Strengthening MENA's Trade and Investments Links with China and India

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ACRONYMS AND INITIALS

ADS	Approved destination status
ASEAN	Association of Southeast Asian Nations
BoP	Balance of payments
BPO	Business process outsourcing
CGEM	General Confederation of Moroccan Enterprises
CIC	China Investment Corporation
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Company
EC	European Commission
ECA	East Europe and Central Asia
EDP	Economic Development and Prospects
EU	European Union
FDI	Foreign direct investment
FTA	Free trade agreement
GATS	General Agreement on Trade in Services
GCC	Gulf Cooperation Council
GDP	Gross domestic products
GTAP	Global Trade Analysis Project
ICT	Information and communication technologies
IIF	Institute of International Finance
IMF	International Monetary Fund
IT	Information technology
IPO	Initial public offering
LAC	Latin America and the Caribbean
LPI	Logistics Performance Index
MEDA	Multilateral Effective Development Assistance
MENA	Middle East and North Africa
MIGA	Multilateral Investment Guarantee Agency
OECD	Organization for Economic Co-operation and Development
PPP	Purchasing power parity
RCA	Revealed comparative advantage
SITC	Standard International Trade Classification
SMART	Software for Market Access and Restrictions to Trade
TCS	Tata Consultancy Services
TFP	Total factor productivity
UAE	United Arab Emirates
UN Comtrade	United Nations Commodity Trade
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
UNWTO	United Nations World Tourism Organization
WDI	World Development Indicators
WTO	World Trade Organization

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EXECUTIVE SUMMARY

STRENGTHENING MENA'S TRADE AND INVESTMENT LINKS WITH CHINA AND INDIA

1.   China and India's spectacular economic rise over the last two decades has accelerated their trade with Africa, Latin America, and the Middle East and North Africa (MENA). Their demands for oil, gas, and other natural resources have been driving new relationships with MENA countries based not only on energy but on trade, investment, and political ties. Indeed, Dubai has become the new Silk Road—the intersection where people, capital, and ideas meet—and Beijing, Shanghai, Hong Kong, Mumbai, Riyadh, and Cairo are the new centers.

2.   The report's main messages are as follows:

- MENA is becoming a region of winners from the oil windfall—and of non-oil producers on the sidelines. Rising demand for energy from China and India has greatly contributed to the increase in oil price and is likely to sustain the oil boom in the future.

- The winners in the Gulf are laying big bets on economic diversification and knowledge enterprises—bets they might win, but with lots of risk along the way. Dutch disease effects of the oil boom may threaten the sustainability of the current expansion.

- The non-oil producers on the sidelines, especially in the Maghreb, are finding it difficult to compete with China and India in both third and domestic markets. The lack of competitive manufacturing industries and services, the insufficient attention given in the past to building technological capabilities and promoting openness and entrepreneurship are constraining their ability to respond to competition. They need to accelerate productivity to tackle unemployment, especially among youth.

- Both groups of MENA countries need to foster a culture of growth to overcome the complacency instilled by oil windfalls and government subsidies. To do this, they might look to China and India as models of pro-growth strategies.

- The growth of China and India offers new market opportunities for the countries in MENA. Besides energy, potential opportunities—for fertilizers, petrochemicals, crude materials, agricultural products, and a number of manufactured goods where MENA has strong comparative advantages—remain unexploited.

The MENA region is booming, but sustaining growth is an issue

3.   The MENA region is enjoying strong economic growth for the fifth year in a row, almost 6 percent, driven by high oil prices, acceleration in market-oriented reforms, and deeper integration in the region and with the rest of the world. The rise in oil prices from about $25 in 2002 to almost $140 in mid-2008 has brought an unprecedented windfall to the resource-rich countries. With a large part of the oil revenues invested abroad, particularly through sovereign wealth funds, net financial outflows have tripled since 2002. The region has also experienced a record increase in foreign direct investment (FDI) flows, accounting for more than 4.7 percent of world FDI inflows in 2006, up from an average of 1.8 percent in 2000–04. Oil-producing nations have intensified their efforts to diversify the economy. In the six resource-rich countries of the Gulf Cooperation Council (GCC), the non-oil sector now accounts for a remarkable 60–70 percent of GDP and a massive program of infrastructure and social spending in underway.

4.   The oil boom has improved the region's terms of trade with China and India: MENA's export prices to China and India doubled in 2004–06, while import prices rose by 25–30 percent. But the benefits are not distributed evenly. Oil producers have profited. The nonoil-producing countries are indirectly benefiting from the oil windfall through a surge of intraregional foreign investments in real estate and land, an exceptional increase in tourism and a rise in immigrant remittances. The region as a whole worries about the sustainability of this growth, as investments in non-tradable goods affect the competitiveness of exports. Many labor-abundant, nonoil-producing countries struggle with the rise in inflation caused by high food and property prices and growing fiscal deficits due to large energy subsidies. And they face the challenge of providing employment for a labor force that is growing at 4 percent a year, the highest in the world. Unemployment of 13 percent of the labor force, despite recent declines, falls disproportionately on the region's youth. Expanding trade with the fast-growing Asian countries may provide growth and employment opportunities.

MENA countries are looking East

5.   While exports to China and India still represent a small share of MENA's total exports (6.4 and 8.2 percent respectively in 2006), their rate of growth has been impressive—41.1 percent for China and 37.5 percent for India over 2004–06. Some 60 percent of these exports are represented by fuels, followed by chemical and resource-based products, fertilizers, iron, and aluminum. Interestingly, Saudi Arabia has displaced South Korea as the leading supplier of petrochemical products to China's textile industry. More than half of China and India's energy imports come from MENA, and this share is expected to increase. Equally impressive has been the increase in MENA's imports from China and India: they now represent 8.5 and 4.5 percent respectively of MENA's imports. They are diversified, including rice and other agriculture commodities, machinery, electronics, telecommunication goods, and manufactured goods. Qatar, the Emirates, and other Gulf countries have specialized in re-exporting, confirming their role as regional hubs.

6.   The volume of financial flows has traditionally been very small. Official figures suggest that in 2005, China received 0.2 percent of its FDI inflows from MENA, India around 1.5 percent. But anecdotal evidence indicates that these flows are growing rapidly. Private and institutional Gulf investors are making strategic investments in Asia and holding a diversified portfolio of assets, with emphasis on equity and equity-like instruments. And Asian companies have invested heavily in the downstream oil industry, while opening their industries to participation from the Gulf. MENA attracts 2 percent of Chinese FDI, mostly to the oil-rich countries; and it has received 5 percent of Indian cumulative FDI since 2000. The energy sector is the main recipient, and oil-rich countries are the main destination. But FDI from China and India is also rising in construction, tourism, telecommunications, software and engineering services, readymade garments, chemical products, and food.

Competing with China and India's non-oil exports has proved difficult in third markets…

7   Over the last decade most countries in MENA have seen their global market share of non-oil exports stagnate or fall. Moreover, while China's share of the EU market has risen dramatically, the importance of the EU as a market for the non-oil exports of MENA countries has declined, and significantly so for some countries. China and India have displaced some non-oil exports on third markets, with China a much fiercer competitor than India, especially in electronics, textiles, and apparel. Labor-abundant MENA countries, perhaps because they could count on privileged access to EU markets (and to some US markets), have been less severely affected than GCC countries by competition with the Asian countries. Exports from GCC countries that competed with China and India have been deeply affected, with some vanishing.

…and in domestic markets

8.   Imports from China and India have lowered consumer prices but increased competition for domestic producers in labor-abundant countries. Pressures have been stronger in labor-intensive industries, including textiles, leather, and furniture. Skilled-labor and technology-intensive manufacturing was less affected, but it is a small share of domestic production. For GCC countries Chinese and Indian products appear to be more complementary, and the competition with domestically produced goods is more moderate. Interestingly, imports from China and India have grown strongly despite above-average import protection, particularly in Morocco and Tunisia. There have been some import surges, and their impact on domestic producers needs to be analyzed.

9.   MENA countries are participating very little in global production networks. Intraindustry trade is low and only reaches 20–25 percent of manufacturing trade in some MENA countries (Tunisia, Egypt), very far from the 70 percent for China and other East Asian countries. Indicators of component trade are comparatively low, and are reflected in the limited technology content of MENA's imports and exports. This poor integration prevents MENA countries from benefiting from the knowledge spillovers that usually occur within production networks. Limited FDI in manufacturing and the small size of many MENA economies may explain these outcomes. There are signs, however, of MENA's increasing integration with Chinese and Indian production networks for goods destined for the European Union and the United States, particularly in the textile and power-generating machinery sectors. The major impediment to further integration with China and India may be the large distance, which results in very high transaction costs for trade.

Opportunities to export to China and India remain unexploited

10.   In response to global competition in their main market (the EU), many MENA countries have started diversifying into new markets and, to a lesser extent, into new products. While this will provide a base for stronger growth in the future, many opportunities to export remain unexploited. In particular, less than 10 percent of potential opportunities in the Chinese and Indian markets have been exploited. Many MENA products with strong comparative advantages, doing well in international markets, have underperformed in China (fertilizers, vegetables, crude materials). Even in India a third of products with high comparative advantages show lackluster growth, among them wood, aluminum, chemicals, and yarns. Indeed, less than 10 percent of the potential opportunities in the Chinese and Indian markets have been exploited. Why? In part because of trade policy and logistical constraints between MENA countries. And in part because of the substantial trade barriers facing non-oil exports in Asian markets, notably in India.

China and India's investment in MENA's merchandise sectors is small

11.   Contrary to other regions, there appears to be little complementarity between trade in non-oil products and investment between MENA and the Asian countries. Outside energy, China and India invest mainly in services and very little in manufacturing. Most of their FDI goes to resource-rich countries with higher GDPs. Chinese and Indian firms are also looking to export goods and services to third markets, using MENA countries as a warehouse platform, rather than a production place.

