

EXPORT COMPETITIVENESS: WHERE DOES THE MIDDLE EAST AND NORTH AFRICA REGION STAND?

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Abstract

Globalization could raise the export opportunities for the MENA region. Given its characteristics and endowments, the MENA region occupies an intermediate place in the ladder of comparative advantage and is being squeezed from above and below by a variety of countries, from China to Eastern Europe. It becomes important to assess the competitiveness of MENA in world markets at a detailed level, and beyond the oil factor. To a large extent, exports of MENA countries still rely heavily on primary products with ten out of 15 countries showing oil as one of their major exports. Moreover, most MENA countries have more than half of their exports concentrated in only three commodities. Export diversification is low, but is intensifying for some GCC countries and non-oil exporting countries, while other countries, have made no progress in upgrading their exports. Three categories of MENA countries emerge from the analysis: those that are ahead of the others in terms of export competitiveness indicators; some GCC countries that have made a noticeable effort in diversifying and upgrading exports and laggards, where efforts at improving competitiveness of non-oil exports are not evident. In order to achieve higher export competitiveness among MENA countries, several policies need to be implemented, including efforts to attract foreign direct investment, continued trade liberalization, and upgrading of labor skills and productivity.

Introduction

The dramatic internationalization or globalization of economic activity throughout the world is having profound implications on nations. Globalization, the widening and intensification of international linkages in trade and finance underpinned by economic liberalization and technological change, provides developing countries with the opportunities to create wealth through export-led growth, to expand international trade in goods and services, and to gain access to new ideas, technologies, and institutional designs. But globalization also entails problems and tensions that must be appropriately managed, as was recently experienced in East Asia.

For countries of the Middle East and North Africa (MENA), while globalization could raise their export opportunities, it also entails an increasingly competitive world economy. Given its characteristics and endowments, the MENA region occupies an intermediate place in the ladder of comparative advantage and is being squeezed from above and below. On the one hand, the more advanced developing countries, such as in East Asia, have gone upscale in their production structure towards more skilled and capital intensive activities. On the other hand, large and unskilled labor-abundant countries, such as China and India, are integrating fast into the world economy, putting strong pressure on countries like Egypt, which have specialized in low-skill intensive manufactures. The Central European countries, which are comparable to the diversified MENA countries in terms of endowments, are geographically closer to one of MENA's main trading partner, the European Union (EU), and would gain a competitive edge as they accede to the EU. Therefore, MENA countries have to quickly position themselves in this globalization context so as not to be marginalized in international markets.

It becomes important, therefore, to assess the competitiveness of MENA countries in world markets at a detailed level, beyond the oil factor. Many countries in the region rely heavily on oil for their exports, but there have been efforts to diversify in recent years. Has this export diversification succeeded? Which exports have grown fastest? In which new commodities do countries of the region have a competitive advantage now compared to a decade ago? Has the region diversified its export markets? Many questions arise regarding the composition and dynamics of exports in MENA. This paper sheds some light on such questions by showing a disaggregated profile of exports in the region and their evolution over the past decade. The paper's objectives are to assess export competitiveness in the world market and in the regional one. It provides (i) an overall profile of exports; (ii) indicators of competitiveness; and (iii) policy recommendations for an export strategy for the region.

Overview of Trade Performance

The MENA region as a whole has lagged behind other regions in terms of trade integration into the world economy, despite a stronger level of integration achieved by a limited number of individual countries. MENA countries as a whole appear relatively open, with total trade-to-GDP ratio of 70 percent, high by international standards. But this indicator is influenced by the particular factor endowments of the region - rich in oil and short in water - which result in sizable oil exports and basic food imports, and thus a comparatively high traded goods ratio. This does not necessarily reflect competitiveness in global markets. The ratio of manufactured exports to total exports - a good indicator of a country's competitiveness in foreign markets, technological progress and production diversification - is below the average for developing countries (Figure 1). This ratio is on the rise for non-oil MENA countries, but not for major oil-exporting countries. For most GCC countries, as well as for Syria and Algeria, the bulk of foreign export earnings are still comprised of fuel exports (Figure 2). Only a limited number of countries - Egypt, Jordan, Bahrain, and more recently Oman - have a significant ratio of non-fuel exports to total exports.

Aside from the lag in the extent of integration, there is also a lag in its speed. The largest gap in MENA's relative performance was evident in the 1990s, when most other developing countries witnessed a surge in trade integration (see Nabli and De Kleine, 2000). For example, Egypt, Syria, Bahrain, and Kuwait exhibited negative growth rates in their trade-to-GDP ratio over several years in the 1990s. Moreover, the share of exports in total world exports for the MENA region decreased by more than half since 1985 - from about five percent in 1985 to nearly two percent in 1997 in real terms. East Asia's export share, on the other hand, increased from four percent to almost seven percent over the same period. Similarly, the share of MENA imports in total world imports dropped from 5.5 in 1985 to less than two percent in 1997 in real terms.

Trade restrictions in the region have been reduced in recent years, but they remain relatively high for many non-GCC countries. While most GCC countries - such as Bahrain, Oman, and the United Arab Emirates (UAE) - have open trade regimes with average tariff levels below 15 percent. The averages are close to or above 30 percent for most non-GCC countries (compared with 14 percent in Latin America and nine percent in Central Europe in 1996). In most recent years, a number of MENA countries, like Tunisia, Morocco, Jordan and Egypt, have pursued greater trade liberalization by dismantling the systems of quantitative controls, cutting tariff levels and streamlining tariff systems, and introducing export promotion schemes and current account convertibility. Policies to promote non-oil, non-mineral exports were also implemented in some MENA countries that relied heavily on primary commodities.

Export Diversification and Technology Composition

Product Diversification is Low but Intensifying

Export performance underlines the importance of product diversification in weathering external shocks. Many countries among the more diversified economies of the MENA region were able to diversify their exports in the past decade. Between 1985 and 1997, the export diversification index¹ - which varies between zero (more diversified) and one (less diversified) - showed great improvements for Tunisia and Egypt, followed by Jordan, Morocco, and Qatar (Table 1). However, the index remains much higher than that of Turkey, which has the most diversified exports of the region. In some oil producing countries, such as Libya, Saudi Arabia, Oman, Kuwait, Algeria, and Syria, the export diversification index is not only very high, but it has also not shown much improvement over the past decade.

For most oil-producing countries, export diversification means moving away from oil. Given the dominance of this commodity, even if some diversification effort is undertaken, it will still be overwhelmed by the effect of oil and would not be adequately reflected in the export diversification index. In order to assess the extent of diversification of non-oil exports, even if their share in total exports is relatively small, the export diversification index was computed for non-oil exports only. This index reveals that some oil-exporting countries (such as Oman, Qatar, UAE, and Syria) have relatively more diversified non-oil exports than do others (such as Algeria, Bahrain, Libya and Saudi Arabia).

Moving Away from Primary Products

Oil remains by far the most important commodity exported by the region. Ten out of 15 MENA countries show oil as one of their major exports, with the average share of oil in total exports over 1993-97 varying from eight percent (Tunisia) to 95 percent (Kuwait). It is crucial for these countries to diversify their exports away from oil and other primary commodities in order to avoid the detrimental long-term prospects of unstable commodity prices and the resulting unpredictability of export earnings. Efforts among some oil producers in the region to diversify their economies are intensifying, but more remains to be done.

Until now, countries in MENA, except Turkey, Tunisia and Jordan, have more than half of their exports concentrated in three commodities (at the three-digit SITC level), most of which are primary products (Table 2). Indeed, most countries of the region

¹ The Herfindahl index of concentration is used. This index is the sum of the squared 3-digit SITC commodity exports to total exports. It varies between 0 and 1, the smaller the index the more diversified the exports.

still rely on agriculture, crude materials, or minerals as their main exports. In addition to crude petroleum and petroleum products, major exports consist of gas (Qatar), fertilizers (Jordan), cotton (Sudan and Syria), and vegetables (Sudan, Morocco). This continued dependence on primary products makes the region vulnerable to the high variability in their prices on world markets. Other countries, however, include manufacturing products as one of their major exports - Bahrain (aluminum), Oman (cars), UAE (aluminum and garments), and Egypt, Tunisia, and Turkey (textile and garments).

New, Dynamic Export Products are Emerging

Despite the heavy concentration of exports in a few commodities, new products are emerging that are growing fast. Products with the highest contribution to export growth (and with an export share above five percent) are, to a large extent, different from the current major exports (Table 3). They vary from basic manufacturing like textiles to more sophisticated ones like machinery. Countries where the share of such products is above five percent and where their contribution is highest include many GCC countries - Bahrain (aircraft equipment and cotton fabric), Kuwait (non-electric machinery), Oman (engine, motors, and under garments), and UAE (food preparation and undergarments). In Morocco, motor vehicles have contributed an average of 25 percent to total export growth during 1993-97.

Have MENA Countries been able to Move up the Technology Ladder?

Several waves of export technological advancement have taken place in the region over the past decade (Table 4). First, some countries were heavily dependent on primary exports and have made no progress towards upgrading their exports over the past decade. This is the case of Algeria, Libya, Syria, and Yemen. Second, most countries have gradually progressed along the technology ladder, moving away from primary products towards more technologically advanced exports, although at a different pace. Turkey and Tunisia are ahead of the others with less than 15 percent of their exports remaining in primary products, about 50 percent in low technology (mainly textile), 15-18 percent in medium technology, and a burgeoning share in high technology. Morocco, Egypt, and UAE share similar situations, with their shares of primary exports reduced to around 30-35 percent. Third, some countries that were heavily dependent on primary exports leaped to medium-technology manufactures without passing through low-technology manufactures. This may be due to their lack of resources typically used in low-technology production, mainly labor (unskilled), but also agriculture (for agro- or textile industry for example).

