country markets for industrial products? How important has economic size been in limiting the industrial diversification efforts of the member states? Which states would benefit the most from economic integration?

The main findings of the study are that economic size, especially the small populations of these countries is increasingly limiting the opportunity for expanding industrial output. As a result, increased income has become a major stimulus for non-industrial activities--services/distribution/ and construction, all of which do not appear to be particularly sensitive to economies of scale. Economic integration is particularly important also given the declining ability of an increasing share of domestic expenditures to stimulate industrial output, i.e., the scope for easy import substitution may be over for most of these countries.

1. INTRODUCTION

Since the signing on 25 May 1981 of the Unified Economic Agreement (UEA) Charter creating the Gulf Cooperation Council, the GCC has had a growing impact on the economic life of its member states: Saudi Arabia, Kuwait, Bahrain, Qatar, Oman and the UAE.

Gulf cooperation, however, predated the creation of the GCC. A number of the joint committees and vehicles were formed in the 1970s and included Iraq as well as the GCC states. The Doha based Gulf Organization for Industrial Consulting (GOIC) was set up by the seven countries in 1976. GOIC helps to establish new industries (such as the Gulf Aluminum Rolling Mill (Garmco) in Bahrain. Other Gulf joint ventures that predated the creation of the GCC include Gulf Air, the United Arab Shipping Company, Gulf International Bank and

* The author is Professor at Naval Postgraduate School, Monterey, California.

the Arab Shipbuilding and Repair Yard (owned by the Organization of Arab Petroleum Exporting Countries, OAPEC).

The impetus towards Gulf cooperation was thus already well advanced when the GCC was formed, but the UEA took the process much further, aiming ultimately at developing a single regional economy. Its six main provisions deal with: (a) trade; (b) freedom of movement of capital, individuals and economic activities; (c) coordination of development; (d) technical cooperation; (e) transport and communications; and (f) financial and monetary cooperation. The agreement was complemented by the Gulf Investment Corporation (GIC), which was created in 1982 and began operation in 1984. Based in Kuwait, the GIC has authorized a capital of \$2.1 billion, of which \$540 million is paid in, and is mandated to invest in regional products.

The main goal of the GCC states has been to diversify their economic structures and reduce their dependence on exports of crude oil. However, given that oil and gas are the only resources available to them, "basic" or "resource-based" industrialization was chosen as the best option, rather than investment in foreign assets or oil conservation policies.

The GCC argues that the first option would encourage downstream manufacturing and related activities conducive to the transformation of the societies and their economic structures. As Al-Yousuf has noted (Al-Yousuf, 1986, p.25), the costs associated with such policies are very high, whether these costs are measured in monetary or social (environmental, cultural, religious, etc.) terms.

There seems to be a consensus on the need for some cooperation or coordination among the GCC states to minimize the costs of economic change. There are two main forms of economic integration: a more general one, namely the customs union, and a more specific one, namely the joint product approach to sectoral integration. The former provides the economic rationale whereas the latter provides the modality (Al-Yousuf, 1986, pp.25-26).

The purpose of this paper is to assess the potential advantages of economic integration, and in particular of the resulting economies of scale, for the GCC members. What factors have contributed to limiting the size of individual country markets for industrial

products? How important has economic size been in limiting the industrial diversification efforts of the member states? Which states would benefit the most from economic integration?

2. BENEFITS FROM ECONOMIC INTEGRATION

The traditional welfare effects of integration are trade creation and trade diversion. By eliminating tariffs on imports from partners, a member will increase total imports. Thus trade creation will have a welfare benefit related to the degree of protection formerly in place. At the same time, the country may switch purchases away from the world market toward its GCC partners as a result of the elimination of tariffs on the partners' goods. This substitution, trade diversion, causes a welfare cost to the country as it replaces low-cost world market supply with higher priced partner supply. The cost depends on the differences between the partner's price and the world price.

In addition to these two traditional static welfare effects, several other effects stemming from the formation of a regional common market are of potential significance:

1. labour opportunity cost;
2. economies of scale;
3. foreign exchange scarcity.