12.   Overall, China and India have not established strong links with domestic firms in MENA or added to their production capacity. Nor do they contribute much to job creation or to the transfer and diffusion of technology. This is due partly to their investment strategies and the business models for implementing them—but also to constraints in the region that might prevent FDI from generating positive spillovers. What's missing in MENA? High-quality skills, a supplier network that permits specialization and competitive costs, and a suitable physical, scientific, and institutional infrastructure.

Why non-oil exports are weak

13.   Reforms have been slow and not deep enough to result in the type of structural transformation and export diversification that has occurred elsewhere. High tariff and non-tariff protection still bias the allocation of resources within sectors towards exports. In earlier studies, high trade protection has been identified as a key constraint to export diversification in the region. The vast majority of MENA countries also perform poorly in trade logistics, below their income peers. By contrast, both China and India perform better than their income peers in trade logistics, which lowers their transactions costs, including those with MENA countries.

14.   Preferential agreements with the EU have not helped MENA countries withstand competition from China and India. They have partially helped maintaining a market in Europe, but the EU rules of origin may currently impede MENA's further export growth. They are strict, requiring a double transformation in qualifying countries. As a result, most of the inputs MENA producers use for exports to the EU comes from Europe. Preferential agreements have thus locked MENA producers into production structures that shelter them from competition and handcuff their ability to source inputs from other locations. The business environment has improved everywhere in MENA, including the institutional and regulatory regime for FDI. But foreign investors lament a lack of skills most. MENA countries score well below the Asian countries on "people and skills availability." Investment in human capital is needed to improve the quality of skills of the labor force and the absorption capacity of domestic economies, the keys to technology transfers and knowledge spillovers.

15.   Finally, MENA's non-oil exports to China and India are small, partially because access to Chinese and Indian markets is limited. Petroleum can enter China duty-free and is subject to a 10 percent duty in India. But non-fuel shipments to these two markets face substantial trade barriers, especially in India. The two Asian countries have opened significantly over the past decade, but simple averages of most-favored-nation duties continue at about 10 percent in China and more than 18 percent in India.

Is MENA taking advantage of the opportunities in services?

16.   China and India are major players in the services trade, and their services exports have grown at a faster pace than in MENA. Overall, MENA countries remain small players, although a few— Morocco, Egypt, Lebanon, and Tunisia—rank among the 30 largest net exporters of services in the world. The region is also emerging as a strong tourist destination, with Saudi Arabia and Egypt leading the way. Located on the fastest growing Asia-Europe trade route, the region aims at becoming a hub for services facilitating the transit of goods and people. Tunisia and the Gulf countries are achieving global standards in medical services. And Dubai and Qatar, with their "knowledge cities," hope to become global centers of excellence in the knowledge business.

17.   However, MENA countries maintain behind-the-border barriers to services trade and are minimally exposed to foreign competition (including from India and China). Most countries in the region have only made GATS commitments on fewer than half of the services sectors. Air, road, and maritime transportation could become leading sectors, if reforms are undertaken. The case is strong for further regional trade integration in services. Most global law firms serve their MENA clients through their offices in Europe, mainly because of the high segmentation of the MENA market. Harmonizing standards and regulatory requirements could help regional firms reach a critical size for exports. The region has already tapped the Chinese and Indian worker pools in some sectors, but labor movements and technology transfers remain sensitive, and trade linkages and leakages could be further explored.

What will the continuing growth of China and India imply for MENA?

18.   Our analysis shows that China and India will account for more than 50 percent of the incremental demand for oil in the next 10 years or so. The region as a whole is expected to benefit from an acceleration of growth in China and India, but most of the gains will accrue through improvements in the terms of trade, associated with higher world prices for energy products and some agricultural products. The gains are even larger if China and India improve the quality and variety of their exports, but they will be unevenly distributed. Oil-producing countries are the likely winners. Stiffer competition in third and domestic markets is likely to result in a decline of manufactured exports from nonoil-producing countries, challenging their growth prospects. Exports of resource-based and agricultural products, however, would increase. Large declines are expected in MENA for machinery, equipment, electronics, textile and garments, and other manufactured goods. So, all MENA countries will face increasing pressure to adjust their domestic and trade policies in order to increase their competitiveness and cushion the effects on their non-energy sectors.

19.   The challenge for the region's labor-abundant countries is to generate jobs through faster productivity growth in all sectors. How did China and India do this? In both countries, significant political and institutional shifts appear to have preceded and accompanied sustained, growth-oriented policy changes—shifts that MENA countries have barely begun. Institutional changes gave entrepreneurs the confidence to invest. In China embracing growth as a political goal was manifest in specific reforms to liberalize entry and in the way public officials were compensated. In India a pro-growth strategy became part of the electoral mandate of all parties. In both countries, institutional changes were accompanied by dramatic and broad reforms in trade, competition, finance, and governance. The specific reforms in MENA countries may not be the same as those in China and India, two very large countries. But those reforms should be comprehensive enough to demonstrate a commitment to a growth strategy.

How MENA's oil-producing countries can respond

20.   How should MENA's oil producers manage their higher revenues to minimize macroeconomic distortions and maximize long-run welfare? The benefits of the resource boom can be large, but will not follow automatically, for poorly handled resources can easily become a resource curse. These countries need to maintain macroeconomic stability and to design policies to guard against negative terms of trade shocks. They also need to share these gains widely across the economy—raising the competitiveness of other sectors and preventing de-industrialization.

21.   *Cooperating with China and India.* Because of China and India's dependence on oil and gas, the Middle East is in a unique position to develop mutually beneficial cooperation—not only in energy but in downstream activities and in other trade and investment areas, including services. MENA oil producers have to weigh the tradeoffs, including those between investing their oil wealth in downstream petroleum activities or in other activities removed from petroleum.

22.   *Embarking on grand schemes.* Leapfrogging to sophisticated manufacturing and knowledge enterprises may be a big gamble. Many investment banks have come to Dubai, but they will not stay without substantially more activity. Air traffic between Asia and Europe will be less likely to require the services of Middle East airports (with the advent of bigger jetliners with longer ranges). But in Dubai, where the economic diversification is already very advanced, the gamble may be worthwhile.

23.   *Investing in people and knowledge.* The long-term viability of a modern services economy depends on a sophisticated workforce that wants to live in the region. Sizable investments in universities can generate local human capital capable of driving these large and sophisticated

enterprises. But the agglomeration of talent and human capital in other cities and countries has taken place in social and political settings very different from those in Jeddah or Qatar.

24.   *Investing in the region.* Oil-producing countries have invested massively in the region, fostering regional integration. However, by investing their capital surpluses in non-tradable goods such as real estate and land, they have exported the Dutch disease effect of oil wealth. Given the need to create jobs in nonoil-producing countries, this will have to change. A great opportunity could be to invest in regional public goods, energy networks, infrastructures, and education. Oil-producing countries will face a new challenge to exercise the financial and economic leadership that could lead to a truly integrated region.

How MENA's nonoil-producing countries can respond

25.   *Exploit proximity.* For labor-abundant, nonoil-producing countries, China and India amplify existing competitive challenges and pose threats to their manufacturing and possibly services sectors. While it seems unlikely that MENA countries will ever specialize in manufacturing, they can focus on niche products where they enjoy strong comparative advantages. What is needed is a switch to new products and new markets, avoiding reliance on productions where Indian and Chinese firms have tremendous economies of scale. For example, a winning strategy in the garment sector depends on the ability to exploit the proximity to the European Union. Being closer to markets allows producers to keep inventory costs and risks low and specialize in time- and fashion-sensitive products.

26.   *Create a more equitable business environment.* While each country will have to choose its own menu of reform, the lesson from China and India is that growth accelerates when the overall climate for investment and innovation is favorable, ranging from the size of the domestic market to the entrepreneurial energy of a country's citizens, from the regulatory environment to the credibility of government promises. A recent World Bank report calls for a more equitable business environment, with rules and institutions that limit the room for discretion to sustain productivity and growth (World Bank, 2008c). Such a strategy is particularly important for MENA countries to withstand competition from China and India. Within this context, this report focuses on the importance of trade policies, including further tariff reforms to reduce the trade diversion from preferential agreements, to ensure that firms have access to competitively priced imports, and to improve trade logistics. To be effective, reduced protection must be accompanied by other structural reforms, including measures to improve the flexibility of labor markets, to ensure effective competition policy, and to support labor adjustments. To become more attractive to global FDI, countries need to reduce the complexity of their overlapping trade agreements. They also need to reduce the administrative costs of obtaining access to neighboring markets by removing licensing requirements and reducing the costs of complying with rules of origin. And they need to improve the backbone services critical for competitiveness.

27.   *Invest in competitive services.* Competing internationally, including with China and India, requires exploiting the region's major assets—the reputation of service providers and the skills and technical knowledge in sectors. Maintaining and improving the quality of services, rather than going for the lower end of the market, is likely to be beneficial. This will take further investment in education and training, better regulation of the professions, and higher domestic standards to meet international norms. Giving priority to sectors where cultural and geographical factors are essential to the delivery of service would also help. Opening could be unilateral—but it could also be traded for further access to foreign markets. All three levels of trade negotiation instruments (bilateral, multilateral, and regional) could be pursued in traditional markets, such as the EU. While multilateral negotiations would also benefit China and India, the request-offer process at the WTO is mostly bilateral. MENA countries thus have a strong interest in participating in the Doha round, so that their

requests for opening sectors of comparative advantage prevail over those by China and India. With regional trade agreements proliferating in the world and services and investment provisions becoming more sophisticated, MENA countries could revise the level of cooperation in services within the region and with major trading partners.