Overall, the shift in the technology composition of exports in the region has been relatively small and slow when compared to other regions. Most East Asian countries were still heavily dependent on resource-based exports in 1990, accounting for over

40 percent of their total exports, but were able to dramatically change their export structure by 1996, doubling or tripling the share of high technology exports. By contrast, in MENA the share of exports in primary and resource-based products is more than half for all countries except Turkey and Tunisia, while the share of exports at the higher end of the spectrum remains largely insignificant. This lag in technological upgrading of exports is even more detrimental in a global market where the technology composition of world exports is advancing rapidly, even among developing countries (Box 1).

Re-exports Play an Important Role in Some MENA Countries but may Entail a False Diversification

Some countries, mainly among GCC countries, are diversifying their exports and moving up the technology ladder via re-exports. Although this strategy allows them to move away from primary exports, and thus provides more stability in terms of foreign exchange earnings, it does not build up the technical capacity of the countries and may therefore be easily displaced by competition. In fact, competition from within the GCC countries is already rising in the re-export market, which is mainly regional. Although competition is healthy, there will be quick losers and gainers and thus a rising need to build these countries' non-oil export industry on more solid grounds.

Oman, for example, appears to have made great improvements in its export diversification and up-scaling endeavor. However, more than half of its non-oil exports consist of re-exports and most of its technologically advanced exports also consist of re-exports. While Oman's re-exports are dominated by machinery and transport equipment, and more specifically cars (37 percent of total re-exports in 1998), non-oil exports of Omani origin are dominated by low-skill commodities such as food and live animals, although other categories such as chemicals, electrical equipment and machinery have increased in importance over the past few years. In addition to Oman, the UAE and Jordan show high shares of re-exports (35 percent and 18 percent, respectively).

Diversification of Export Markets

Geographic diversification is important since factors in export markets might affect their level of import demand, despite successful competitiveness levels. On the one hand, developed countries may offer stable and wealthy markets but they are highly competitive. On the other hand, developing countries are more likely to be subject to economic shocks but may present markets where competition is less fierce. Trade between MENA countries and traditional partners may also be affected as the latter are increasingly forming regional trade arrangements (e.g., EU enlargement, Euro-Mediterranean partnership, NAFTA, APEC, etc.). In order to avoid negative repercussions from export markets, it is important to expand exports geographically,

while at the same time diversifying products. This was demonstrated during the East Asia crisis when major oil-exporting MENA countries found themselves deprived of an important market that they were unable to compensate for. Overall, MENA countries are still vulnerable to a large extent because the volatility of their export earnings caused by the high concentration of exports in primary commodities is exacerbated by their high dependence on a few markets for their exports.

Geographic Diversification is Still Low

For the MENA region as a whole, over 50 percent of its exports go to industrial countries, mainly to Europe (Table 6). The United States is an important market only for Egypt, Saudi Arabia, and Kuwait (over 10 percent of their exports). For Bahrain, Jordan, Lebanon, and Syria, more than 20 percent of their exports went to the Middle East. Asia is a major destination for the exports of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the UAE, and Yemen. For many MENA countries, over 40 percent of their exports are concentrated in three countries (Table 7). To a large extent, this geographic concentration of export destination reflects political ties among countries, for example Morocco-France, Tunisia-France, Turkey-Germany, Egypt-US. Syria, which was highly dependent for its exports on Eastern Europe in the mid-1980s (such as the former USSR and Romania), was able to replace these markets with France and neighboring Turkey by the mid-1990s.

Geographic diversification can also be measured in terms of the geographic diversification index². It reveals that Egypt, Turkey, Tunisia, and Jordan had the most diversified export markets in 1997 while Kuwait, Qatar, Saudi Arabia, and Libya had the least diversified markets (Table 8). Excluding oil, some GCC countries are well diversified (e.g., Bahrain, Oman, UAE), while others are not (e.g., Saudi Arabia). Syria shows a better geographic diversification index for its non-oil exports than for its oil exports. Compared to a decade ago, this index improved for only a few MENA countries. These include Algeria, Jordan, Oman, Syria, and Egypt. Oman switched its main export markets from neighboring UAE and the US to East Asia (mainly Japan), including new destinations which few MENA countries have tapped, namely Thailand and China. Morocco's index has actually gone up over this period, reflecting its continuous dependence on France and Spain. Similarly, Tunisia remains dependent for its exports on France, Italy, and Germany. Turkey, on the other hand, is piercing the Russian and US markets.

² Again the Herfindahl index of concentration is used.

Excluding Oil, there is More Intra-regional Trade

The high concentration of exports in a few partners is partly due to the dominance of oil exports, which is primarily destined to the industrial countries. If oil is removed, major partners for Algeria's and Egypt's non-oil exports remain among developed countries; however, major trading partners for some oil-exporting countries become intra-regional. For GCC countries major non-oil export partners are intra-GCC (e.g., Oman-UAE-Saudi Arabia-Qatar), for Syria they are Lebanon and Saudi Arabia, and for Yemen they are Saudi Arabia and Bahrain. In fact, if oil were excluded, the share of intra-regional exports would rise to an average of 30 percent in recent years compared to seven percent with oil. However, the importance of intra-regional trade varies across countries. For oil-exporting countries, intra-regional trade as a share of their total trade is small - for example, Saudi Arabian, exports to the region represented only eight percent of its total exports in 1997 and imports from the region only six percent of its imports. For non-oil producing countries, the MENA region constitutes an important export market. In 1997 the share of exports to the region in total exports was 47 percent for Jordan, 45 percent for Lebanon, and 20 percent for Syria (Table 9).

Export Competitiveness

Revealed Comparative Advantage

The revealed comparative advantage (RCA) index can provide some indication of the potential for expanding exports (see Yeats, 1996). The RCA of country "i" for product "j" is measured by the product's share in the country's exports relative to its share in world trade³. If the share of product "j" in exports of "i" is greater than the corresponding world trade share, the RCA will be greater than one, and this implies that the country has a revealed comparative advantage in the product. If the index is less than one, this implies that the country has a revealed comparative disadvantage in the product. The importance of the RCA as an indicator of export competitiveness is that it is relative to other countries. It is computed for 1985 and 1997 and updates the index computed by Yeats.

To a large extent, the RCA reflects comparative advantage based on factor endowment. The highest RCAs are in crude materials and mineral fuels for most countries of the region. Comparative advantage in food and live animals is found for non-major oil exporters such as Jordan, Morocco, Syria, Turkey, and Egypt. Exports of chemical products also have potential for Jordan, Morocco, Qatar, and Tunisia. Non-oil countries such as Morocco, Tunisia, and Turkey, as well as the UAE, have

³ $RCA_{ij} = (x_{ij} / X_{ij}) / (x_{iw} / X_{iw})$, where "i" refers to countries, "j" refers to product, w refers to world, t refers to total, x refers to exports by "i" of product "j", and X refers to total exports by country "i".

managed to achieve comparative advantage in more advanced manufacturing (miscellaneous manufacturing). Egypt and UAE also have comparative advantage in material-based manufacturing, which are typically low-skill labor intensive. While Egypt is abundant in low-skill labor, UAE relies on foreign workers for such production.

The RCA is also computed at the three-digit SITC level (Appendix 1) in order to provide more details about specific goods, in which the region has comparative advantage. Only 10 products with RCAs greater than one are shown for each country. The RCA shows that such goods include mainly primary commodities, such as oil and gas or food and animal products (cotton, fish). Chemicals and metallurgic products (aluminum, pig iron) are important categories as well for some countries like Bahrain or UAE. These are typically capital-intensive products and suit well the labor scarce countries. The RCA is also high for many low-skill labor intensive products such as garments (Egypt, Tunisia, Turkey). There is a virtual absence of comparative advantage in high-skill intensive products. This is worrisome in a globalized world that is fast moving towards electronic or other such types of products.

Intra-industry Trade Index

The recent discussions of globalization raise the question of how MENA countries will fare in a more competitive environment. As seen above, most MENA countries have traditionally been dependent on their natural resources and, as a consequence, they have had fewer pressures to diversify and specialize their industrial base. Intra-industry trade (IIT)⁴ is indicative of the level of industrial advancement and of the implied potential to compete with industrialized economies in a more open trade setting. This indicator is used to determine the level of industrial progress in MENA countries and the potential for success in world and regional trade.

In the trade literature, the amount of intra-industry trade, or trade in similar goods which a country undertakes, is often taken as a measure of the diversity, degree of specialization, and degree of technical sophistication of its industrial sector. Traditional trade theory suggests that the potential payoffs from the opening of trade among countries that formerly did not trade much with each other, increase when the structure of their economies are more complementary. However, the creation of a customs union among countries that could trade before, is more likely to be welfare-enhancing for its members the more similar the range of goods they produce - and

⁴ Following Grubel and Lloyd (1975), the measure for intra-industry trade in product i at the three-digit SITC level is: $IIT_i = [(X_i + M_i) - |X_i - M_i|] / (X_i + M_i)$. The index will be zero if there is no intra-industry trade and one if all trade is intra-industry.

thus the greater intra-industry trade - because trade creation is more likely to dominate trade diversion under those circumstances (e.g., the European Union).