Integration causes the country to export more (or new) goods to its partners. The resulting increase in output will bring a windfall gain insofar as:

1. labor costs contained in the final price of this output exceed labor's "social" or "scarcity" cost;
2. the increment in output may be achieved with less than proportional increase in inputs due to the exploitation of economies of scale;

Finally, if the country increases its exports to partners at no expense to its exports to the rest of the world, and at the same time increases by a smaller amount (or even holds constant) its

total imports (although replacing world supply with partner supply), the country will enjoy a relaxation of its foreign exchange constraint. While *ex-post* total imports will rise to equal the new higher availability of foreign exchange, in the process the additional scarce imported inputs necessary to raise GNP will have been provided; the resulting increase in GNP constitutes the "foreign exchange scarcity" welfare gain.

These five effects are static in that they represent once-and-for-all outward shifts in the country's production possibility frontier, given its resources. In addition, there are dynamic effects, the most important of which are:

1. structural transformation of the economy (e.g., a shift from traditional exports to industrial production);
2. the investment effect which results from the inflow of foreign investment, and the stimulus to domestic investment, which would not have occurred in the absence of the market stimulus provided by formation of the common market.
3. the efficiency-prodding influence of competition resulting from the freeing of imports for at least the goods of partners.

The analysis below attempts to identify the benefits to the member states of easing the size barrier to industrial expansion.

3. CHARACTERISTICS OF THE GCC COUNTRIES

The GCC countries share a number of common characteristics and limitations to further industrialization (El-Kuwaiz, 1987, pp.76-77):

1. The six member nations are overly dependent on the export of crude oil.
2. Although the private sector has increased its share in the gross domestic product of the GCC states from around 30 per cent in the early 1970s to almost 55 per cent in the mid-1980s, its role in the industrialization process is still below what it should be.

3. Given GCC geographic and economic constraints, the group still faces a chronic scarcity of both skilled and unskilled human resources.
4. The GCC's domestic markets are limited and highly scattered.
5. If the GCC concentrates on international markets, it has to compete vigorously with the well-established manufacturers in both industrial and developing countries. It also has to enter into contractual agreements dealing with the very complicated subject of international trade, an area for which the GCC as an organization and its member states individually have little acquired or long-term expertise.
6. Other than hydrocarbons, the GCC has limited mineral resources and a scarcity of water.
7. Although almost all infrastructure facilities are in place in the Arabian Gulf, interconnection among these facilities is almost non-existent.
8. Industrial regulations and legislation as well as industrial incentives are different in nature and application in each of the member states.
9. The Arabian Gulf states do not have an indigenous technological base with which to encourage industrial growth and development.

In terms of the region's integration experience (El-Kuwaiz, 1987, p.77):

1. The main decisions regarding application of national resources are still made on the national level. The issue of national sovereignty is very dear to the people and leadership in each of the six Gulf states.
2. The GCC, as a regional integration institution, does not have power over national entities. In other words, there is as yet no GCC supranational government with which regional development priorities can effectively supersede national ones.

As El-Kuwaiz notes, a general concensus among economists is that economic integration among nations presupposes a certain degree of complementarity; it requires division of labour, mobilization factors of production and facilitation of movements of goods across borders.

The GCC experience, however, is quite different. The GCC member states more or less are trading in one line of production, i.e., the export of oil and petroleum products. They all import their consumer, industrial and other required goods from major industrial areas. By implication, interstate trade in the Gulf to any great degree is missing. Thus, liberalization of trade by itself would not create economic integration similar to, say the European Economic Community, as targeted in both the GCC Charter and the Unified Economic Agreement (El-Kuwaiz, 1987, p.77).

Given this situation, most of the benefits of integration must by necessity arise from the creation of new consumer industries which, by taking advantage of economies of scale through regional trade, will be more profitable as the integration process develops.

The importance of economies of scale in the industrial process of Arab countries has been confirmed in a major study by M. M. Metwally (Bowers, 1979, pp.149-172). After citing a number of cases where production was not possible because of limited domestic markets, Metwally concluded that a common market between the Arab countries:

Through the pooling of markets would encourage appreciably the development of large-scale manufactures. This would hasten growth. So too would the intensification of competition if its effect was to increase the efficiency of operation of existing industries and hence to initiate a higher sustained growth of productivity.

The above arguments, while powerful, may not convince the Arab countries to put aside their political differences and consider carefully their new frontier. The backwash effects of an Arab Common Market or an Arab Customs Union cannot be ignored. But these effects never outweigh the advantages to be gained from concerted action (Metwally, 1979, p.162).