28.   *Negotiate with China and India.* Access to trade and service markets in India and China remains difficult. Reciprocal agreements to lower tariffs on imports of specific products should be pursued. Strengthening specific infrastructure to develop elements of deep integration with China and India (air links) could foster the integration into global value chains. Promoting learning about the two countries and their languages would also help. On services, there is a strong incentive to negotiate agreements with China and India to preserve market shares, to reinforce the security and predictability of services trade transactions, and to gain broader access to markets. A question remains, however. Is it in the interest of MENA countries to allow broader access to their markets by Chinese and Indian service providers? The answer depends on the type of commitments on both sides—and on careful analysis of the costs and benefits of bilateral opening.

CONCLUSIONS

29.   The future may well bring new opportunities and faster growth to MENA countries, but the challenges are great. For MENA oil-producing countries, faster growth in China and India will increase revenues from oil and the difficult choices associated with their management. For the labor-abundant, nonoil-producing countries, competition with China and India will spotlight the need for policy measures to increase productivity. This may require the broader institutional changes seen in China and India—and may thus take some time. But the horizon for creating much needed employment is shorter, suggesting the importance of a pragmatic reform agenda that can accelerate productivity, trade, and investment in the region.

CHAPTER 1.   TRADING WITH CHINA AND INDIA

The rapid economic integration of China and India in the world economy is changing trade and investment flows in important ways, presenting both challenges and opportunities for the rest of the world. China and India's trade with MENA is a small proportion of MENA's total trade. But it has grown very rapidly in recent years: if present growth rates are sustained, the likely future impacts may be substantial. This chapter describes the evolution of trade relations between MENA, China, and India. The main findings indicate that the region as a whole has benefited from improved terms of trade, significant increases in oil and gas exports, and cheaper imports. However, producers of industrial goods have been negatively—and in a few cases severely—affected by competition with the two Asian countries in both third and domestic markets.

CHINA, INDIA, AND MENA ARE INTENSIFYING THEIR TRADE RELATIONS

1.1   The rapid economic growth of China and India has received enormous attention. Winters and Yusuf (2007) compare growth rates since China's takeoff in 1979 with those of previous large industrializations in the UK and US and conclude that the latter rates were much lower than China's. The nearest parallel to China was the US over the period 1820–70, during which incomes in the US more than doubled in a single generation. At the current growth rates and life expectancies, incomes in China would rise manifold in a generation. Even though China and India are not the dominant force in the world economy, their industrialization has given an unprecedented shock to the world economy. Trade linkages with Asia, both direct and indirect, are transforming patterns of world trade. A key feature of the economic growth of China and India has been even more rapid growth in their trade—arguably the strongest and most direct channel through which China's, and more recently India's growth are affecting other developing countries.

1.2   Only fifteen years ago, China and India jointly produced less than 3 percent of world GDP, just above MENA's share (table 1.1). By 2005–07 they produced 7 percent of world GDP, nearly triple MENA's 2.5 percent. The MENA region as a whole has a population of 310 million, less than 5 percent of world total. It has vast desert areas and scarce water resources, and enormous oil and gas resources, phosphate rock, cobalt, and manganese. Because of these resources, MENA's GDP per capita (in PPP) has been high, and is higher than both India's and China's. During the last five years, the region has enjoyed strong economic growth, driven by high oil prices, greater integration in the region and with the rest of the world, and acceleration in market-oriented reforms. The rise in oil prices from $25 in 2002 to almost $140 in mid-2008 bestowed unprecedented windfall for the oil exporters. And the spillovers from resource rich to resource poor countries have been strong, with rising trade flows, worker remittances, tourism, and intraregional investment, particularly from Saudi Arabia and the United Arab Emirates.

MENA countries are heterogeneous but share the challenge of creating employment

1.3   The MENA region is heterogeneous, comprising 19 nations with different socioeconomic and political characteristics. Yet, the similarities are many. Now, as in the past, oil is providing the basis for economic growth, either directly in oil-producing countries or indirectly in the rest of the region through investment and services, aid and remittances. Most countries in the region adopted the same state-led economic development policies in the 1950s and 1960s, and all have been affected, though at different levels, by conflict and regional instability. Most importantly, as a result of past demographic trends, they all face the dramatic challenge of providing employment for a labor force that is growing at four percent a year, the highest in the world. Unemployment is high, 12–13 percent of the labor force, despite recent declines, and falls disproportionately on the region's youth. While each country is different and would deserve to be analyzed on its own, information availability is an issue. Thus, the bulk of the analysis in

this report will focus on the entire region, when appropriate, and on two sub-groups: the six resource-rich Gulf Cooperation Countries (GCC) and the remaining countries, which are labeled as 'labor-abundant countries.'[1] The remainder of this section presents information on merchandise trade, with special attention to changes in trade patterns over the last ten years.

Table 1.1: Selected economic indicators

	MENA		China		India	
	1990-91	2005-07	1990-91	2005-07	1990-91	2005-07
Population, in millions	231.1	310.4	1150.3	1313	866.3	1109
Population, in % of world	4.3	4.8	21.6	20	16.2	17
GDP at current market price, in US$ bn	510.6	1,532	383.1	2461	276	802.6
GDP real growth, in %	3.6	5.4	8.2	11.2	4.6	9.1
GDP, in % of world*	2.2	2.5	1.7	5.1	1.2	1.8
GDP per capita (PPP)	5,424	7,639	1,146	4,971	1,197	2,532
Trade in % of GDP	70.3	92.0	38.8	70.3	17.2	43.5
Exports in % of GDP	33.5	54.1	20.9	38.5	8.3	20.0
Share in world exports, in %*	3.8	4.5	1.5	5.8	0.5	1.1
Manufactured exports, in % of total*	12.2	9.3	82	83.2	56.2	43.2

Source: WDI; 2008 MENA Economic Developments and Prospects
*Refers to averages for 2005-06

China and India are becoming strong trading partners for MENA

1.4 MENA's share of world exports, 4.5 percent in 2005–06, is significantly higher than India's and only slightly below China's, reflecting the predominance of energy exports, which represent half of total exports. Manufacturing, typically the most labor-intensive sector, is small in MENA and one of the lowest in the world. Thus, MENA's share of manufactured products in total exports is 9 percent, China's is 83 percent, and India's about 43 percent. Moreover, as shown in table 1.1, this share has decreased from the early 1990s. The region's weak performance in

Figure 1.1: MENA's exports growth by destination (%)
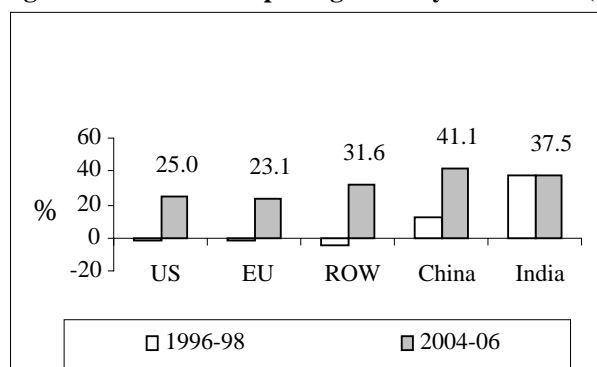
Source: IMF, Direction of Trade 2007

manufactured exports reflects the weaknesses of the private sector and its inability to support economic growth in a sustained manner.[2]

1.5 MENA's exports have been highly concentrated not just in terms of products but also in terms of markets. The traditional partners for MENA continue to be the EU and the US but there has been a move toward Asian markets. Total merchandise exports to China and India accounted for more than 15.5 percent of total MENA exports in 2006, up from 4.7 percent in 1995. These exports are growing at an impressive speed, rising 41 percent to China in 2004–06 and 37 percent to India, almost twice the growth of exports to the US and EU (figure 1.1).

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[1] GCC = UAE, Saudi Arabia, Bahrain, Kuwait, Oman, and Qatar. Labor-abundant countries = Algeria, Djibouti, Egypt, Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia, West Bank and Gaza, and Yemen. However, for lack of data and information, some countries, such as Iraq, Iran, West Bank and Gaza, and Libya, are not included in some of the tables and analysis.
[2] See World Bank (2008c).

2

1.6   Strong growth between MENA, China and India, together with the complementary nature of trade flows, largely explains the surging exports and imports in recent years. For example, MENA's merchandise real exports to China and India have increased by six and three times respectively during 1995–2005 (figure 1.2). MENA countries are indeed looking East.

Figure 1.2: MENA's merchandise trade with India and China is increasing fast
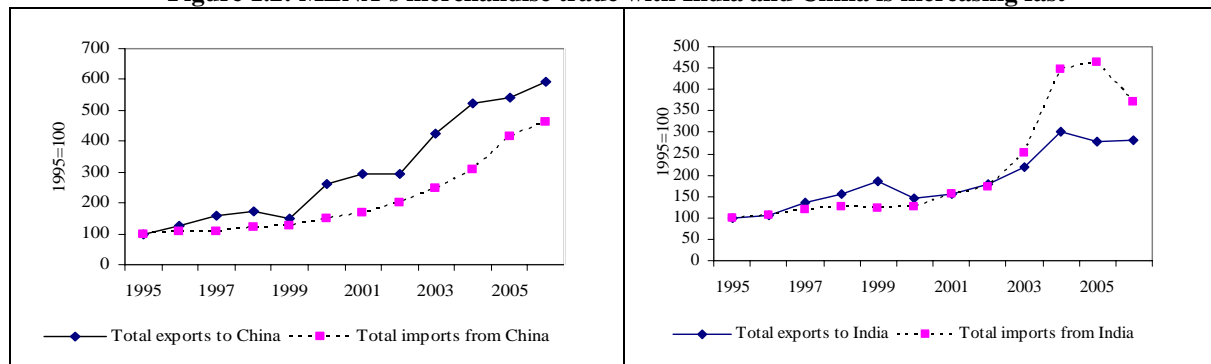
Note: The increase in MENA's imports from India in 2004 and 2005 are mainly due to the rapid increase in the UAE's imports from India.
Source: UN Comtrade.