Overall, the MENA region does not have a highly advanced industrial base, with an average IIT index of 18 percent for 1997 (Table 11). This IIT level falls well below those recorded in industrial countries, which had an average IIT index of 88 percent during 1992-94. IIT levels for MENA countries are also lower when compared to other regions that have already implemented trade arrangements, such as NAFTA (77 percent) and APEC (90 percent), or even in relation to Mercosur (52 percent), which has comparable per-capita income levels (see Havrylyshyn, 1997). Intra-industry trade increased for most MENA countries between 1985 and 1997. Syria, however, is a notable exception. To a large extent, countries with the highest IIT index are those that are non-oil exporting, namely, Jordan, Tunisia, and Turkey. Among GCC countries, Bahrain and Oman have a high IIT index, mainly on account of re-exports. Some MENA countries have lower IIT levels in trade with the world as opposed to intra-regional trade. This means that these MENA countries trade more with each other in similar goods than they do with the EU or the world as a whole, and thus have more similar levels of industry specialization. For these countries, intra-regional trade provides an opportunity to compete more effectively in intra-industry trade.

Export Similarities among Countries of the Region

To what extent do MENA countries compete with each other and to what extent do they complement each other? Export share correlations reveal a mixed picture (Table 12). Low correlations reflect different endowments of natural resources and patterns of specialization, whereas high correlations reflect similar export structures. First, there is a virtual absence of export similarities among most MENA countries in intra-regional trade. This shows that intra-regional exports of MENA countries are, to a large extent, complementary. One exception, however, is Tunisia-Morocco. The high correlations among these countries in the regional market are more likely to reflect intra-industry trade than competition. Countries whose correlations are weak in intra-regional trade, but likely to increase in the future could include Egypt-Syria and UAE-Qatar-Oman. Second, most of the high correlations among MENA countries in world trade are among oil-exporting countries, and thus driven by oil. If oil is removed, most of these correlations fade away. Third, excluding oil, some strong export similarities occur among groups of countries in the world market, including Jordan-Morocco, Morocco-Tunisia and Syria-Egypt.

Towards an Export Strategy that Raises Competitiveness

This paper provides a detailed profile of exports in the MENA region. While overall MENA economies are still highly dependent on primary exports and on a few export markets, three categories of countries emerge from the analysis. The first category

comprises countries of the region that are ahead of the others in terms of most export competitiveness indicators - more advanced in the technology ladder, relatively more diversified product-wise and market-wise, and higher comparative advantage in manufacturing products. Turkey and Tunisia are ahead of the list in this category, followed by Jordan, Morocco and Egypt.

The second category comprises some GCC countries, which have made a noticeable effort to diversify away from oil and primary products. These include Oman, UAE, Bahrain, and Qatar. However, there is a tendency among these countries to rely on re-exports rather than develop their own industrial base. Although this strategy could be used on a transition basis to reduce vulnerability to external shocks arising from oil volatility, it is a false diversification and deeper economic integration still needs to be undertaken.

The last category comprises laggards, which are still highly reliant on oil and where efforts at diversification and increased competitiveness of non-oil exports are still not evident. These countries include Syria, Yemen, Algeria and Saudi Arabia. To a large extent, these economies are still closed and protected - Saudi Arabia is an exception but has higher protection rates than other GCC countries. In a sense, if they do not speed up reforms that will increase the role of the private sector and its effectiveness, they will no longer be able to face up to competition in a globalized world.

There is a clear need in the region to improve export competitiveness. Oil-exporting countries will continue to have comparative advantage, and perhaps an oligopoly, in oil exports; however, diversification is important to reduce vulnerability. For non-oil exporting countries diversification is crucial to shield MENA countries, that are beginning to enter new markets, against rising competition throughout the world, e.g., from China and India for low-skill labor intensive products (such as garments); from Eastern Europe and Latin America for medium-skill intensive products (such as electric machinery); and from East Asia for high-skill intensive products (such as electronics).

Export diversification could be based on high value-added products that require available raw materials, e.g., high-end textiles for cotton-producing countries, agrobusiness for agriculture-based economies, and metallic or chemical products for countries rich in minerals. This diversification will necessarily entail an upgrading of technology and labor skills and productivity, for all MENA countries, but more importantly for countries that are short in labor (e.g., Jordan and GCC countries). Such labor-scarce countries could then find a niche in products in which world exports are growing rapidly, such as electronics. Countries that are abundant in low-skill labor (e.g., Egypt, Syria) typically have low-cost but also low-productivity labor. These countries will also have to raise the productivity of their labor in order to face

competition from lower cost, higher productivity countries like China. This is especially important in textiles, for example, since three countries which rely heavily on exports of textiles, may lose their export markets so far protected by the Multi-Fiber Arrangement (MFA), which is scheduled to be fully dismantled by 2005.

In order to achieve higher export competitiveness and diversification, several policies need to be implemented. First, domestic policies should try to attract foreign direct investment into export sectors, in order to enhance the potential for technology transfer that MENA countries need. The Euro-Mediterranean partnership provides an opportunity for that purpose, given its specific provisions for technology transfer. Second, trade barriers among countries need to be lowered sharply to encourage deeper and less vulnerable trade integration with the rest of the world. The WTO provides a well-established framework for trade liberalization and for credibility of such programs. MENA countries that are not yet members of WTO could speed up their membership (e.g., Saudi Arabia, Lebanon, and Syria).

Third, regional coordination arrangements that are currently being negotiated or implemented (the Euro-Mediterranean partnership and the Great Arab Free Trade Area), need to be driven by a deep process of true economic integration in order to gain its full potential. Finally, governments need to continue to invest in education, especially secondary education, and labor productivity upgrading in order to improve labor competitiveness.

There is also a potential for increasing the share of intra-industry trade within the region. Havrylyshyn (1999) found that intra-industry trade is higher for trade within the region than it is for trade with the rest of the world, suggesting that MENA countries may be able to better compete in intra-regional trade. There may be a case for enlarging the MENA market with the understanding that such a market will not be inward looking, but open so as to benefit from interactions with the world economy. Widening the market by dismantling national economic barriers will serve the objectives of raising the level of national productivity and of increasing its competitiveness; creating greater opportunities for economies of scale; providing greater attraction to domestic and foreign investment; pooling resources to develop the technological field; and permitting a rationalization of investment (generally a more efficient allocation of regional resources), all of which will build up the MENA capability to compete in world markets.

References

- Alonso-Gamo, P., A. Fedelino and S. Paris Horvitz. 1997. "Globalization and Growth Prospects in Arab Countries." IMF working paper.
- Havrylyshyn, O. and P. Kunzel 1997. "Intra-Industry Trade of Arab Countries: An Indicator of Potential Competitiveness" Middle Eastern Department, Policy Development and Review Department, International Monetary Fund, Working Paper WP/97/47.
- International Monetary Fund. 1998. "Direction of Trade Statistics Yearbook." Washington, D.C.: IMF.
- Lall, S. 1998. "Exports of Manufactures by Developing Countries: Emerging Patterns of Trade and Location." *Oxford Review of Economic Policy*, Vol: 14, No. 2.
- Nabli, M.K. and A.I. De Kleine. 2000. "Managing Global Integration in the Middle East and North Africa" in B. Hoekman and H. Kheir-El-Din (eds.), *Trade Policy Developments in the Middle East and North Africa*. Washington, D.C.: The World Bank.
- United Nations. 1999. *Survey of Economic and Social Developments in the ESCWA Region*. Beirut, Lebanon: Economic and Social Commission for Western Asia.
- The World Bank. 1998. *East Asia The Road to Recovery*. Washington, D.C.
- Yeats, A. 1996. "Export Prospects of Middle Eastern Countries: A Post-Uruguay Round Analysis." Policy Research Working Paper WPS 1571. The World Bank, International Economics Department and International Trade Division..

Box 1: The Changing Technology Composition of World Exports and Exports from Developing Countries

The share in world merchandise trade of technologically complex products has risen steadily in recent years. In fact, the higher the level of technological sophistication, the higher the export growth rate, with differences in dynamism rising over time. World exports of primary products grew at a modest 2.3 percent *per annum* during 1980-1990, and at only 1.4 percent over 1990-1995. At the other end of the spectrum, high technology products (fine chemicals and pharmaceuticals, advanced electronics, aircraft and precision instruments) grew at around 12 percent *per annum* (compound in both periods). Medium technology products (most industrial machinery, automobiles, simple electronics, chemicals) grew at 8.4 percent and 6.9 percent. Low technology products (textiles, clothing, sports goods, toys, simple metal and plastic products, footwear) grew at 7.7 percent and 5.6 percent, and resource based manufactures at 6.0 percent and 5.3 percent. When export growth rates generally declined after the 1980s, complex products maintained their growth better than simpler products.

Of the value of the 50 most dynamic merchandise exports in the world over 1980-1995, medium and high technology products accounted for a full 75 percent. Within these very dynamic exports, high technology products again grew the fastest, followed by medium technology products. Low technology products were the lowest growing category. Technological sophistication is thus increasingly important for trade growth.