4. EMPIRICAL ESTIMATES

The Gulf States' accomplishments in the area of industrial diversification are impressive when compared with the progress made by other Arab countries. For the basis of comparison, an analysis was made of the movements over time of the four main components of non-oil Gross Domestic Product: manufacturing, construction, services and the distributional sectors. Here, the distributional sectors consist of: (a) commerce, restaurants, and hotels, (b) transportation, commerce and storage, and (c) finance, insurance and banking. Services include: (a) housing, (b) government services, and (c) other services.

There are serious problems in using movements in sectoral output percentages of Gross Domestic Product as a measure of structural change in the Arabian Gulf. In particular, because of the dominance of hydrocarbons in the economies of most of these countries, movements identified by this ratio may be more sensitive to developments in the oil sector, rather than expansion (or contraction) of individual non-oil sectors. However, the selection of an alternative definition of sectoral output--share of non-oil GDP, share of Arab world industrial production, etc., would be arbitrary. To overcome these problems, an index was created for each of the four main sectoral inputs. The index was formed from two measures of each sector's output: (a) share of non-oil GDP, and (b) absorption (total consumption and investment expenditures).

To avoid using a simple arbitrary weighting system, an orthogonal factor analysis was made on the eight observations for each of three years: (a) 1975, the beginning of the oil boom, (b) 1981, the end of the oil boom, and (c) 1985, the last year for which comparable data were available. The data sample was taken from the Arab Monetary Fund (Arab Monetary Fund, 1987) and included the twenty Arab members of the Fund.

The factor analysis identified four main trends in the data. As it turned out, the sectoral shares of non-oil GDP and absorption are correlated closely enough so that each of the factors represented one of the four main sectors. The resulting factor scores for each sector (sectorial dimension, Tables 1-3), therefore, represent the relative* ranking of each of the twenty countries in terms of the degree of

* Only the results for the Gulf countries are reported here.

development of each sector relative to the other nineteen Arab countries included in the sample (only the results for the six GCC countries, together with Libya are presented here).

More specifically, the factor scores have a mean of zero. The country with the highest positive factor score on a particular sector possesses the largest share (relative to the other nineteen countries) of that sector in its economy. Similarly, the country with the lowest (negative) factor score has the smallest share of that sector in its economy. The rest of the countries will rank in between.

To determine the relative importance of economic size on the sectoral development of the sample countries, several additional steps were required:

1. Measures of economic size were introduced into the factor analysis. Here, the proxies used for economic size were: (a) the share of GDP of Arab world population accounted for by each country, and (b) the share of Arab world population possessed by each country.
2. The combined impact of income and population were determined by: (a) computing the resulting factor scores for each country with these variables in the factor analysis, and (b) comparing the results with those obtained from the simple factor containing only sectoral variables.
3. The individual relative importance of income and population were derived in a manner identical to (2) above.
4. As a basis of comparison, estimates were made of the effect of domestic expenditures on Gulf industrial diversification efforts. Here, domestic expenditures (absorption--total consumption and investment minus imports) as a percentage of absorption were introduced into the sectoral factor analysis. The factor scores thus obtained were compared with the sectoral factor analysis. The factor scores thus obtained were compared with the sectoral dimension in a manner similar to (2) above.

Several interesting trends were identified. At the beginning of the period under consideration, 1975 (Table 1):

1. Bahrain was by far the leading Gulf country in terms of the relative development of its manufacturing sector. In fact, Saudi Arabia was the only other country that even remotely approached Bahrain in terms of the degree of industrial diversification.

2. While Qatar and Kuwait had positive factor scores on manufacturing, thus identifying these countries as relatively industrialized compared to the Arab world countries as a whole, the UAE and Oman had very high negative factor scores, placing them among the least industrialized Arab world countries.

3. As might have been anticipated, the Gulf countries were characterized by relative development of their oil revenue financed construction and service sectors. With the notable exception of the UAE and Qatar, distributive trades were underdeveloped in the Gulf.

By 1980 (Table 2):

1. Although losing a bit of its initial lead in relative industrial development, Bahrain still led the other Gulf countries in the share of economic activity accounted for by manufacturing.