India is the predominant trade partner for MENA

1.7   Trade links with India have always been more important, but China's importance is growing rapidly, particularly for Iran, Oman, and Yemen. For the labor-abundant countries the share of exports to China and India account for 1–4 percent of all exports. Imports from China represent 7–10 percent of total imports. Except for Djibouti, imports from India represent only 1–4 percent of total imports for most MENA countries.

Dubai and Abu Dhabi are becoming re-exporting centers

1.8   There is one important characteristic that differentiates trade with China and India between the GCC and the labor-abundant countries. The share of products that are imported and re-exported is extremely high in some GCC countries, representing, for example, 85 percent of manufactured exports in the Emirates and 56 percent in Qatar (table A1.8 in Annex I). These are goods that originate in third countries, but are routed through GCC ports, particularly Dubai. This confirms the increasingly important role of "regional hubs" for cities like Dubai or Abu Dhabi. By contrast, re-exports are insignificant in the labor-abundant countries. Three-quarters of total re-exports in the GCC countries concern machinery and transport equipment.

Energy is key

1.9   Historically, Chinese oil imports from the Middle East (mainly Persia) can be traced back over a millennium, to the Tang and Song dynasties. However, imports increased significantly only in the late 1980s as China's growth picked up. They initially came from Oman and Yemen because of the low-sulfur content of the crude oil streams, which could be refined in China. Chinese refining facilities improved significantly in the 1990s and China is now able to process high sulfur content crude oil from Iran and Saudi Arabia.

1.10   MENA holds more than 60 percent of the world's proven oil reserves and nearly half of gas reserves; and 40 percent and 17 percent of the global production of oil and gas respectively. China and India are poor in energy resources and therefore their growing economies depend critically on the

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availability of energy imports. Consumption rates of oil and gas in the two Asian countries are expected to continue growing at more than twice the global average, despite increased efficiency use. This is on account of fast urbanization and industrialization rates, which are reflected, for example, in rising ownership rates of vehicles. More than half of China and India's energy imports come from MENA (up from a third ten years ago). Assuring adequate oil and gas supplies is therefore a top priority for the Asian countries. On the other hand, the abundance of energy reserves in MENA, which are mostly located in the Gulf region, as well as their proximity to Asia, has made the development of a strategic relationship mutually beneficial. Both China and India have pursued, in recent years, an aggressive energy market diversification strategy, moving into countries with easier access to equity (for example, in Africa) or in countries that have just discovered new fields in Latin America or the Caspian region. Access to oil and gas equity has traditionally been either closed or very limited in MENA countries, and Asian companies have therefore focused on developing the downstream industry (see chapter 4).

1.11   In January 2006, Saudi King Abdullah bin Abdul-Aziz al Saud visited China and India—the first foreign trip since assuming power in August 2005—marking the beginning of a strategic shift in Saudi's foreign policy. At the conclusion of that visit a new partnership was created, where Saudi Arabia agreed to open up its upstream oil sector to China and China agreed to open up its refining and marketing sectors to the Saudis. Following Saudi Arabia's example, individually or as groups, the GCC countries have embarked on the development of economic and cooperation agreements with the Asian countries. In many cases these agreements have included the timely investments to increase oil and gas production capacity to meet the rising demand from Asia. Trade and investment relations in other sectors are being fostered as natural, complementary extensions to energy relations.

1.12   The impact of China's and India's growing demand for oil and gas on the global demand for these commodities has been sustained (table 1.2). China contributed 45 percent and 11 percent to the increase in global demand for oil and gas in 2005–07, up from 26 percent and 3 percent respectively in 2000–03. India's contribution to the increase in global demand for oil and gas was less than 15 and 5 percent respectively in 2005–07. Thus, China and India's energy demand growth has contributed to the rise in energy prices in recent years, through there have been other factors. In turn, the surge in energy prices has greatly benefited the MENA region, generating rents for companies in the extractive industries and for resource-rich countries and—most likely—contributing to a long-term change in international energy prices.

Table 1.2: China and India have contributed significantly to the rise in global energy demand

Export commodity	International price change		China effect		India effect	
	2000-03	2005-07	2000-03	2005-07	2000-03	2005-07
Oil	19.8	31.8	26.5	44.7	7.4	14.8
Gas	30.9	18.2	3.1	11.4	2.2	4.6

Note: Oil price data refer to US refiner acquisition, the cost of imported crude oil. Gas price data refer to the price of US natural gas imports, in US$ per thousand cubic feet. Gas consumption data refer to the latest available 2006 projections.
Source: Energy Information Administration, US government.

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1.13 Higher prices of oil and gas have significantly improved the region's terms of trade (figure 1.3). MENA's export prices to China and India almost doubled in 2000–06, spurred by the rise in oil prices for fuel commodities, while import prices rose by 25–30 percent. Region wide averages hide country differences and resource-poor countries have suffered because of the high oil import bill. The macroeconomic consequences of a rise in the price of oil are well-known. An increase in the price of natural resources raises Dutch disease concerns, that is, the possibility that the expansion of the natural resource sector will de-industrialize the economy—by attracting resources away from the non-oil sectors and raising the prices of non-tradables

Figure 1.3: MENA's rising terms of trade with China and India, (2000 = 100)
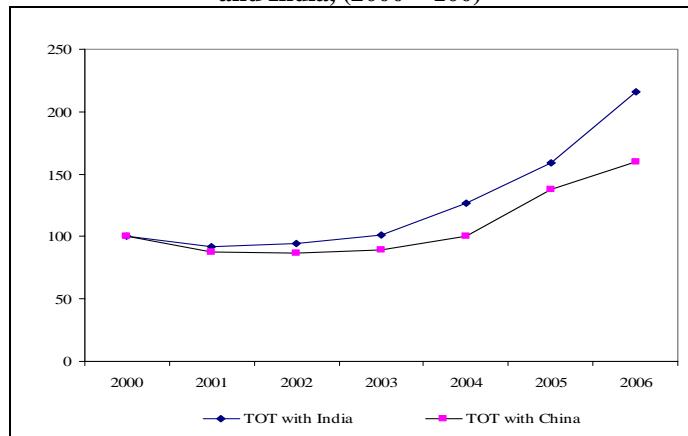
Source: UN Comtrade, World Bank, and US Department of Labor.

in the economy (thus further lowering the competitiveness of tradables). Typically however, governments try to raise competitiveness, through measures such as technological improvement. This may have indeed happened in many resource-rich countries. Oil-importing countries that are also exporters of manufacturers are likely to have suffered from the added costs of oil imports and the competition of China and India in both export markets and domestic import markets, as discussed in the next section.

1.14   MENA's non-oil exports to China and India are small. In 2006 oil and gas accounted for 85 percent of MENA's merchandise exports to China and 82 percent to India (figure 1.4). (Table A1.5 in Annex I shows the evolution of imports and exports to China and India in the last 10 years). Non-oil exports to China include manufactures, chemicals, and crude products. Exports to India have become more diversified, with manufactured goods and machinery-related exports increasing. MENA's imports from China are mostly manufactures and machinery. Those from India include rice, tea, fresh vegetables, chemicals, textile, garments, telecommunication equipment, and toys.

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Figure 1.4: MENA's composition of trade with China and India, 2006
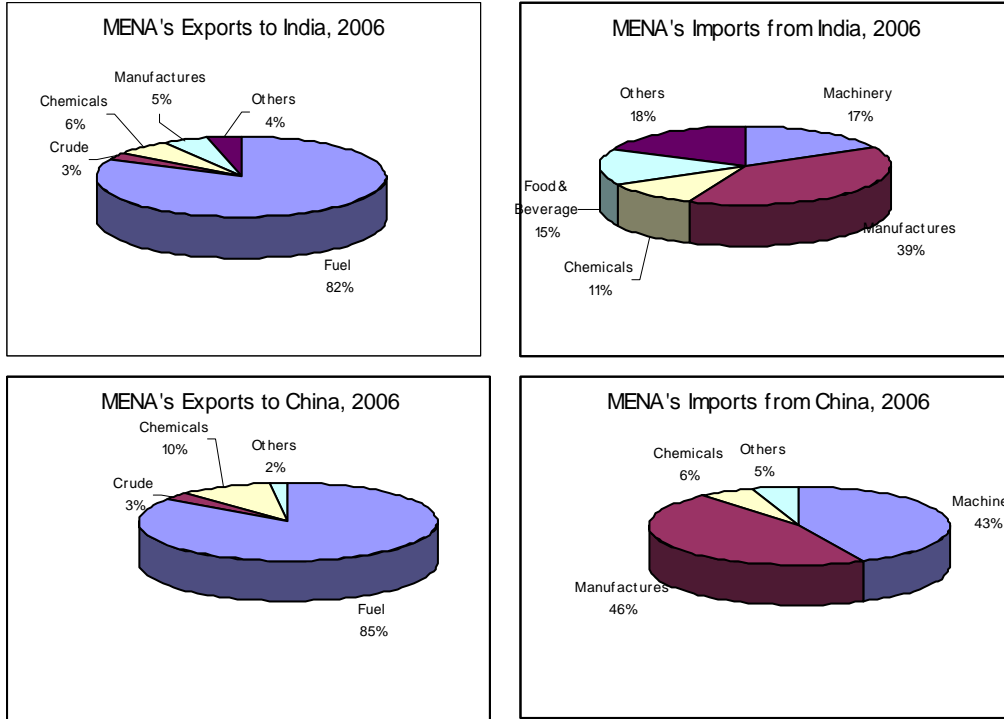
Source: UN Comtrade.