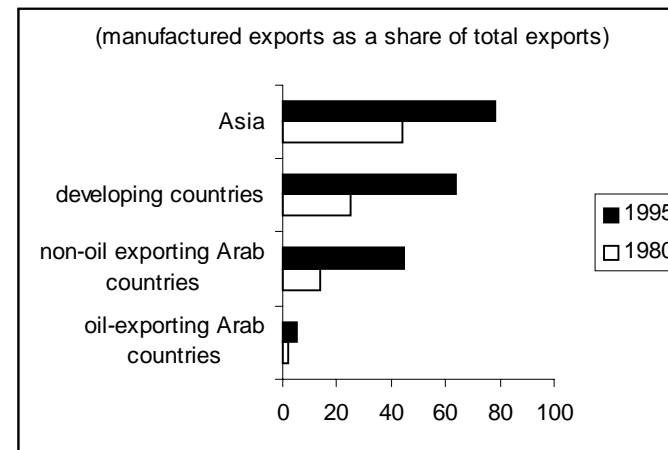
Over 1980-1995, developing economies had faster rates of export growth than developed ones in all categories of products by technology intensity. In line with received trade theory, the developing economies' share was highest (around 34 percent) in low technology products at the end of the period. However, contrary to expectations, their export growth rates were higher in the case of the technologically complex products. Consequently, their share in high technology exports (30 percent) was higher than for resource based and medium technology exports, and may soon overtake their share of low technology exports. In 1995, the value of their high technology exports (\$299 billion) was higher than low technology exports (\$266 billion), and comprised the largest single category. This was partly due to the relocation of labor intensive processes in high technology production by Transnational Corporations, and partly due to the growth of indigenous capabilities in countries such as the Republic of Korea and Taiwan Province of China.

Export success in the developing world, however, was highly concentrated by region and country. Asian developing economies accounted for 78 percent of total manufactured exports, and 89 percent of high technology exports. Latin America accounted for 17 percent of the total, 28 percent of resource-based, 12 percent of low technology, 28 percent of medium technology, and 11 percent of high technology manufactures. Mexico dominated Latin American export activity after 1990, mainly because of NAFTA: in 1995 alone it accounted for 90 percent of the region's high technology, 62 percent of medium technology, and 50 percent of low technology exports. Sub-Saharan Africa contributed 1.4 percent of the developing world's exports in 1995; if South Africa and Mauritius are excluded the share in world merchandise trade drops to 0.1 percent.

Just 12 economies accounted for 92 percent of total manufactured exports by developing countries in 1995. These are composed of nine countries in Asia (the seven Newly Industrialized Countries and India and China) and three in Latin America (Argentina, Brazil and Mexico). The level of export concentration has increased over time, from 78 percent in 1985. The level of concentration rises with technological sophistication, being lowest in the resource-based products and highest in high technology products. The shares of the top ten exporters in total developing country exports in 1997 were: high technology 98 percent, medium technology 87 percent, low technology 84 percent and resource based 72 percent. The concentration level for total manufactured exports was 85 percent.

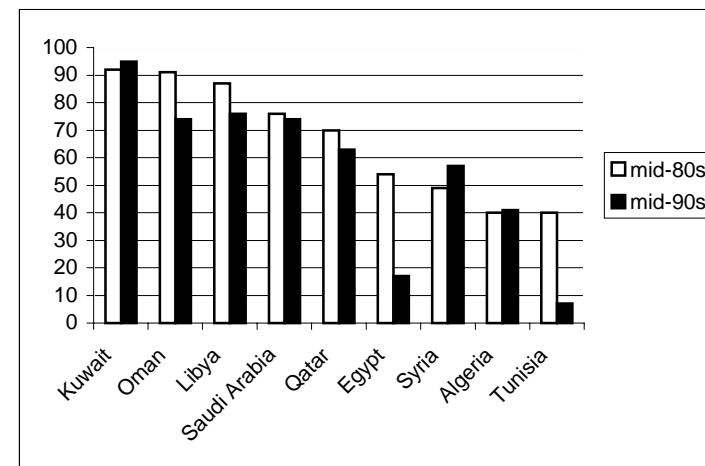
Source: Lall, S., 1998.

Figure 1: How Competitive are Arab Countries in World Markets?



Source: P. Alonso-Gamo, *et. al.*, 1997

Figure 2: The Dominance of Oil Exports (Oil Share in Total Exports)



Source: UNCOMTRADE

Table 1: Export Diversification Index

	Including Oil		Excluding Oil	
	Mid-1980	Mid-1990	Mid-1980	Mid-1990
Algeria	0.57	0.59	0.68	0.72
Bahrain	-	0.56	-	0.55
Jordan	0.35	0.26	0.36	0.27
Kuwait	-	0.59	-	0.63
Lybia	0.88	0.78	0.78	0.71
Morocco	0.30	0.23	0.30	0.23
Oman	0.91	0.74	0.33	0.27
Qatar	0.71	0.64	0.41	0.34
Saudi Arabia	0.77	0.75	0.57	0.57
Sudan	-	0.35	-	0.35
Syria	0.55	0.58	0.52	0.30
UAE	-	0.36	-	0.36
Tunisia	0.43	0.26	0.26	0.27
Turkey	0.16	0.16	0.16	0.16
Egypt	0.57	0.32	0.43	0.33
Yemen	-	0.90	-	0.35

Source: Author computation based on UNCOMTRADE data

Table 2: Major Export Products for MENA Countries

Countries	3-Digit SITC	Commodities	Exp. Share
Algeria	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	44.89
	341	Gas, natural and manufactured	33.34
	334	Petroleum products, refined	16.47
Bahrain	684	Aluminum	53.43
	671	Pig iron, sponge iron, iron or steel	9.15
	512	Alcohols, phenols, phenol-alcohols, and their derivatives	6.22
Jordan	271	Fertilizers, crude	21.10
	541	Medicinal and pharmaceutical products	9.49
	562	Fertilizers, manufactured	8.76
Kuwait	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	94.45
	334	Petroleum products, refined	30.00
	335	Residual petroleum products, n.e.s. and related materials	11.00
Lybia	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	76.00
	334	Petroleum products, refined	16.00
Morocco	522	Inorganic chemical elements, oxides and halogen salts	11.28
	036	Crustaceans and mollusks, whether in shell or not, fresh, chilled	9.41
	562	Fertilizers, manufactured	7.67
Oman	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	77.15
	781	Passenger motor cars	6.98
Qatar	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	63.90
	341	Gas, natural and manufactured	10.00
	334	Petroleum products, refined	6.80
Saudi Arabia	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	74.50
	583	Polymerization and co-polymerization products	16.00
	334	Petroleum products, refined	13.41
Sudan	263	Cotton	19.19
	222	Oil seeds and oleaginous fruit	16.59
	292	Crude vegetable materials	15.46
Syria	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	58.58
	334	Petroleum products, refined	6.73
	263	Cotton	6.17
UAE	684	Aluminum	32.00
	846	Under garments, knitted or crocheted	11.00
	793	Ships, boats and floating structures	8.00
Tunisia	842	Outer garments, men's and boys', of textile fabrics	19.31
	843	Outer garments, women's, girls', and infants', of textile fabrics	10.49
Turkey	845	Outer garments & other articles, knit'd or crocheted, not elastic nor rubberized	8.71
	673	Iron and steel bars, rods, angles, shapes and sections	6.19
	846	Under garments, knitted or crocheted	6.04
Egypt	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	25.25
	334	Petroleum products, refined	17.66
	651	Textile yarn	7.98
Yemen	333	Petroleum oils, crude, and crude oils obtained from bituminous minerals	90.00

Note: Export share is the average export share for 1993-97 in percent for three major commodities with an export share above five percent. The sum of export share may be above 100 if different products had a high export share during the period considered.

Source: Author computation based on UNCOMTRADE data.

Table 3: Most Dynamic Exports in the MENA Region (Three Commodities with Highest Contribution to Growth)

Country	3-Digit SITC	Commodity	Contribution to Growth
Algeria	551	Essential oils, perfume and flavor materials	51.29
	111	Non-alcoholic beverages, n.e.s.	10.01
	893	Printed articles	6.05
Bahrain	081	Feeding stuff for animals (not including unmilled cereals)	7.67
	792	Aircraft and associated equipment, and parts thereof, n.e.s.	5.72
	652	Cotton fabrics, woven, unbleached, not mercerized	5.54
Jordan	931	Spcl. transactions & commodities not classified according to kind	11.39
	792	Aircraft and associated equipment, and parts thereof, n.e.s.	7.05
Kuwait	333	Petroleum oils, crude, and crude oils	70.82
	745	Other non-electrical machinery, tools and mechanical apparatus	20.26
	335	Residual petroleum products, n.e.s. and related materials	19.49
Morocco	783	Road motor vehicles, n.e.s.	24.95
	263	Cotton	8.25
Oman	844	Under garments of textile fabrics (other than knitted or crocheted)	16.89
	714	Engines and motors, non electric	16.21
	333	Petroleum oils, crude, and crude oils from bituminous minerals	5.40
Saudi Arabia	333	Petroleum oils, crude, and crude oils from bituminous minerals	11.89
Sudan	651	Textile yarn	10.13
	011	Meet and edible meat offals, fresh, chilled or frozen	6.81
Syria	045	Cereals, unmilled (other than wheat, rice, barley and maize)	75.20
	712	Steam and other vapor power units; steam engines	7.00
	551	Essential oils, perfume and flavor materials	6.13
UAE	011	Meet and edible meat offals, fresh, chilled or frozen	80.41
	073	Chocolate and other food preparations containing cocoa, n.e.s.	74.11
	844	Under garments of textile fabrics (other than knitted or crocheted)	66.61
Turkey	792	Aircraft and associated equipment, and parts thereof, n.e.s.	5.35
	041	Wheat (including spelt) and meslin, unmilled	5.07
Yemen	553	Perfumery, cosmetics and toilet preparations	11.84
	677	Iron or steel wire (excluding wire rod)	10.90
	524	Radio-active and associated materials	9.51

Note: Contribution to growth (in percent) is for products with an average share in exports over 1993-97 over five percent. Commodities with an average share in exports over 1993-97 below five percent are not shown.