2. Largely as a result of initiating a large oil financed investment programme, the UAE had made the most dramatic gains toward industrial diversification.

3. While still possessing uniformly high levels of development of the service and construction sectors, most Gulf states began to show significant development of their distributive activities.

Table 1
 Arab World: Effects of Economic Size on Relative Industrialization, 1975
 (Standardized Regression Coefficients)

	Factor1 Manufact.	Factor2 Construct.	Factor3 Distrib.	Factor4 Population
Oil Economies	Sectoral Dimension			
manufact/gdp	0.93*	-0.11	0.09	0.14
services/absor	0.91*	0.00	0.08	-0.34
manufact/absor	0.89*	-0.15	0.26	0.23
construct/absor	-0.07	0.91*	0.32	-0.01
construct/gdp	-0.23	0.90*	0.12	-0.12
Share of GDP	0.28	0.71*	-0.45	0.39
distribut/abs	0.30	0.10	0.97*	0.35
distribut/gdp	0.05	0.34	0.76*	-0.23
Share of Population	0.10	0.02	-0.12	0.84*
services\gdp	0.59	0.10	-0.34	-0.69*

(Factor Scores)

	Factor1 Manufact.	Factor2 Construct.	Factor3 Distrib.	Factor4 Serv.
Oil Economies	Sectoral Dimension			
UAE	-1.15	2.00	1.88	-0.90
Bahrain	2.74	-0.35	0.91	-0.01
Saudi Arabia	0.90	1.06	-1.00	0.65
Oman	-1.53	1.10	-0.21	0.59
Qatar	0.27	1.82	1.84	0.13
Kuwait	0.05	-0.83	-0.50	2.08
Libya	-0.73	0.98	-0.60	1.35

Oil Economies Income and Population Effects

UAE	-1.33 (-)	1.73 (-)	1.63 (-)
Bahrain	2.10 (-)	-0.69 (-)	1.26 (+)
Saudi Arabia	1.40 (+)	1.94 (+)	-1.69 (-)
Oman	-1.22 (+)	0.83 (-)	-0.25 (=)
Qatar	0.04 (-)	1.20 (-)	1.79 (=)
Kuwait	0.86 (+)	-0.18 (+)	-1.22 (-)
Libya	-0.14 (+)	1.08 (+)	-0.96 (-)

Note: (a) Sectoral Dimension = country scores derived from factor analysis omitting population and income effects.

(b) () indicates movement in ranking relative to sector dimension factor scores.

Table 2

Arab World: Effects of Economic Size on Relative Industrialization, 1980
(Standardized Regression Coefficients)

	Factor1 Construct.	Factor2 Manufact.	Factor3 Serv.	Factor4 Distrib.
Oil Economies	Sectoral Dimension			
construct/gdp	0.94*	-0.17	0.08	0.12
Share of GDP	0.93*	0.24	-0.15	-0.26
construct/absor	0.90*	-0.01	0.12	0.20
manufact/absor	-0.08*	0.93*	0.08	0.12
manufact/gdp	0.11	0.92*	0.09	0.05
services/gdp	0.16	0.03	0.94*	-0.13
services/absor	-0.09	0.38	0.86*	-0.04
Share of Population	0.07	0.58*	-0.64*	-0.11
distribut/gdp	0.16	-0.07	-0.06	0.96*
distribut/absor	-0.12	0.36	0.07	0.87*

(Factor Scores)

	Factor1 Manufact.	Factor2 Construct.	Factor3 Distrib.	Factor4 Serv.
Oil Economies	Sectoral Dimension			
UAE	-0.22	1.68	1.47	-0.81
Bahrain	2.26	-0.33	1.94	0.56
Saudi Arabia	0.02	2.07	-0.95	0.24
Oman	-1.82	0.19	1.27	0.10
Qatar	0.06	0.67	0.97	2.07
Kuwait	0.70	-0.24	0.32	1.52
Libya	-1.10	1.23	-0.91	0.65

Oil Economies	Income and Population			
UAE	-0.61 (-)	1.25 (-)	1.71 (+)	-0.32 (+)
Bahrain	1.73 (-)	-0.50 (-)	1.97 (=)	0.88 (+)
Saudi Arabia	0.20 (+)	2.66 (+)	-1.12 (-)	0.05 (-)
Oman	-1.74 (=)	-0.06 (-)	1.32 (=)	0.25 (+)
Qatar	0.02 (=)	0.29 (-)	1.08 (+)	2.02 (=)
Kuwait	0.66 (=)	-0.10 (-)	0.22 (-)	1.45 (=)
Libya	-1.04 (=)	1.04 (-)	-0.73 (-)	0.68 (=)

Note: (a) Sectoral Dimension = country scores derived from factor analysis omitting population and income effects.