The impacts of China and India on MENA trade

1.15   The acceleration of trade relations with China and India has spurred debate in the Middle East. The 2007 Pew Global Attitudes Survey found that China's image has slipped significantly among the public in Europe, Japan, Russia, and India. But in Egypt some 65 percent of the people express favorable views. China's economic power is also viewed positively by Jordan, Kuwait, and Lebanon. But perceptions are decisively negative in Morocco, which fears the competition. Anecdotal evidence point to rising perceptions of unfair competition from the Asian countries (particularly in the Maghreb countries), leading to losses in foreign markets, lower wages, and unemployment. The aim of the remaining sections of this chapter is to assess how export growth in China and India has affected MENA countries and how these countries have adjusted to the growing competition. We discuss three main ways in which the growth of China and India may affect the trade flows of MENA countries: greater competition in third markets, greater competition in MENA domestic markets, and greater exports to China and India (box 1.1).

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Box 1.1: Impact of China's and India's growth on trade flows: A review of the literature

Greater competition in third markets

Many countries fear more competition in third markets from China and India (Freund and Ozden 2006; Hanson and Robertson 2006). Lederman, Olarreaga, and Perry (2006) found this to be so in industrial and electrical machinery, electronics, furniture, textiles, and transport equipment in Mexico and in Central American countries. How large can this effect be? The answer depends on how exports overlap. Traditional trade models suggest that labor-abundant countries like China and India will manufacture and export labor-intensive goods, so developed economies have little reason to be concerned but other labor-abundant developing economies may be threatened. But China produces an export bundle very similar to that of the developed countries (Schott 2007). India's large number of skilled workers also implies that there may be a lot more competition than suggested by its relative endowment shares.

China has relied primarily on exports of final manufactured products, frequently as part of an East Asian production sharing network, while India has focused much more on exports of intermediate inputs (Dimaranan, Ianchovichina, and Martin in Winters and Yusuf 2007). India's exports are frequently capital and skill intensive, China's labor intensive, if increasingly sophisticated (Rodrik 2006). China's rank in the similarity of its export bundle with the OECD jumped from 19 in 1972 to 4 in 2001. China's export growth has been accompanied by tremendous expansion in product variety. China was in 9 percent of all manufacturing product categories in 1972, and 70 percent in 2001 (Schott 2007). An important concern for MENA and other countries will be how China and India move up-market into their "product space." Dimaranan, Ianchovichina, and Martin (in Winters and Yusuf 2007) find that adjustment pressures in particular sectors are likely to be much greater if growth is driven by technical change biased toward particular sectors than if by broad-based and relatively neutral technical change.

Greater competition in domestic markets

China and India's trading partners can benefit economically from imports of lower priced and higher quality goods. Amiti and Freund (2007) find that the prices of China's exports to the US fell by 1.6 percent a year between 1997 and 2005. Devlin, Estevadeordal, and Rodríguez-Clare (2006) show how imports of high-technology goods have partly displaced low-tech goods in manufactured exports. This upgrading reflects imports of more sophisticated products and local improvements in product quality (Branstetter and Lardy 2006). China and India's trade growth involves fragmentation and global production sharing, where part of the production process is undertaken in one economy and subsequent stages in another (Ando and Kimura 2003; Gaulier, Lemoine, and Unal-Kesenci 2004). This makes participants in the process beneficiaries from, rather than victims of, improvements in the competitiveness of their partners. And the new trade theory now recognizes that export expansion does not involve just increases in exports of the same products. Rapidly growing economies expand the range of products, improve the quality, and export to additional markets as their exports grow (Evenett and Venables 2002; Hummels and Klenow 2005). These developments generate direct benefits to the trading partners of the emerging economies. If policy settings allow imported inputs in partner countries, improvements in the variety and quality of imported inputs can be a source of dynamism in manufacturing (Amiti and Konings 2007).

Greater exports to China and India

China has become an important destination for exports of other countries' primary products. In metals and coal China ranks first, with shares of 15 to 33 percent of world consumption. In energy China ranks second or third after the US (Streifel 2006). India and China are important consumers of agricultural commodities, with India leading the world sugar and tea, and China in wheat, rice, palm oil, cotton, and rubber. The International Energy Agency 2007 outlook forecasts that energy use will be 55 percent higher in 2030. Oil will continue its leading role for many years, despite alternative sources of energy and improvements in energy efficiency. Most scenarios would predict an oil demand growth of at least 1.5 percent a year through 2030. In all scenarios China and India will account for more than half of the total increment in demand. MENA oil-exporting countries are expected to satisfy an increasing share of this demand.

Box 1.2: World Bank studies on Latin America and Africa

A recent study concerning the impact of China and India on Latin America and Caribbean (LAC) region (Lederman, Olarreaga, and Perry 2006) reached interesting findings. The analysis of the data finds that the growth of China and India has not been a zero-sum game for LAC countries, and that there is significant heterogeneity in effects across LAC sub-regions. First, the growth of the two Asian economies, particularly China, offers a growing opportunity for LAC exporters to these markets, although it has not yet been fully exploited. China and India also represent a growing source of financing. As China liberalizes its financial sector, the potential for becoming an important source of financing for LAC economies is great. In terms of innovation, the scope for bilateral cooperation is large and exemplified by the Chinese-Brazilian agreements on satellite development which have led to the joint production of remote sensor satellites used for space imaging. China provided 70 percent and Brazil 30 percent of the financing and technology. Bilateral agreements also exist between China and Chile in the areas of mining and geosciences, plant quarantine, and forestry (Dominguez and others 2006).

Moreover, there is evidence of positive overall effects for LAC economies associated with the larger presence of China and India in third markets. For example, there appears to be a correlation between the growth of the two Asian economies and LAC economies (with the exception of Central America and the Caribbean), driven mainly by demand externalities and higher prices for commodities where LAC's comparative advantage lies. The growing presence of intraindustry trade, production networks, and the production opportunities facilitated by cheaper imports, lower cost of capital, and innovation are some additional channels through which trade, FDI, and innovation externalities may have positively affected LAC economies.

Lederman, Olarreaga, and Perry (2006) also report that aggregate gains have been accompanied by some pain as some industries, firms, and sub-regions have been negatively affected by the rapid growth of the two Asian economies. However, most of the deterioration of LAC exports in third markets has to do more with domestic supply-side conditions than with lower demand for LAC products due to China and India's increase in market shares. In terms of FDI, there is also some weak evidence of inflows of FDI into LAC's manufacturing sector being substituted for FDI in China and India's manufacturing sector, particularly Central America and the Southern Cone. But these effects are not statistically robust and complementarities are the norm even in manufacturing.

In the service sector India has outperformed Latin America in terms of export growth over the last decade. However, LAC's exports of services to the United States (its main export market) are seven times larger than China and India's exports to the United States. This partly reflects one large advantage of LAC over China and India for the delivery of services to American consumers: proximity. This is particularly important in the tourism sub-sector, where LAC has been performing relatively well when compared to the rest of the world, but also in health and retirement services. In terms of displacement of LAC service exporters by India, only one of the eight service sub-sectors examined (other business, professional, and technical services) offers robust evidence of India's export of services displacing LAC exports. For other sub-sectors the impact of India's growth on LAC exports of services is not robust across specifications

The opportunities and challenges posed by China and India for Africa were studied in a recent World Bank report by Broadman (2007). Specifically, the volume of African exports to Asia is growing at an accelerated rate: while exports from Africa to Asia grew annually by 15 percent between 1990 and 1995, they have grown by 20 percent during the last five years (2000–05). Indeed, Asia is now a major trading partner of African countries. Asia accounts for 27 percent of Africa's exports, an amount that is almost equivalent to the EU and US share of Africa's exports, 32 percent and 29 percent, respectively. As Broadman (2007) reports, the recent growth of African exports to Asia largely reflects an upturn in its exports to China and India. Ten percent of Sub-Saharan exports are now to China and some 3 percent are to India. China has overtaken Japan as the leading importer of African products in Asia. The growth in African exports to China and India in the last few years is largely driven by unmet domestic demand for natural resources, reflecting growing industries as well as increasing consumption by households.

Broadman's (2007) study also reports that Asian exports to Africa are increasing. Over the last five years, they have grown at an 18 percent annual rate, higher than that of any other region, including the EU. Asia's exports to Africa are reported to be largely manufactured goods. Some goods are intermediate inputs for products assembled in Africa and shipped out to third markets, such as the EU and United States and others are capital goods (machinery and equipment) for African manufacturing sectors themselves. At the same time, the study reports significant imports of consumer non-durables from Asia (which compete against Africa's domestic products).

Finally, Broadman (2007) reports that while African-Asian FDI flows are growing rapidly, the volume of such flows is modest compared to trade. While there is some African FDI in China and India, this investment is "dominated by the flows of Chinese and Indian FDI in Africa. As of mid-2006, the stock of China's FDI to Africa is estimated to be $1.18 billion. The vast majority of Chinese and Indian FDI inflows to Africa over the past decade have been largely concentrated in the extractive industries. Because such investments are typically capital intensive, they have engendered limited domestic employment creation. However, in the last few years, Chinese and Indian FDI in Africa has begun to diversify into many other sectors, including apparel, agro-processing, power generation, road construction, tourism, and telecommunications, among others. Chinese and Indian FDI in Africa has also become more diversified geographically."