Source: Author computation based on UNCOMTRADE data.

Table 4: Technological Composition of MENA Exports (% Share in Total Exports)

	1985					
	Primary Products	Resource-Based Mfg	Low Tech. Mfg	Medium Tech. Mfg	High Tech Mfg	Other Transactions
Algeria	60.1	39.3	0.1	0.5	0.0	0.0
Bahrain	54.4	10.9	11.8	22.0	0.6	0.2
Jordan	43.7	10.3	13.7	16.6	14.4	1.3
Lybia	88.8	10.1	0.0	1.2	0.0	0.0
Morocco	44.5	30.6	15.9	8.5	0.4	0.0
Oman	93.8	0.7	0.4	3.3	1.2	0.6
Qatar	72.2	11.0	5.2	11.4	0.1	0.1
Saudi Arabia	82.7	13.6	0.6	2.9	0.1	0.0
Syria	61.6	26.4	7.8	4.0	0.2	0.1
UAE	22.3	15.0	16.1	33.0	5.6	7.9
Tunisia	48.2	14.1	22.2	14.0	1.1	0.4
Turkey	27.0	15.9	38.6	17.1	1.2	0.3
Egypt	74.7	15.4	8.8	0.4	0.3	0.4
Yemen	9.6	90.3	0.0	0.1	0.0	0.0
1997						
Algeria	81.2	17.7	0.2	0.7	0.0	0.0
Bahrain	56.1	12.5	13.1	16.7	1.5	0.1
Jordan	39.0	19.8	8.2	26.5	5.9	1.1
Lybia	78.6	18.1	1.6	1.7	0.0	0.0
Morocco	35.1	30.0	22.4	12.2	0.3	0.1
Oman	76.9	5.7	2.6	11.8	1.6	1.4
Qatar	67.4	10.5	7.9	13.9	0.3	0.1
Saudi Arabia	74.5	18.0	1.6	5.7	0.2	0.4
Syria	80.2	10.0	8.3	1.1	0.2	0.2
UAE	35.6	14.9	33.4	15.7	0.3	0.1
Tunisia	11.3	19.0	51.3	15.1	3.3	0.0
Turkey	13.9	14.4	48.4	18.2	4.1	1.1
Egypt	31.4	34.4	26.8	5.5	1.6	3.3
Yemen	92.5	5.6	0.6	0.9	0.1	0.0

Note: Shares may not add up to 100 due to rounding.

Source: UNCOMTRADE

Table 5: The Growing Importance of Re-Exports

		Major Commodities	
Country	Re-Export share in Total Exports	3-Digit SITC	Re-Export Share in Total Re-Exports
Bahrain	3.7	Passenger motor cars (781)	7.6
		Vegetables, roots & tuber (054)	5.9
		Perfumery & cosmetics (553)	5.2
Jordan	18.2	Aircraft & equipment (792)	13.1
		Passenger motor cars (781)	7.7
		Miscellaneous chemical products (598)	4.7
Oman*	23.3	Machinery and transport equipment (8)	67.2
		Miscellaneous manufactures (9)	8.6
		Beverages and tobacco (2)	8.3
Qatar	2.5	Civil engineering & contractors' equipment (723)	17.3
		Passenger motor cars (781)	12.4
		Motor vehicles for goods transport (782)	7.6
Saudi Arabia	1.5	Passenger motor cars (781)	24.0
		Aircraft & equipment (792)	13.5
		Motor vehicles for goods transport (782)	10.1
Sudan	2.5	Fabrics, woven (653)	47.8
		Textile yarn (651)	34.2
		Leather (611)	9.3

Note: *Oman re-exports are not reported as such in UNCOMTRADE; figures are based on national sources at one-digit SITC. The data is provided for the latest available year which varies between 1993 and 1997. UAE does not report all exports but official sources cite the share of re-exports in 1998 as 35 percent of total exports.

Source: UNCOMTRADE and Central Bank of Oman.

Table 6: Geographic Destination of MENA Countries' Exports

Exporting Country	World (\$ million)	of which:				Other Countries	of which					
		Indus. Countries	Europe	North America	Asia		Africa	Asia	Europe	Middle East	Latin America	Not Specified
Algeria	11,081	83.6	64.7	18.1	0.7	16.3	1.7	0.2	7.5	0.1	6.8	0.1
Bahrain	3,174	25.0	8.8	3.7	12.6	75.0	1.7	46.1	5.3	20.3	0.3	1.4
Egypt	3,908	55.7	41.7	11.6	2.4	44.3	3.1	9.9	6.3	19.2	0.5	5.5
Iran, Islamic Rep.	24,925	39.5	25.1	1.5	12.9	60.5	6.2	19.4	5.7	3.4	1.6	24.3
Jordan	1,451	18.8	12.4	1.7	4.9	81.2	7.8	19.9	4.5	40.2	0.7	8.1
Kuwait	14,091	48.1	10.7	12.9	24.5	51.9	3.8	46.1	1.2	0.6	0.3	0.0
Lebanon	711,0	33.6	25.3	6.8	1.5	66.4	6.0	1.7	9.3	45.5	0.9	3.1
Libya	9,716	84.2	84.2	0.0	0.1	15.8	5.4	1.4	7.1	1.4	0.5	0.0
Morocco	4624,0	69.9	59.8	4.4	5.7	19.2	1.8	9.0	1.7	4.1	2.7	0.0
Oman	6,515	33.4	3.0	3.65	26.7	66.6	3.4	60.9	0.0	2.3	0.0	0.0
Qatar	5,562	55.1	1.0	3.2	50.8	44.9	1.5	36.7	0.2	4.3	0.0	2.3
Saudi Arabia	61,603	53.5	18.5	16.0	19.0	46.5	2.5	34.3	1.6	6.2	1.9	0.2
Syria	4,017	56.7	55.1	0.7	0.8	43.3	2.5	1.5	17.3	18.8	0.1	3.0
Tunisia	6,130	76.8	76.1	0.6	0.2	20.0	1.9	10.4	1.5	5.6	0.6	0.1
Turkey	26,246	57.2	48.2	8.1	0.8	42.8	2.8	4.6	18.8	10.7	0.9	4.9
UAE	30,442	46.3	4.8	2.9	38.6	53.7	2.2	29.6	0.9	7.8	0.1	13.3
Yemen	2,479	17.8	12.2	0.3	5.3	82.2	2.5	71.2	0.0	2.9	5.5	0.0
All MENA	216,675	50.3	32.4	5.7	12.2	48.9	3.3	23.7	5.2	11.4	1.4	3.9
All non-industrial countries	1908,775	53.7	21.7	21.7	10.3	46.3	2.7	26.4	6.6	2.8	5.0	2.8

Source: International Monetary Fund, Direction of Trade Statistics Yearbook, 1998.

Table 7: Main Export Partners of MENA Countries
(% Share in Total Exports)

Country	With oil				Without oil			
	1985		1997		1985		1997	
	Major partner	Share	Major partner	Share	Major partner	Share	Major Partner	Share
Algeria	France	30	Italy	21	France	35	Italy	27
	Italy	23	USA	16	Italy	25	France	16
	USA	10	France	16	USA	12	Spain	12
	Saudi		Saudi		Saudi		Saudi	
Bahrain	Arabia	16	Arabia	16	Arabia	16	Arabia	16
	Japan	14	Japan	13	Japan	14	Japan	13
Jordan			Asia Other				Asia Other	
	USA	11	NES	8	USA	11	NES	8
	Iraq	23	N/S	12	Iraq	23	N/S	12
			Saudi				Saudi	
Kuwait	India	15	Arabia	11	India	15	Arabia	11
	Saudi				Saudi			
	Arabia	14	Iraq	10	Arabia	14	Iraq	10
	N/S	28	N/S	95	N/S	28	N/S	89
Libya	Saudi				Saudi		Saudi	
	Arabia	25			Arabia	25	Arabia	2
	Iraq	15			Iraq	15	UAE	2
	Italy	31	Italy	36	Italy	25	Italy	33
Morocco			Netherlan					
	France	11	Germany	15	ds	20	Tunisia	12
	Netherlands	9	Spain	9	Spain	15	UK	9
	France	24	France	27	France	24	France	27
Oman	Spain	7	Spain	11	Spain	7	Spain	11
	Germany	7	India	8	Germany	7	India	8
	UAE	37	Japan	21	UAE	37	UAE	38
	USA	10	Thailand	17	USA	10	Iran	9
Qatar	Iran	7	China	17	Iran	7	N/S	7
	N/S	70	N/S	63	Japan	23	UAE	16
	Japan	7	UAE	6	UAE	16	Japan	15
			Saudi				Republic of	
Saudi Arabia	UAE	5	Japan	6	Arabia	10	Korea	12
			Special				Special	
	N/S	100	Categories	46	N/S	100	Categories	56
			USA	17			UAE	5
Sudan			Japan	12			USA	4
	Saudi		Saudi		Saudi		Saudi	
	Arabia	14	Arabia	20	Arabia	14	Arabia	20
	USA	8	UK	15	USA	8	UK	15
	Italy	7	China	8	Italy	7	China	8

Table 7: contd.