(b) () indicates movement in ranking relative to sector dimension factor scores.

Table 3
Arab World: Effects of Economic
Size on Relative Industrialization, 1985
(Standardized Regression Coefficients)

	Factor1 Construct.	Factor2 Manufact.	Factor3 Serv.	Factor4 Distrib.
Oil Economies Sectoral Dimension				
Construct/gdp	0.96*	-0.17	0.13	0.07
construct/absor	0.85*	-0.03	0.22	0.16
Share of GDP	0.83*	0.32	-0.23	-0.20
manufact/absor	-0.09	0.87*	0.27	0.16
manufact/gdp	0.04	0.85*	0.23	0.07
Share of Population	0.05	0.76*	-0.52*	-0.11
services/absor	-0.02	0.20	0.94*	-0.07
services/gdp	0.13	0.02	0.91*	-0.16
distribut/absor	0.11	-0.05	-0.15	0.95*
distribut/gdp	-0.06	0.21	0.08	0.93*

(Factor Scores)

	Factor1 Manufact.	Factor2 Construct.	Factor3 Distrib.	Factor4 Serv.
Oil Economies Sectorial Dimension				
UAE	1.37	1.23	1.34	-0.02
Bahrain	0.86	0.40	1.96	0.59
Saudi Arabia	-0.16	1.60	-0.78	0.57
Oman	-1.53	0.39	1.11	0.23
Qatar	0.79	0.29	0.16	2.75
Kuwait	-0.42	-0.87	-0.22	1.00
Libya	-0.94	1.53	-0.83	1.04

	Income and Size Effects			
Oil Economies				
UAE	0.66 (-)	0.90 (-)	1.58 (+)	0.55 (+)
Bahrain	0.24 (-)	-0.02 (-)	2.12 (+)	0.99 (+)
Saudi Arabia	0.21 (+)	2.24 (+)	-1.02 (-)	0.12 (-)
Oman	-1.49 (=)	0.22 (-)	1.05 (=)	0.14 (=)
Qatar	0.31 (-)	-0.11 (-)	0.39 (+)	2.67 (=)
Kuwait	-0.38 (=)	-0.61 (+)	-0.33 (-)	0.72 (=)
Libya	-0.99 (=)	1.24 (-)	-0.68 (-)	0.91 (-)

Note: (a) Sectoral Dimension = country scores derived from factor analysis omitting population and income effects.
(b) () indicates movement in ranking relative to sector dimension factor scores.

Finally, by 1985 (Table 3):

1. Partially as a result of oil based expansion in neighbouring countries, particularly the UAE and Qatar, Bahrain had suffered a significant decline in its level of industrial diversification.

2. In general, over the ten year period between 1975 and 1985, the Gulf countries were most successful at expanding their construction sectors. They also had significant expansions of their distribution and service sectors, but lagged in their industrial diversification efforts.

To determine the role of economic size in affecting the sectoral patterns described above, population and income variables were added to the four sector factor analysis. As noted earlier, both population and size variables were specified as the country share of each in the Arab world. The results (top of Tables 1-3) indicate that in recent years population has had the greatest impact on industrial diversification, with GDP more highly correlated with construction activity. Specifically:

1. In 1975 neither GDP nor population were highly associated with industrial diversification. At this time, GDP was becoming associated with the development of construction activities, while larger populations were not necessarily associated with any one sector's development.

2. In fact, population was an independent dimension in the data, with manufacturing and service activities highly correlated, i.e., the development of manufacturing was highly correlated with expansion of service sector activities (or vice versa).

By 1980 (Table 2):

1. Manufacturing was increasingly associated with patterns of income and population, with the standardized regression coefficient of population (0.58) about twice as high as that for income (0.24).