Using statistical analysis at the country level, Broadman (2007) finds that "in both Africa and Asia, there are strong complementary relationships between FDI and trade; in particular, a greater inward stock of FDI is associated with higher exports. For the African countries taken together as a group, these country-level complementarities are more muted than they are for the Asian countries. However, among nonoil-exporting African countries, the complementary effects are actually larger than they are for the Asian countries. Similar results are obtained from a comparison of FDI per GDP and exports per GDP among African countries."

Overall, Broadman's (2007) analysis suggests that China and India's growth has provided significant opportunities for Africa, but notes that heterogeneity of country characteristics within Africa implies that the challenges and opportunities offered by India and China might vary equally and substantially within Africa.

ARE EXPORTS FROM CHINA AND INDIA DISPLACING MENA EXPORTS IN THIRD MARKETS?

1.16 The MENA region increased its share in world trade by 1 percentage point between 2000 and 2005, less than China but more than India. At a first glance there is thus no indication for MENA countries to worry about a growing presence of the Asian countries in third markets. A closer look, however, reveals considerable heterogeneity in the outcomes of the oil-rich GCC countries and of labor-abundant MENA countries. Only the GCC countries gained market shares, mostly because of higher energy exports. By contrast, the labor-

Figure 1.5: Shares in world trade of goods and services (percent)
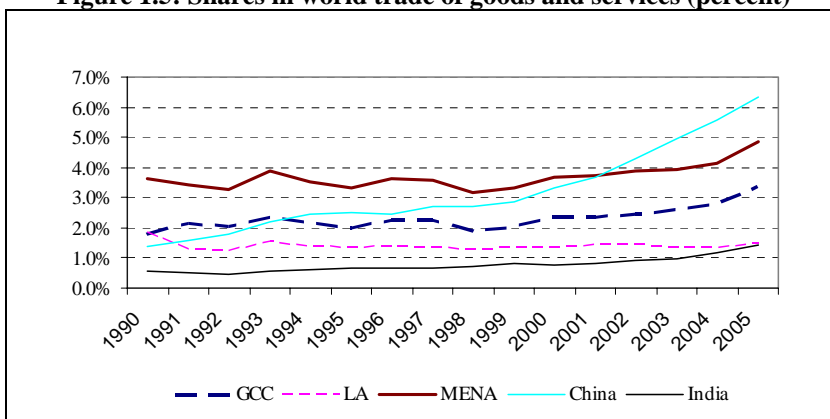
Source: World Bank, World Development Indicators and staff calculations based on index $= \left(X_{mena} + M_{mena} \right) / \left(X_W + M_W \right)$.

abundant countries lost shares (see chapter 2). The bulk of China and India's exports are manufactured products, which compete with exports from the Maghreb. So, have MENA's non-oil exports been displaced in third markets as a result of China's and India's growing presence?

Chinese and Indian exports have displaced some of MENA's non-oil exports

1.17 The question is investigated econometrically,[3] using a regression specification that explains the export growth of MENA countries in world markets in terms of either China's or India's exports as well as import growth to the same markets. Only non-fuel products are included in the analysis and we distinguish between industrial products (steel, textile, apparels, electronics) and nonindustrial products (agricultural products, minerals, raw materials). The exercise is essentially a test of whether China and India are affecting MENA's exports to a greater extent than exports than other countries, controlling for the overall exporter supply growth. Table A1.6 in Annex I reports the results from the regression analysis.

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[3] We follow Freund and Ozden (2006) and estimate the following regression equation:

$$dexports_{ijkt} = \alpha_{it} + \beta_0 dimports_{jkt} + \beta_1 dchina_{jkt} + \beta_2 dindia_{jikj} + \varepsilon_{ijkt}$$

where $dchina_{jkt}$ is growth of China (India) in country j in sector k. The advantage of this specification is that we are exploiting both cross-section and time series variation to estimate how MENA countries are affected by China and India. The growth of China's (India's) exports is weighted by the country's lagged market share in that sector and market. The intuition is that China's (India's) export growth will matter only if the country is a significant supplier. If China and India have roughly the same effect on all exporting countries, the coefficient yielded from the regression on imports will be close to one and the coefficient on China and India will be zero. A negative coefficient on China or India indicates that Chinese or Indian export growth is correlated with a decline in MENA export growth in a given industry. We estimate this equation using data from 1985 to 2005 with the 4 digit classification excluding fuels but keeping other crude materials. The reason for excluding fuels is that we want to focus on how non-oil exports of both GGC countries and labor-abundant countries are affected.

The coefficient for MENA countries is lower than one (around 0.4), confirming that export growth has been slower than that of the world without China and India. The negative coefficients on China and India exports suggest that on average MENA's export growth is low when Chinese and Indian exports are large and growing. The results also suggest that Chinese exports are displacing MENA exports more than Indian exports are. Industrial products such as textile and apparels are more affected by China's export growth than are nonindustrial products like crude materials, particularly in 2000–05 (figure 1.6). India's market presence affects MENA's exports of crude material but not of agricultural products. India also affects MENA's manufacturing exports, but less than China does, and only in the unskilled labor-intensive and high technology-intensive industries. Medium technology-intensive exports are little affected.

The China effect is much stronger than the India effect

1.18   China had a displacing effect throughout the period of analysis, 1985–2005, for both the GCC and the labor-abundant countries. India became a strong competitor only after 1995. And in the last five years competition from India has been declining but becoming fiercer from China. China's export growth has hurt MENA's exports since the early 1980s, but the effect became stronger in the 1990s. The China effect appears to be solely responsible for the negative impact on MENA's export growth in nonindustrial products because India's effect diminished over the time.

Labor-abundant countries were better able to withstand competition than GCC countries overall

1.19   Exports from labor-abundant MENA countries may have been hurt less than those from GCC countries, likely because they have a stronger comparative advantage in products competing with China and India. Moreover, a number of MENA countries enjoyed preferential market access to their major markets, the EU, and the US. By contrast, exports from GCC countries that competed with China and India appear to have been deeply affected, with some vanishing. However, given the limited and declining importance of the industrial sector in the GCC economies relative to the oil sector, the overall impact on employment and welfare may have been relatively small.

Figure 1.6: Displacing MENA exports
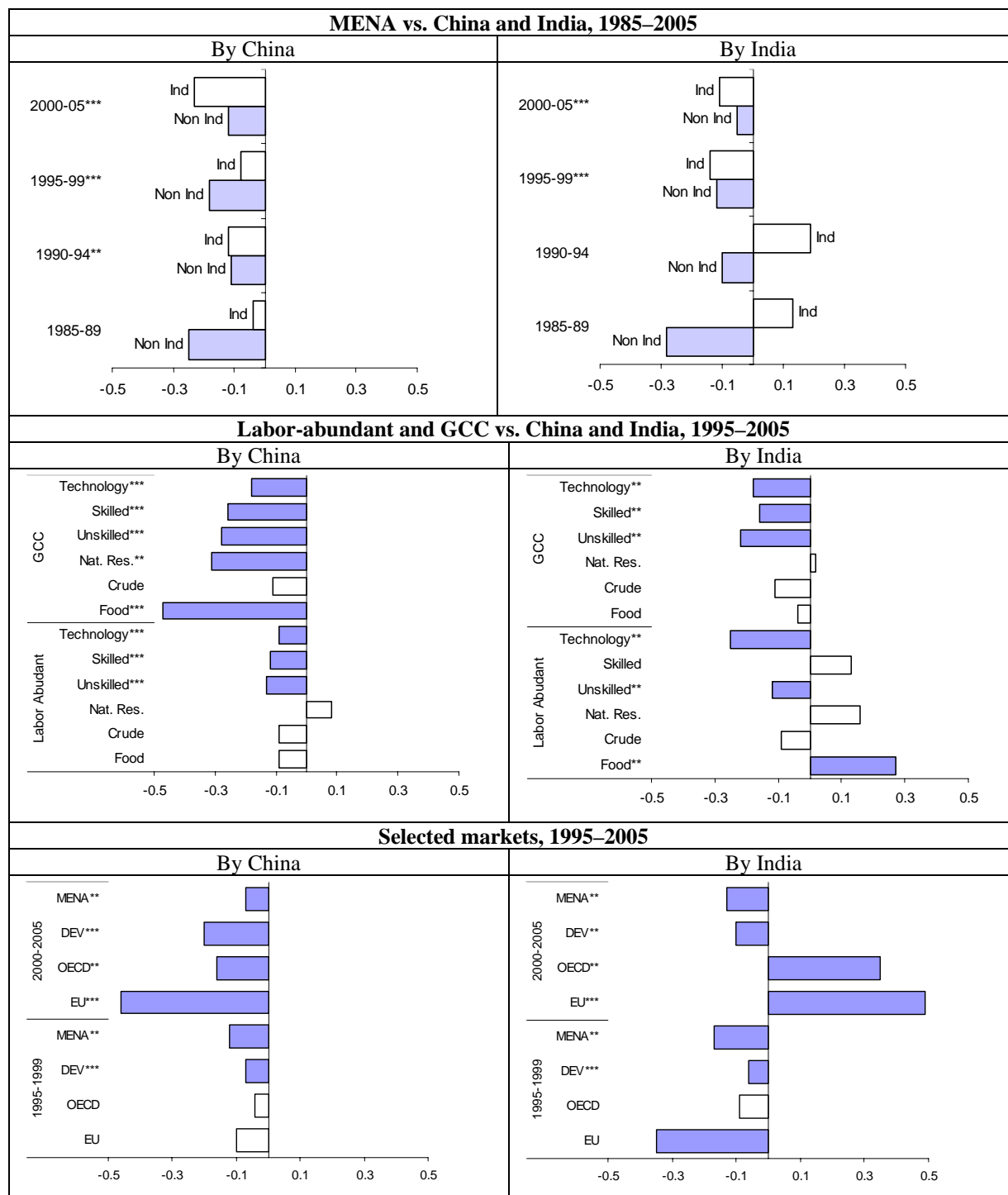
Note:

a. On the horizontal axis, the figures show the regression coefficient. If the coefficient is negative, MENA export growth is low when Chinese/Indian export growth is large and growing. A coefficient of -0.5 implies that for a product with a Chinese/Indian market share of 10 percent and Chinese/Indian export growth of 20 percent, the export growth in MENA would be reduced by (0.5*0.1*20) = 1 percentage point.

b. (Ind: Industrial; Non Ind: Non Industrial; DEV: Developing countries, Skilled: Skilled labor intensive; Unskilled: Unskilled labor intensive; Nat. Res.: Natural Resources intensive; Crude: Crude materials; Food: Food products)

*Significant at 10 percent; ** Significant at 5 percent; *** Significant at 1 percent.