Country	With oil				Without oil			
	1985		1997		1985		1997	
	Major partner	Share	Major partner	Share	Major partner	Share	Major Partner	Share
Syria	Italy	31	Italy	25	Italy	33	Lebanon	20
					Former		Saudi	
	Romania	24	France	20	USSR	21	Arabia	13
	Former							
UAE	USSR	17	Turkey	10	France	7	Italy	9
	N/S	100	Japan	13	N/S	100	Japan	13
			Netherlan				Netherlands	
			ds	8			Germany	8
Tunisia			Germany	7			Germany	7
	France	27	France	25	France	27	France	25
	Italy	17	Italy	21	Germany	14	Italy	19
	Germany	11	Germany	15	Italy	14	Germany	16
Turkey	Germany	17	Germany	20	Germany	17	Germany	20
			Russian				Russian	
	Iran	14	Federation	8	Iran	14	Federation	8
	Iraq	12	USA	8	Iraq	12	USA	8
Egypt	Italy	18	USA	11	Italy	14	Italy	12
	Israel	12	Italy	11	Bunkers	13	Germany	8
					Former			
	Romania	12	Israel	8	USSR	10	Netherlands	8
Yemen			Netherlan					
	Netherlands	23	China	23	ds	23	Malaysia	21
			Republic				Saudi	
	India	14	of Korea	19	India	14	Arabia	17
	Japan	9	Japan	12	Japan	9	Bahrain	14

Note: N/S not specified; Source: UNCOMTRADE

Table 8: Geographic Diversification Index

	Including oil		Excluding oil	
	Mid-1980	Mid-1990	Mid-1980	Mid-1990
Algeria	0.41	0.34	0.46	0.37
Bahrain	-	-	0.28	0.27
Jordan	0.32	0.24	0.32	0.24
Kuwait	-	0.95	-	0.90
Libya	0.37	0.42	0.38	0.39
Morocco	0.29	0.33	0.29	0.33
Oman	-	0.36	-	0.41
Qatar	0.70	0.64	0.32	0.30
Saudi Arabia	-	0.51	-	0.57
Sudan	0.25	0.30	0.25	0.30
Syria	0.44	0.36	0.41	0.29
UAE	-	-	-	0.23
Tunisia	0.36	0.38	0.35	0.37
Turkey	0.29	0.26	0.29	0.26
Egypt	0.30	0.24	0.26	0.23
Yemen	0.32	0.37	0.32	0.33

Source: Author computation based on UNCOMTRADE data

Table 9: Intra-Regional Trade among Arab Countries, 1997

	Intra-Regional Exports			Intra-Regional Imports		
	Value (US\$ million)	Share in Region (%)	Share in Own Total Exports (%)	Value (US\$ million)	Share in Region (%)	Share in Own Total Imports (%)
Middle East Region	10,465	100.0	8.6	11,122	100.0	10.8
<i>GCC countries</i>	8,291	79.1	7.6	8,251	69.2	8.5
Bahrain	516	4.2	10.2	2,147	3.8	8.9
Kuwait	391	3.8	2.7	1,067	11.4	12.9
Oman	762	7.3	10.2	1,473	15.8	29.3
Qatar	354	3.4	8.6	523	5.6	14.5
Saudi Arabia	4,381	42.2	8.3	1,638	17.5	6.0
United Arab Emirates	1,887	18.2	7.5	1,403	15.0	5.0
<i>More diversified economies</i>	2,174	20.9	17.7	2,871	30.8	9.3
Egypt	374	3.6	9.6	564	6.0	4.3
Jordan	714	6.9	47.5	918	9.8	22.4
Lebanon	289	2.8	45.0	619	6.6	8.3
Syrian Arab Republic	785	7.5	20.0	269	2.9	6.7
Yemen	39	0.4	1.7	501	5.4	24.6

Source: ESCWA, Survey of Economic and Social Developments in the ESCWA Region, 1999.

Table 10: Revealed Comparative Advantage among MENA Countries

Exporter	Year	RCA Indices for Processed Products Classified by Major SITC Groups								
		Food & Live Animals Chiefly for Food	Beverages & Tobacco	Crude Materials, Inedible, Ex. Fuels	Mineral Fuels, Lubricants & Related Materials	Animal & Vegetable Oils, Fats & Waxes	Chemicals & Related Products	Mfg. Goods Classified Chiefly by Material	Machinery & Transport Equipment	Misc. Mfg. Articles
Algeria	1985	0.01	0.43	0.06	7.46	0.11	0.02	0.01	0.00	0.00
	1997	0.03	0.04	0.10	15.31	0.00	0.12	0.06	0.00	0.01
Bahrain	1996	0.45	0.42	0.30	0.00	5.55	0.98	4.52	0.08	0.79
Jordan	1985	1.72	0.60	5.83	0.00	0.07	1.91	0.82	0.42	0.76
	1997	2.58	0.40	6.68	0.01	16.56	2.30	0.70	0.31	0.44
Kuwait	1987	1.01	0.09	0.62	0.03	0.66	2.58	1.13	0.73	1.04
	1997	0.05	0.02	0.08	14.97	0.07	0.16	0.06	0.04	0.03
Morocco	1985	3.04	0.20	5.14	0.30	0.03	2.42	0.53	0.03	1.14
	1997	4.41	0.17	4.46	0.31	2.44	2.26	0.57	0.07	1.44
Oman	1985	1.98	0.97	0.27	0.01	0.21	0.09	0.54	1.62	0.33
	1997	0.36	1.34	0.12	12.03	0.39	0.06	0.15	0.29	0.21
Qatar	1989	0.01	0.01	0.07	11.79	0.01	1.33	0.30	0.03	0.02
	1994	0.07	0.00	0.05	12.16	0.00	1.71	0.38	0.04	0.15
Saudi	1985	0.04	0.04	0.04	7.22	0.00	0.32	0.03	0.04	0.03
	1996	0.09	0.02	0.09	11.99	0.06	0.75	0.13	0.03	0.02
Sudan	1996	3.96	0.00	13.89	0.00	6.67	0.00	0.43	0.01	0.00
Syria	1985	0.31	0.10	2.00	5.66	0.00	0.35	0.31	0.03	0.31
	1997	2.38	0.21	2.35	10.26	0.66	0.05	0.23	0.01	0.44
UAE	1985	1.69	1.36	0.44	0.17	0.15	0.51	1.78	0.75	1.27
	1993	0.78	1.34	0.92	0.80	1.21	0.63	2.58	0.26	1.97
Tunisia	1985	0.74	0.43	0.58	3.23	3.90	1.96	0.33	0.11	1.89
	1997	0.68	1.42	0.51	1.43	9.69	1.35	0.60	0.27	3.49
Turkey	1985	2.38	4.01	1.42	0.36	1.13	0.43	2.03	0.24	1.76
	1997	2.33	2.51	0.74	0.12	2.08	0.43	1.94	0.31	2.27
Egypt	1985	0.61	0.33	2.24	5.21	0.01	0.09	0.75	0.00	0.11
	1997	1.03	0.05	1.46	7.14	0.66	0.55	1.67	0.03	0.78
Yemen	1995	0.34	0.17	0.28	16.80	0.19	0.01	0.03	0.02	0.03

Note: RCA in fuels may be small for some GCC countries (Oman, UAE, Bahrain) due to under-reporting of oil exports in UNCOMTRADE

Source: Author calculations based on UNCOMTRADE

Table 11: Intra-Industry Trade Index

	IIT with World			IIT with Region		
	1985	1997	Period Average	1985	1997	Period Average
Algeria	0.01	0.04	0.05	0.04	0.08	0.08
Bahrain	0.21	0.24	0.23	0.08	0.07	0.07
Jordan	0.30	0.33	0.31	0.07	0.14	0.14
Kuwait	0.20	0.12	0.16	0.21	0.16	0.18
Lybia	-	-	0.03	-	-	0.09
Morocco	0.12	0.17	0.17	0.05	0.16	0.11
Oman	0.16	0.49	0.32	0.10	0.11	0.13
Qatar	0.09	0.12	0.13	0.04	0.05	0.05
Saudi Arabia	0.13	0.17	0.13	0.13	0.08	0.10
Sudan	-	0.02	0.01	-	0.03	0.01
Syria	0.09	0.08	0.09	0.10	0.11	0.08
UAE	-	-	0.20	-	0.17	0.16
Tunisia	0.20	0.32	0.29	0.17	0.20	0.15
Turkey	0.35	0.37	0.32	0.01	0.02	0.03
Egypt	0.04	0.18	0.13	0.07	0.21	0.14
Yemen	-	0.07	0.04	-	0.17	0.09

Note: Start year and end year vary for countries according to data availability. IIT index is weighted average of IIT at 3-digit SITC; period average is simple average.