2. Development of the construction sector was increasingly a function of income, while larger populations were not associated with sector expansion other than in the industrial areas.

By 1985 (Table 3), the picture had stabilized to the extent that:

1. There was a strong association with market size, as proxied by population and relative industrial diversification.
2. Higher levels of income were an important factor in facilitating industrial diversification, but only to half the extent of population.

In terms of individual countries, size effects (combined population and income effects) were significant for many of the GCC countries. Since both income and size were correlated with industrial diversification, a higher factor score with these variables included in the factor analysis (relative to that obtained with these variables omitted) indicated the degree to which industrial diversification had been aided by relatively large markets:

1. In 1975 (Table 1), Saudi Arabia achieved the biggest stimulus from market size, with Kuwait also benefiting from its overall level of population and income. On the other hand, the industrial diversification of Bahrain, Qatar and the UAE was considerably below what it might have been in the context of expanded populations/income.
2. By 1980 (Table 2) the industrial diversification efforts of the UAE and Bahrain were becoming constrained by their limited economic size. While Saudi Arabia was enjoying increased benefits from its relatively large economic size, these advantages were less than those enjoyed in 1975.
3. Finally, in 1985, the situation had further deteriorated for the UAE, Bahrain and Qatar. Each of these countries had considerable absolute expansion in manufacturing activity, but clearly this expansion was below what would likely have taken place in a larger market environment.
4. Economic size played a relatively minor role in influencing non-manufacturing sectoral patterns of output.

In terms of the individual components (population, income) of economic size:

1. Income was initially (1975, Table 4) the stronger of the two, giving particular stimulus in the UAE, Bahrain and Oman to industrial diversification efforts.
2. At the same time Qatar and Kuwait would have achieved greater industrial diversification if their incomes had been greater.
3. Given the pattern of industrial development at this time, population was not a major factor in either aiding or hindering industrial activities. Apparently, given the types of local consumer good industries, economies of scale were not a major factor in affecting profitability in manufacturing.
4. By 1980 (Table 5), both population and income effects were constraining industrial diversification in the UAE and Bahrain. Saudi Arabia was also finding population a factor constraining its industrialization efforts.
5. Finally, in 1985 (Table 6) Kuwait and Saudi Arabia were experiencing positive income effects on industrial activity, with Saudi Arabia also receiving a slight stimulus from the relatively large size of its population. The industrial diversification in the UAE, Qatar and Bahrain was constrained by both small populations and limited incomes. Kuwait was now experiencing a retarding effect on its industrialization as a result of its relatively small population.

To a certain extent, the GCC countries have been able to contain the problems presented by their relatively small economic sizes, through expanding domestic expenditures, i.e., import substitution policies re-directing demand from imports towards new local producers. This effect is measured by the impact of domestic expenditures as a share of total absorption on sectoral output:

1. In 1975 (Table 4), the UAE, Bahrain and Oman were able to take advantage of the stimulating effects stemming from the large proportion of their expenditures that was oriented towards the domestic market.
2. By 1980 (Table 5), however, only Bahrain was continuing to use the domestic market effectively in expanding industrial output.

3. Finally in 1985 (Table 6) Oman and Qatar had managed to offset some of their size disadvantages by expanding the proportion of expenditures allocated to domestic goods. Given the limited oil reserves of each country, the scope of offsetting the disadvantages of size must be considered somewhat limited.

Table 5
Bahrain: Effects of Economic
Size on Relative Industrialization, 1980

(Factor Scores)