*Source: S*taff calculations based on UN Comtrade.

11

MENA is retreating from competition with China and India

1.20   The emergence of China and India has altered in significant ways production location decisions in the international economy. Technological progress in these economics combined with the large availability of low wage labor has made them an attractive location in which to undertake production. This raises important questions for MENA countries concerning the pattern of specialization and trade in these economies. Did MENA countries shift their trade specialization because of competition from China and India? The answer to this question is important. Changes in specialization patterns will indicate how policies may accommodate or leverage these changes with policy instruments, such as education, technical training, innovation policies, and perhaps trade-adjustment assistance programs for workers.

1.21   To compare how China and India's growing presence in world markets may be affecting the specialization pattern of MENA economies, we follow closely the analysis of Lederman, Olarreaga, and Rubiano (2006) and proceed as follows. We construct an index of revealed comparative advantage (RCA) at the global level that accounts for exports, but also imports, as well as the relative size of world markets to capture the overall competitiveness of each country by sector. The RCAs are normalized by country/year mean to allow comparisons (Vollrath 2001). A positive RCA index indicates that a country's net export share of a particular product within its export portfolio is larger than the global share of the same product in world exports. In other words, if a country has a positive RCA index for a specific product, it exports more of the product relative to other countries on average but also relative to its own export portfolio.

1.22   The analysis is conducted at the sectoral level for both GCC and labor-abundant countries (contrary to the analysis in the previous section), fuel exports are included. The distinction between oil (and more generally the natural resource) sector and other sector is clearly made, country by country. A comparison of RCA measures for MENA with those for China and India will permit inferences concerning the (dis-) similarity of comparative advantage patterns across these countries at a given point in time. The correlation between MENA's RCA on the one hand, and Chinese and Indian RCAs on the other hand will provide an idea of the extent to which MENA is competing in the same markets as China and India, as well as whether Chinese and Indian markets represent opportunities for MENA exports.

1.23   The evolution of the correlation between Chinese and Indian RCAs for the labor-abundant countries between 1995–2005 is

Figure 1.7: Correlation of MENA's RCA indexes with China's and India's
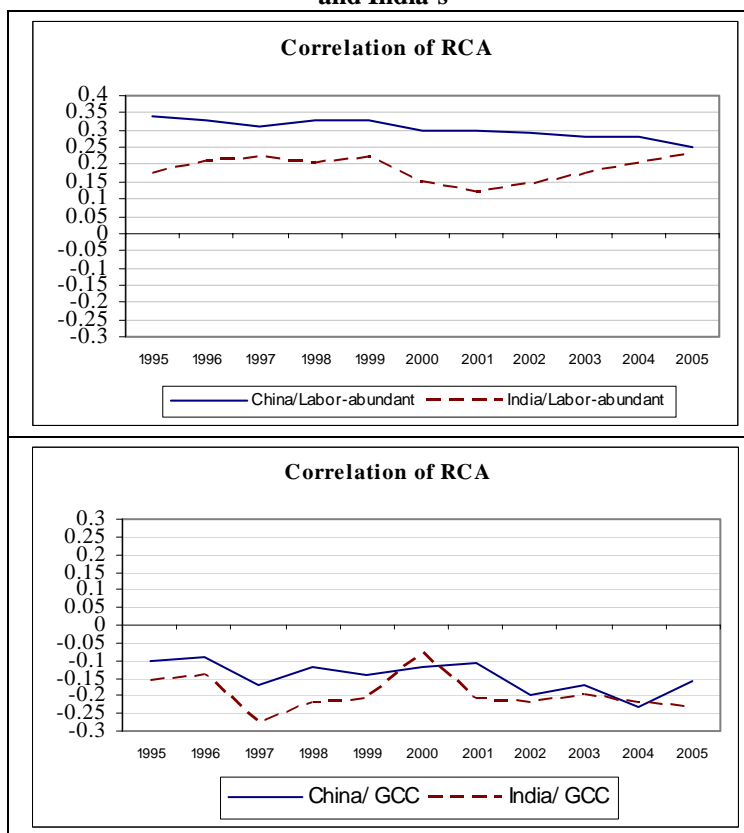
Source: UN Comtrade, Revision 2, 3 digits

shown in figure 1.7. Labor-abundant countries have a stronger specialization pattern with China, but the correlation has decreased, especially in recent years. Interestingly, the correlation with India's RCAs has increased, suggesting that India is specializing, to a modest extent, in the same products of the labor-

abundant countries. By contrast, there has traditionally been negative correlation between exports of China and India with the exports of Gulf countries indicating a strong complementarity. If anything, this trend has intensified in recent years, probably due to the disappearance of exports similar to those from China and India as discussed in the previous section.

1.24   Following Lederman, Olarreaga, and Rubiano (2006), we then analyze whether labor-abundant and GCC countries' specialization patterns with China and India exhibit substitutability or complementarity (table A1.7 in Annex I). In the case of China, there is some substitutability—and therefore competition—for skilled-labor and technology-intensive products in both labor-abundant and GCC countries. In the case of India there appears to be substitutability in both skilled- and unskilled-labor products, suggesting that together, the two Asian countries are putting pressure on both skilled and unskilled labor. Strong complementarities are observed only in the case of primary goods.[4]

THE GROWING PRESENCE OF CHINA AND INDIA IN MENA MARKETS

1.25   MENA countries have partially opened their markets to products from China and India. And in some countries these products have gained popularity and increased the perception that they have taken over markets previously dominated by local suppliers. Domestic competition with China and India was highlighted as one of the major challenges of trade integration during a regional conference in Tunisia in 2007. Fears that local producers and industries might be hurt are rising. But how serious is the threat? In absence of firm-level data and industry data beyond 2004, we rely on international trade data to have an insight on import-competing sectors. The results should therefore be treated with caution as they are merely suggestive rather than conclusive.

Labor-intensive industries are most exposed to competition

1.26   Comparing MENA imports from China and India that exhibit a higher than average import growth with the same products exported by MENA helps identify industries potentially in competition with China and India on the domestic market (table 1.3).[5] For example, both the GCC and the labor-abundant countries specialize in food products (24 and 15 products show positive RCAs). However, food imports from the Asian countries have grown at a rate that is higher than average in 20 products of the labor-abundant countries and 11 of the GCC. Thus, it is likely that the food sector is under strong competition from China and India. More generally:

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[4] The empirical methodology is straightforward. We explain the RCAs of MENA with the RCAs of China and India, as well as the bilateral exports of each MENA economy with China and India, controlling for country-year effects. This empirical model can be written as:

$$RCA_{c \in MENA,s,t} = \beta_0 + \beta_{c \in MENA,t} + \alpha_1 RCA_{China,s,t} + \alpha_2 RCA_{India,s,t} + \alpha_3 XN_{China,s,t} + \alpha_4 XN_{India,s,t} + \varepsilon_{c \in MENA,s,t}$$

where is the RCA of country c (belonging to our 15 MENA countries) in sector s, at time t, XN are net bilateral exports of each MENA economy to either China or India depending on the variable, and ε is an error term where we allow for clustering of the error term within each industry every year. We estimated these models for the pooled sample of 15 MENA countries, but also for the 2 country groups (labor-abundant and GCC). All estimations include country effect and year effects. We estimate this equation using data from 1985 to 2005 on the 3 digit classification. The advantage of this specification is that we are exploiting both cross-section and time-series variation in order to estimate how MENA specialization is affected by China and India. A positive coefficient on the RCA of China or India would indicate that MENA's specialization pattern is similar to the one observed in China and India, whereas a negative coefficient would indicate that the specialization pattern of MENA is complementary to the specialization pattern of China and India. A positive coefficient on the bilateral net export variable would indicate that exports to China or India are concentrated in sectors where MENA's comparative advantage lies, and that at least through this direct channel the growth of China and India is shaping the specialization of MENA economies.

[5] Notice that here the implicit assumption is that the exported products are or could be sold domestically. Tables A1.11 and A1.12 in Annex I show a number of products (at SITC 3 level) for labor-abundant and GCC countries with the following characteristics: they are all exported and they have positive RCAs; their product categories are also those that have registered an average annual import growth from China and India that is higher than those imported from the rest of the world between 2000–05.

- In labor-abundant countries the manufacturing sector does indeed face competition, significantly so in food, resource intensive and unskilled labor sectors, including textiles, leather, or furniture. Skilled-labor and technology-intensive manufacturing are less affected, but they also play a smaller role in domestic production. At a higher disaggregated level (5-digit SITC), 798 manufactured products face competition from China and India on the domestic market, so about 94 percent of total manufacturing is potentially at risk.

- In GCC countries, Chinese and Indian products appear to be more complementary. Competition seems to be more prevalent in industries GCC countries succeed in internationally. For others, competition is more moderate. Again, manufacturing industries are generally less important for GCC countries.