Source: Author computations based on UNCOMTRADE

Table 12: Export Share Correlations in Intra-Regional and World Trade (Above Diagonal: Correlations in Regional Market; Below Diagonal: Correlations in World Market)

	With Oil													
	Algeria	Bahrain	Jordan	Kuwait	Morocco	Oman	Saudi Arabia		Sudan	Syria	UAE	Tunisia	Turkey	Egypt
Algeria	1.00	-0.02	-0.04	-0.02	0.06	0.30	0.17	0.45	-0.09	0.18	0.13	0.08	0.02	0.22
Bahrain	-0.01	1.00	0.01	0.02	0.17	0.00	-0.01	0.01	-0.05	0.01	-	0.25	-0.01	0.04
Jordan	-0.02	-0.01	1.00	-0.01	0.07	0.00	-0.01	0.01	-0.05	0.02	0.00	0.06	0.03	0.06
Kuwait	0.86	0.01	0.12	1.00	0.01	0.11	-0.01	0.04	-0.03	-0.01	0.04	0.00	0.00	-0.02
Morocco	0.06	0.03	0.58	0.04	1.00	0.00	0.01	0.09	0.02	-0.01	-0.04	0.57	0.02	0.07
Oman	0.74	0.02	0.02	0.97	-0.01	1.00	0.04	0.32	-0.03	0.11	0.13	-0.01	0.02	0.04
Qatar	0.84	-0.01	0.09	0.98	0.04	0.99	1.00	0.12	-	0.19	0.22	0.01	0.19	0.06
Saudi Arabia	0.81	0.01	0.01	0.97	0.02	0.97	0.99	1.00	-0.02	0.20	0.26	0.07	0.04	0.06
Sudan	-0.05	-0.12	-0.09	-0.13	-0.08	-0.11	-	-0.04	1.00	-0.03		-0.06	0.17	-0.01
Syria	0.80	-0.01	0.09	0.90	0.13	0.86	0.87	0.93	0.32	1.00	0.19	0.00	0.06	0.28
UAE	0.05	-	-0.01	-0.01	0.03	0.04	0.01	0.02	-	0.09	1.00	-0.02	0.04	0.05
Tunisia	0.41	0.03	0.15	0.37	0.51	0.44	0.51	0.49	0.08	0.51	0.08	1.00	0.02	0.03
Turkey	0.01	0.02	0.04	-0.03	0.31	-0.02	0.01	0.00	-0.07	0.10	0.10	0.34	1.00	0.10
Egypt	0.70	0.22	0.02	0.74	0.10	0.78	0.87	0.82	0.05	0.78	0.23	0.50	0.21	1.00

Table 12: contd.

Without Oil														
	Saudi													
	Algeria	Bahrain	Jordan	Kuwait	Morocco	Oman	Qatar	Arabia	Sudan	Syria	UAE	Tunisia	Turkey	Egypt
Algeria	1.00	-0.02	-0.04	-0.02	0.06	0.18	0.17	0.06	-0.09	0.03	0.13	-0.01	0.02	0.02
Bahrain	-0.01	1.00	0.01	0.02	0.17	0.00	-0.01	0.01	-0.05	0.01	-	0.25	-0.01	0.04
Jordan	-0.02	-0.01	1.00	-0.01	0.07	0.00	-0.01	0.00	-0.05	0.02	0.00	0.06	0.03	0.06
Kuwait	0.20	0.01	0.12	1.00	0.01	0.11	-0.01	0.04	-0.03	-0.01	0.04	0.00	0.00	-0.02
Morocco	0.10	0.03	0.58	0.21	1.00	0.00	0.01	0.09	0.01	-0.01	-0.04	0.57	0.01	0.07
Oman	0.04	0.02	0.02	0.11	0.01	1.00	0.04	0.13	-0.03	0.08	0.13	-0.01	0.02	0.03
Qatar	0.70	0.00	0.09	0.08	0.21	0.13	1.00	0.12	-	0.19	0.22	0.01	0.19	0.06
Saudi Arabia	0.67	0.00	0.01	0.02	0.11	0.10	0.70	1.00	-0.02	0.12	0.26	0.02	0.04	0.03
Sudan	-0.05	-0.12	-0.09	-0.13	-0.08	-0.11	-	-0.04	1.00	-0.03	-	-0.06	0.17	-0.01
Syria	0.51	-0.01	0.09	0.15	0.18	0.03	0.31	0.57	0.32	1.00	0.19	-0.01	0.06	0.23
UAE	0.06	-	-0.01	0.01	0.03	0.10	0.04	0.06	-	0.09	1.00	-0.02	0.04	0.05
Tunisia	0.03	0.03	0.15	0.18	0.51	0.00	0.13	0.07	0.08	0.12	0.08	1.00	0.01	0.00
Turkey	0.04	0.02	0.04	0.01	0.31	0.03	0.19	0.08	-0.07	0.29	0.10	0.37	1.00	0.10
Egypt	0.34	0.22	0.02	0.23	0.12	0.10	0.32	0.42	0.05	0.54	0.32	0.12	0.32	1.00

Note: correlations are undertaken for the period 1985-97.

Source: UNCOMTRADE (3-digit SITC)

Appendix 1:

Table A.1: Revealed Comparative Advantage among MENA Countries: Top 10 Products with RCA>1

Country	1985		1997	
	Commodity	RCA	Commodity	RCA
Algeria	341 Gas, natural & manufactured	21	341 Gas, natural & manufactured	38
	334 Petroleum products, refined	9	333 Petroleum oils, crude	15
	333 Petroleum oils, crude	4	334 Petroleum products, refined	8
	271 Fertilizers, crude	3	271 Fertilizers, crude	6
			244 Cork, natural, raw & waste	6
			335 Residual petroleum products	5
			686 Zinc	2
			522 Inorganic chemicals, oxides & halogen salts	2
			671 Pig iron & iron, steel powders	1
			633 Cork manufactures	1
Bahrain	684 Aluminum	72	684 Aluminum	66
	671 Pig iron & iron, steel powders	58	671 Pig iron & iron, steel powders	52
	512 Alcohols & phenols	27	424 Other fixed vegetable oils	16
	424 Other fixed vegetable oils	18	046 Meal and flour of wheat and of meslin	14
	522 Inorganic chemicals, oxides & halogen salts	15	522 Inorganic chemicals, oxides & halogen salts	13
	844 Under garments of textile fabrics	5	512 Alcohols & phenols	13
	282 Waste and scrap metal of iron or steel	4	844 Under garments of textile fabrics	10
	843 Outer garments, women's, of textile fabrics	4	047 Other cereal meals and flours	5
	691 Structures of iron, steel or aluminum	4	531 Synthetic organic dyestuffs	5
	274 Sulphur & iron pyrites	3	843 Outer garments, women's, of textile fabrics	4
Jordan	271 Fertilizers, crude	432	271 Fertilizers, crude	764
	046 Meal and flour of wheat and of meslin	21	431 Animal and vegetable oils, fats, and waxes	114
	025 Eggs, birds', & egg yolks	20	001 Live animals chiefly for food	38
	562 Fertilizers, manufactured	20	562 Fertilizers, manufactured	31
	635 Wood manufactured	17	274 Sulphur & iron pyrites	29
	661 Lime, cement & construction material	14	025 Eggs, birds', & egg yolks	21

Table A.1: contd.

Country	1985		1997	
	Commodity	RCA	Commodity	RCA
Kuwait	054 Vegetables, fresh, chilled, roots, tubers	13	661 Lime, cement & construction material	18
	654 Textile fabrics, excl. cotton/man-made fibers	9	554 Soap, cleansing & polishing preparations	15
	792 Aircraft & associated equipment & parts	5	054 Vegetables, fresh, chilled, roots, tubers	14
	842 Outer garments, men's, of textile fabrics	5	523 Compounds of precious metals	6
	562 Fertilizers, manufactured	24	335 Residual petroleum products	67
	522 Inorganic chemicals, oxides & halogen salts	24	333 Petroleum oils, crude	19
	883 Cinematograph film, exposed & developed	22	334 Petroleum products, refined	16
	075 Spices	15	341 Gas, natural & manufactured	5
	971 Gold, non-monetary	14	562 Fertilizers, manufactured	3
	786 Trailers & other vehicles, not motorized	10	522 Inorganic chemicals, oxides & halogen salts	1
Libya	014 Meat and edible meat offals; fish extracts	8	584 Regenerated cellulose	1
	288 Non-ferrous base metal waste and scrap	7		
	551 Essential oils, perfume, & flavor materials	7		
	664 Glass	6		
	333 Petroleum oils, crude	15	675 Hoop & strip of iron or steel	571
	334 Petroleum products, refined	2	333 Petroleum oils, crude	29
	512 Alcohols & phenols	2	334 Petroleum products, refined	9
	562 Fertilizers, manufactured	1	677 Iron or steel wire	6
			562 Fertilizers, manufactured	5
			511 Hydrocarbons	4
Morocco			341 Gas, natural & manufactured	2
	271 Fertilizers, crude	307	271 Fertilizers, crude	341
	522 Inorganic chemicals, oxides & halogen salts	33	244 Cork, natural, raw & waste	53
	685 Lead	25	522 Inorganic chemicals, oxides & halogen salts	42
	244 Cork, natural, raw & waste	24	036 Crustacean & mollusks	30

Table A.1: contd.