	Factor1 Manufact.	Factor2 Construct.	Factor3 Distrib.	Factor4 Serv.
Oil Economies				
Sectoral Dimension				
UAE	-0.22	1.68	1.47	-0.81
Bahrain	2.26	-0.33	1.94	0.56
Saudi Arabia	0.02	2.07	-0.95	0.24
Oman	-1.82	0.19	1.27	0.10
Qatar	0.06	0.67	0.97	2.07
Kuwait	0.70	-0.24	0.32	1.52
Libya	-1.10	1.23	-0.91	0.65
Oil Economies				
Income Effect				
UAE	-0.36 (-)	1.29 (-)	1.62 (+)	-0.66 (+)
Bahrain	2.13 (-)	-0.46 (=)	1.87 (=)	0.58 (=)
Saudi Arabia	0.17 (+)	2.65 (+)	-1.11 (-)	0.12 (-)
Oman	-1.84 (=)	-0.05 (-)	1.33 (=)	0.17 (=)
Qatar	-0.03 (=)	0.29 (-)	1.13 (+)	2.14 (=)
Kuwait	0.74 (=)	-0.09 (+)	0.21 (-)	1.44 (=)
Libya	-1.17 (=)	1.05 (-)	-0.72 (-)	0.71 (=)
Oil Economies				
Population Effect				
UAE	-0.49 (-)	1.65 (=)	1.56 (=)	-0.46 (-)
Bahrain	1.81 (-)	-0.34 (=)	2.05 (+)	0.88 (+)
Saudi Arabia	0.07 (-)	2.09 (=)	-0.96 (=)	0.18 (=)
Oman	-1.74 (=)	0.18 (-)	1.28 (=)	0.18 (=)
Qatar	0.13 (=)	0.67 (=)	0.94 (=)	1.96 (+)
Kuwait	0.62 (=)	-0.26 (=)	0.34 (=)	1.54 (+)
Libya	-1.00 (=)	1.22 (=)	-0.92 (=)	0.62 (=)
Oil Economies				
Domestic Expenditure Effect				
UAE	-0.26 (=)	1.66 (=)	1.36 (-)	-0.82 (=)
Bahrain	2.37 (+)	-0.27 (=)	2.44 (+)	0.66 (+)
Saudi Arabia	0.08 (=)	2.09 (=)	-0.73 (-)	0.28 (=)
Oman	-1.87 (=)	0.18 (-)	1.10 (-)	0.06 (=)
Qatar	0.00 (=)	0.66 (=)	0.77 (-)	2.01 (=)
Kuwait	0.71 (=)	-0.23 (=)	0.45 (+)	1.53 (=)
Libya	-1.04 (=)	1.24 (=)	-0.74 (+)	0.68 (=)

Note: () indicates movement in ranking relative to sector dimension factor scores.

Table 6
Bahrain: Effects of Economic
Size on Relative Industrialization, 1985

(Factor Scores)

	Factor1 Manufact.	Factor2 Construct.	Factor3 Distribut.	Factor4 Serv.
Sectorial Dimension				
Oil Economies				
UAE	1.37	1.23	1.34	-0.02
Bahrain	0.86	0.40	1.96	0.59
Saudi Arabia	-0.16	1.60	-0.78	0.57
Oman	-1.53	0.39	1.11	0.23
Qatar	0.79	0.29	0.16	2.75
Kuwait	-0.42	-0.87	-0.22	1.00
Libya	-0.94	1.53	-0.83	1.04
Income Effect				
Oil Economies				
UAE	1.23 (-)	0.98 (-)	1.43 (=)	0.14 (+)
Bahrain	0.70 (-)	0.03 (-)	2.04 (=)	0.76 (+)
Saudi Arabia	0.05 (+)	2.23 (+)	-0.97 (-)	0.28 (-)
Oman	-1.60 (=)	0.18 (-)	1.15 (=)	0.30 (=)
Qatar	0.62 (-)	-0.08 (-)	0.31 (+)	2.81 (=)
Kuwait	-0.27 (+)	-0.60 (+)	-0.38 (-)	0.73 (-)
Libya	-1.12 (=)	1.20 (-)	-0.64 (+)	1.18 (+)
Population Effect				
Oil Economies				
UAE	0.83 (-)	1.22 (=)	1.50 (+)	0.41 (+)
Bahrain	0.43 (-)	0.40 (=)	2.05 (=)	0.85 (+)
Saudi Arabia	-0.05 (+)	1.60 (=)	-0.81 (=)	0.41 (=)
Oman	-1.46 (=)	0.39 (=)	1.03 (=)	0.09 (-)
Qatar	0.48 (-)	0.30 (=)	0.25 (=)	2.67 (=)
Kuwait	-0.52 (-)	-0.87 (=)	-0.21 (=)	0.94 (=)
Libya	-0.88 (=)	-0.83 (-)	-0.85 (=)	0.83 (-)
Domestic Expenditure Effect				
Oil Economies				
UAE	1.14 (-)	1.10 (-)	1.33 (=)	-0.06 (=)
Bahrain	0.42 (-)	0.11 (-)	1.25 (-)	1.19 (+)
Saudi Arabia	-0.22 (=)	1.43 (-)	-0.67 (=)	0.76 (+)
Oman	-1.27 (+)	0.39 (=)	1.05 (=)	0.30 (=)
Qatar	1.40 (+)	0.74 (+)	-0.53 (-)	1.96 (-)
Kuwait	-0.42 (=)	-0.87 (=)	-0.15 (=)	1.31 (+)
Libya	-0.41 (+)	1.73 (+)	-1.20 (-)	0.52 (-)

Note: () indicates movement in ranking relative to sector dimension factor scores.