Country	1985	RCA	1997	RCA
	Commodity		Commodity	
Oman	037 Fish, crustacean & mollusks	19	562 Fertilizers, manufactured	27
	036 Crustacean & mollusks	19	685 Lead	24
	633 Cork manufactures	15	056 Vegetables, roots and tubers	22
	056 Vegetables, roots and tubers	15	037 Fish, crustacean & mollusks	22
	057 Fruit & nuts, fresh or dried	13	057 Fruit & nuts, fresh or dried	11
	562 Fertilizers, manufactured	11	054 Vegetables, fresh, chilled, roots, tubers	10
	034 Fish, fresh, chilled or frozen	13	941 Animals, live (including zoo animals)	39
	046 Meal and flour of wheat and of meslin	13	333 Petroleum oils, crude	28
	682 Copper	10	046 Meal and flour of wheat and of meslin	7
	036 Crustacean & mollusks	10	122 Tobacco, manufactured	4
	931 Special transactions & commodities	9	034 Fish, fresh, chilled or frozen	2
	723 Civil engineering & contractors' plant	9	723 Civil engineering & contractors' plant	2
	273 Stone, sand & gravel	8	001 Live animals chiefly for food	2
	245 Fuel wood & wood charcoal	7	273 Stone, sand & gravel	2
	782 Motor vehicles for the transport of goods	6	035 Fish, dried, salted, or in brine; smoked fish	2
Qatar	057 Fruit & nuts, fresh or dried	5	783 Road motor vehicles	1
	333 Petroleum oils, crude	22	333 Petroleum oils, crude	21
	673 Iron & steel bars, rods,	8	562 Fertilizers, manufactured	13
	562 Fertilizers, manufactured	7	673 Iron & steel bars, rods,	11
	274 Sulphur & iron pyrites	4	582 (Poly)Condensation & polyaddition products	11
	583 Road motor vehicles	4	274 Sulphur & iron pyrites	7
	334 Petroleum products, refined	4	341 Gas, natural & manufactured	7
	341 Gas, natural & manufactured	3	522 Inorganic chemicals, oxides & halogen salts	5
	511 Hydrocarbons	3	511 Hydrocarbons	4
	582 (Poly)Condensation & polyaddition products	2	334 Petroleum products, refined	4

Table: A.1: contd.

Country	1985	RCA	1997	RCA
	Commodity		Commodity	
Saudi Arabia	522 Inorganic chemicals, oxides & halogen salts	1	583 Road motor vehicles	2
	333 Petroleum oils, crude	13	333 Petroleum oils, crude	20
	341 Gas, natural & manufactured	4	334 Petroleum products, refined	7
	334 Petroleum products, refined	3	512 Alcohols & phenols	6
	512 Alcohols & phenols	2	516 Other organic chemicals	4
	269 Old clothing & other old textile articles, rags	2	562 Fertilizers, manufactured	2
	783 Road motor vehicles	2	269 Old clothing & other old textile articles, rags	2
	522 Inorganic chemicals, oxides & halogen salts	1	511 Hydrocarbons	2
			522 Inorganic chemicals, oxides & halogen salts	2
			274 Sulphur & iron pyrites	2
Sudan			693 Wire products and fencing grills	1
	941 Animals, live (including zoo animals)	149	223 Oil seeds and oleaginous fruit, for fixed oils	287
	045 Cereals, unmilled	133	263 Cotton	122
	263 Cotton	131	222 Oil seeds and oleaginous fruit, for "soft" oils	79
	292 Crude vegetable materials	80	001 Live animals chiefly for food	62
	423 Fixed vegetable oils, soft, crude, refined...	62	061 Sugar and honey	24
	223 Oil seeds and oleaginous fruit, for fixed oils	57	971 Gold, non-monetary	21
	222 Oil seeds and oleaginous fruit, for "soft" oils	44	292 Crude vegetable materials	21
	001 Live animals chiefly for food	34	423 Fixed vegetable oils, soft, crude, refined	15
	611 Leather	19	011 Meat and edible meat offals; fresh, frozen	10
	061 Sugar and honey	9	271 Fertilizers, crude	5

Table A.1: contd.

Country	1985		1997	
	Commodity	RCA	Commodity	RCA
Syria	263 Cotton	33	263 Cotton	54
	271 Fertilizers, crude	16	045 Cereals, unmilled	36
	846 Under garments, knitted or crocheted	11	271 Fertilizers, crude	33
	941 Animals, live (including zoo animals)	9	333 Petroleum oils, crude	22
	553 Perfumery, cosmetics & toilet preparations	9	075 Spices	13
	333 Petroleum oils, crude	8	054 Vegetables, fresh, chilled, roots, tubers	13
	334 Petroleum products, refined	6	223 Oil seeds and oleaginous fruit, for fixed oils	10
	001 Live animals chiefly for food	5	041 Wheat (including spelt) & meslin, unmilled	8
	554 Soap, cleansing & polishing preparations	5	001 Live animals chiefly for food	8
	652 Cotton fabrics, woven	4	057 Fruit & nuts, fresh or dried	6
UAE	111 Non-alcoholic beverages	22	684 Aluminum	46
	659 Floor coverings	15	091 Margarine & shortening	24
	661 Lime, cement & construction material	14	846 Under garments, knitted or crocheted	21
	042 Rice	13	111 Non-alcoholic beverages	19
	684 Aluminum	13	844 Under garments of textile fabrics	17
	899 Other misc. manufactured articles	11	288 Non-ferrous base metal waste and scrap	12
	046 Meal and flour of wheat and of meslin	10	691 Structures of iron, steel or aluminum	11
	057 Fruit & nuts, fresh or dried	9	014 Meat and edible meat offals; fish extracts	10
	693 Wire products and fencing grills	7	793 Ships, boats & floating structures	10
	628 Articles of rubber	6	282 Waste and scrap metal of iron or steel	10
Tunisia	271 Fertilizers, crude	26	842 Outer garments, men's, of textile fabrics	31
	562 Fertilizers, manufactured	19	271 Fertilizers, crude	27
	842 Outer garments, men's, of textile fabrics	18	047 Other cereal meals and flours	26
	244 Cork, natural, raw & waste	13	423 Fixed vegetable oils, soft, crude, refined	21
	522 Inorganic chemicals, oxides & halogen salts	12	612 Manufactures of leather	19

Table A.1: contd.

Country	1985		1997	
	Commodity	RCA	Commodity	RCA
	612 Manufactures of leather	12	562 Fertilizers, manufactured	18
	423 Fixed vegetable oils, soft, crude, refined...	9	522 Inorganic chemicals, oxides & halogen salts	15
	844 Under garments of textile fabrics	8	843 Outer garments, women's, of textile fabrics	14
	036 Crustacean & mollusks	8	244 Cork, natural, raw & waste	10
	333 Petroleum oils, crude	7	844 Under garments of textile fabrics	10
Turkey	848 Articles of apparel and clothing accessories	24	046 Meal and flour of wheat and of meslin	19
	121 Tobacco, unmg'd; tobacco refuse	18	121 Tobacco, unmg'd; tobacco refuse	17
	025 Eggs, birds', & egg yolks	13	091 Margarine & shortening	12
	057 Fruit & nuts, fresh or dried	12	846 Under garments, knitted or crocheted	11
	278 Other crude minerals	10	658 Made-up articles, wholly or chiefly of textile	11
	263 Cotton	9	673 Iron & steel bars, rods,	10
	846 Under garments, knitted or crocheted	9	845 Outer garments, knitted or crocheted	10
	054 Vegetables, fresh, chilled, roots, tubers	8	057 Fruit & nuts, fresh or dried	9
	001 Live animals chiefly for food	8	062 Sugar confectionery	9
	844 Under garments of textile fabrics	8	659 Floor coverings	7
Egypt	263 Cotton	42	323 Briquettes; coke and semi-coke of coal	24
	333 Petroleum oils, crude	9	263 Cotton	23
	651 Textile yarn	7	265 Vegetable textile fibers	18
	941 Animals, live (including zoo animals)	5	335 Residual petroleum products	15
	684 Aluminum	5	941 Animals, live (including zoo animals)	15
	057 Fruit & nuts, fresh or dried	5	042 Rice14	
	334 Petroleum products, refined	3	245 Fuel wood & wood charcoal	14
	054 Vegetables, fresh, chilled, roots, tubers	3	334 Petroleum products, refined	13
	652 Cotton fabrics, woven	3	651 Textile yarn	11

Table A.1: contd.

Country	1985	RCA	1997	RCA
	Commodity		Commodity	
Yemen	265 Vegetable textile fibers	3	662 Clay & refractory construction materials	10
	335 Residual petroleum products	109	333 Petroleum oils, crude	33
	334 Petroleum products, refined	31	335 Residual petroleum products	21
	036 Crustacean & mollusks	16	291 Crude animal materials	5
	291 Crude animal materials	8	071 Coffee and coffee substitutes	5
	034 Fish, fresh, chilled or frozen	3	282 Waste and scrap metal of iron or steel	2
	071 Coffee and coffee substitutes	3	211 Hides and skins (except fur skins), raw	2
	288 Non-ferrous base metal waste and scrap	3	334 Petroleum products, refined	1
	263 Cotton	2	273 Stone, sand & gravel	1
	278 Other crude minerals	1		

Note: Some countries have less than 10 products at the 3-digit SITC level with RCA>1.

Source: Author computation based on UNCOMTRADE.