5. CONCLUSIONS--POLICY IMPLICATIONS

The pace of integration among the GCC countries has slowed in recent years as a number of problems have mounted. In the view of Abdullah El-Kuwaiz, the GCC's Assistant Secretary General for economic affairs, the six main problem areas currently facing the GCC include*:

1. Allowing GCC nationals to own shares in companies in other GCC countries
2. Establishing a common external tariff system
3. Allowing banks in one GCC country to open branches in others
4. Trying to coordinate the licensing of industrial projects in order to avoid duplication
5. Introducing common airline policies.

Not only are the Gulf states reluctant to concede their sovereignty but, despite their apparent homogeneity, they are at differing levels of development. GCC economies are anyway not complementary, being dominated for the most part by exports of oil and oil products, while importing large volumes of consumer, industrial and other goods from the industrialized world. Of itself, therefore, liberalization of trade will not create economic integration. Dr. El-Kuwaiz thinks the GCC needs to create productive capacity first since this in turn would promote integration (El-Kuwaiz, 1987, p.23). The results presented above are entirely consistent with this view.

Theoretically, economic integration in the form of a customs union can be justified as beneficial if at least one of the following arguments hold (Al-Yousuf, pp.26-27):

1. The public good argument. The development of an industrial sector is assumed to have certain public good characteristics; it is regarded as essential because health, education and defense programmes for the industrial sector indirectly contribute to the economic development and security of the country.

* Quoted in Arabian Peninsula: Economic Structure and Analysis by the Economist Intelligence Unit, 1988, pp.22-23.

2. The economies of scale argument. By forming a customs union the enlarged internal market could be captured by the most efficient producer which could lower prices even further because of the economies of large-scale production.

3. The terms of trade argument. A country could improve its terms of trade by imposing a tariff (tax) on its imports (exports) if it accounts for a sufficiently large proportion of world trade to influence world prices. Alternatively, it might use its economic power to obtain more favourable deals in economic bargaining process.

While all three arguments are likely to be valid for integration among the GCC countries, the analysis above has indicated that the economies of scale associated with increased integration of the member countries may be a critical factor in determining the success these countries have in meeting their prime economic priority, industrial diversification.

The results presented above indicate that economic size, especially the small populations of these countries is increasingly limiting the opportunity for expanding industrial output. As a result, increased income has become a major stimulus for non-industrial activities--services/distribution/and construction, all of which do not appear to be particularly sensitive to economies of scale.

Economic integration is particularly important also given the declining ability of an increasing share of domestic expenditures to stimulate industrial output, i.e., the scope for easy import substitution may be over for most of these countries.

REFERENCES

Al-Yousuf, Ala's, "Industrialization and Economic Integration in the Arab Gulf," *The Arab Gulf Journal*, April 1986.

Arab Monetary Fund, *National Accounts of Arab Countries, 1974-1985*, Arab Monetary Fund, Abu Dhabi, 1987.

El-Kuwaiz, Abdullah Ibrahim, "*Economic Integration of the Cooperation Council of the Arab States of the Gulf: Challenges*,"

Achievements and Future Outlook," in The Gulf Cooperation Council: Moderation and Stability in an Interdependent World, John Sandwick, (ed.), Boulder, Westview Press, Colorado, 1987, pp.76-77.

Metwally, M. M., "Market Limitation and Industrialization in Arab Countries," in J. K. Bowers, *Inflation, Development and Integration: Essays in Honour of A. J. Brown*, Leeds University Press, Leeds, 1979, pp.149-172.

The Economist Intelligence Unit, *Arabian Peninsula: Economic Structure and Analysis*, the Economist, 1988, pp.22-23.