Table 1.3: Competition on MENA's domestic markets

		Food	Crude materials	Natural resources	Unskilled labor	Skilled labor	Technology
Labor-abundant countries	**Total**	**35**	**28**	**17**	**25**	**41**	**63**
	RCA<0	19	11	5	8	36	51
	Contested	**15**	**11**	**4**	**8**	**33**	**51**
	RCA>0	24	23	16	20	11	15
	Contested	**20**	**17**	**13**	**17**	**8**	**12**
GCC	**Total**	**35**	**27**	**17**	**26**	**38**	**58**
	RCA<0	28	12	10	18	34	46
	Contested	**24**	**11**	**8**	**16**	**27**	**40**
	RCA>0	15	22	11	10	13	20
	Contested	**11**	**16**	**9**	**10**	**11**	**18**

Source: Staff calculations based on UN Comtrade.

LOOKING EAST—IS MENA SEIZING OPPORTUNITIES IN TRADE WITH INDIA AND CHINA?

Opportunities for exports to China and India have not been fully exploited

1.27   MENA countries export a wide range of products to the two Asian countries (table A1.5 in Annex I). Are they seizing all existing export opportunities? The issue will be further investigated in Chapter 2. As a first assessment, we review the RCAs of MENA exports and filter out those products with a positive RCA, for which average growth in exports to China and India was lower than the average growth rate of Chinese and Indian imports of the same products from other countries. The idea is to find MENA products of demand in India and China which are not being exported in sufficient quantities despite the fact that they grew strongly in other markets (table 1.4). The analysis, performed at the 3 digit level, yields the following results:

- In labor-abundant countries 20 of the 109 product categories with positive RCAs have relatively weak growth and underperformed in the China market. These 20 product categories include fertilizers, vegetables, and confections (chocolates). For India 31 of 109 product categories show lackluster growth, among them wood, aluminum, chemicals, and yarns.

- For GCC countries, India and China do not present many opportunities in product categories other than crude materials. Here, however, there still seems to be room for more exports, especially in chemicals, paper, skins and stone, sand, and gravel.[6]

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[6] See tables A1.13 and A1.14 in Annex I.

Table 1.4: MENA exports that underperformed in China and India

		Food	Crude materials	Natural resources	Unskilled labor	Skilled labor	Technology
Labor-abundant	RCA>0	24	23	16	20	11	15
	Under perform in China	7	4	5	1	0	3
	Under perform in India	4	5	5	11	2	4
GCC	RCA> 0	15	22	11	10	13	20
	Under perform in China	1	12	5	1	2	2
	Under perform in India	6	7	2	1	2	5

Source: Staff calculations based on UN Comtrade.

CONCLUSIONS

1.28   The rise of China and India has sustained high global demand and prices for such primary commodities as oil, gas, and minerals, presenting huge opportunities for MENA countries—but also significant threats for non-oil exports in both domestic and third markets. Natural resource booms tend to increase national income in resource-rich countries but hurt the competitiveness of their industrial sectors. Indeed, in some resource-rich MENA countries, there appears to be a further movement in favor of natural resources and an even more concentrated bundle of exports.

1.29   The competition with China and India may have displaced some non-oil exports on third markets. China appears to be a much bigger competitor than India, where non-oil exports largely complement MENA's. GCC countries have been more severely affected by competition with the Asian countries than labor-abundant MENA countries, in the few products that are exported. This could be because labor-abundant countries have privileged access to EU markets (and partially to the US markets). However, over the years we observe a shift in specialization with MENA's labor-abundant countries positioning away from China.

1.30   MENA's integration with China and India is increasing. This brings benefits to MENA countries such as higher revenues through more exports, more variety, higher consumer welfare through lower prices for consumption goods and greater competitiveness through lower input prices in manufacturing. But wider integration brings increasing competition for domestic producers, sometimes with job losses and bankruptcies if producers cannot withstand the competitive pressures. Competitive pressures did increase, especially for unskilled and resource-intensive manufacturing and food items in labor-abundant MENA countries. But it is not yet clear how this competition led to actual losses. The biggest gains in trade integration with China and India were realized through exports to both markets. Oil and gas exports increased massively in recent years. However, there is a significant and as yet unexploited potential for non-oil exports from labor-abundant countries.

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CHAPTER 2.   NON-OIL EXPORT DIVERSIFICATION AND GROWTH IN A COMPETITIVE WORLD

Do pressures from China and India to enhance competitiveness and improve productivity call for new policy measures in MENA countries or reinforce existing policies? This chapter discusses the challenges facing MENA's labor-abundant countries in world markets, specifically those for non-oil exports, since they appear to be threatened by competition with Asian countries. Global competition, including with China and India, has resulted in considerable reform of the economic structure and exports from MENA's labor-abundant countries, and a move toward new products and markets. Continuing reforms to eliminate trade diversion from preferential agreements, to reduce protection, and to improve the business environment may facilitate this adjustment and improve overall productivity.

NON-OIL EXPORT GROWTH AND DIVERSIFICATION

The performance of MENA's non-oil exports in world markets

2.1   Chapter 1 documented how competition in world markets, including from China and India, is putting pressure on non-oil exports of MENA labor-abundant countries. Table 2.1 summarizes the export growth performance of several labor-abundant MENA countries (of non-mineral fuels and excluding the erratic items ships and airplanes) from 1995 to 2006, during which competition in global markets from India and especially China has intensified. For simplicity, the labor-abundant countries listed in table 2.1 will be referred to as "MENA countries" in the rest of the chapter. China, and to a lesser extent India and a few MENA countries, showed extraordinary export performance over the period. Some countries in the region have been successful in expanding exports and increasing global market share in the face of increasing competition from India and China; other countries have seen their global market share stagnate or decline. Countries such as Egypt and Jordan have been able to increase their share of the international market, while Morocco, Tunisia, and Syria have seen their share decline.

2.2   Interestingly, the European Union has become an increasingly important export market destination for China, but less so for exports from the region. In 1995 the European Union was the dominant market for Maghreb country exports, receiving at least 75 percent of the region's exports; it also received about 50 percent of Egypt, Iran, and Syria's exports but much less of Jordan and Lebanon's. By 2006 Algeria and Egypt saw their share in the EU market increase substantially, with Tunisia seeing a more moderate increase. The other MENA countries' share in the EU market declined. The final two columns of the table show the share of their total exports going to the EU for each country. This share has declined for all countries, including India, but has increased for China. Thus, over the period 1995–2005, the importance of the EU as a market for the non-oil exports of MENA countries has declined, and significantly so for Iran, Syria, Jordan, Morocco, and Lebanon. Egypt and Algeria managed to increase their share of the EU market while the proportion of their exports going to the EU declined. This shows strong export performance in the EU together with export market diversification. Except China, all countries have seen the importance of the European Union as a market for their exports fall.

Table 2.1: Export growth and change in market shares, 1995 and 2006 (percent)

Country	Growth of total exports	Change in share of world trade	Growth of total exports to EU	Change in share of EU market	EU share of total exports	
					1995	2006
Algeria	193.8	31.8	146.3	25.1	78.8	66.1
Egypt	272.1	66.9	177.8	41.1	52.8	39.4
Iran	190.2	30.2	52.3	–22.6	55.9	29.4
Jordan	372.8	112.1	60.1	–18.6	19.8	6.7
Lebanon	189.7	29.9	80.7	–8.2	25.6	15.9
Morocco	94.3	–12.8	71.1	–13.1	75.9	66.8
Syria	121.0	–0.8	29.9	–34.0	44.6	26.2
Tunisia	116.8	–2.7	110.3	6.8	87.2	84.6
China	438.4	141.6	648.1	280.0	14.8	20.5
India	239.4	52.3	163.4	33.8	34.9	27.1

Source: Staff calculations based on UN Comtrade; excluding mineral fuels and large erratics (ships and planes).

2.3   What are the determinants of China, India, and MENA countries' performance in the EU market? Table A2.1 in Annex II shows the main drivers of the changes in market shares to the EU using constant market share analysis.[7] China's penetration of the EU market during 1995–2006 was spectacular. The analysis shows that it was due not only to increasing demand in the EU market but also to the strong competitiveness of Chinese products. The picture was mixed for MENA countries. In the more traditional export products of MENA countries, such as clothing, export growth has been slower than the increase in the size of the EU market due mainly to declining competitiveness. In a number of cases declining competitiveness has been offset, to an extent, by a favorable commodity and market composition of exports. Thus, reallocations toward faster growing products within sectors and expanding markets have been an important factor in export growth. In a few cases a favorable composition of exports was supported by strong competitiveness performance, for example, machinery (mainly car parts) in Tunisia.

Diversification into new markets is driving export growth

2.4   Export growth can be driven by an intensification of existing relationships such as exporting "traditional" products to traditional, old markets, or by the discovery of new export products and markets. The extensive margin, the change in export flows resulting from export flows to new markets and new products, appears to have been the dominant driver of export growth for most MENA countries during 1995–2006 (table 2.2). Only for Jordan and Tunisia is the contribution of the intensive margin, the change in export flows resulting from growth in existing export flows, greater than that of the extensive margin. This may indicate how the industrial structure in many MENA countries is changing and how each country is adapting to new competitive pressures by moving toward new markets or products.[8]

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[7] The technique allows all export flows to be decomposed into the impact of the overall growth of the EU market, the change due to the commodity structure of each country's exports (a bias toward commodities for which demand is growing fast will tend to raise the overall export growth rate), the change due to the market structure (reliance on individual EU markets that grow more slowly than others will tend to reduce overall growth rates), and a competitiveness term that catches the impact of increases in market shares of individual product categories.

[8] For countries of similar income the intensive margin appears to have been more dominant in driving export growth (Brenton and Newfarmer 2007; Amurgo-Pacheco and Pierola 2008). On average for 1995–2004 the extensive margin contributed to just 17 percent of the export growth of lower-middle-income countries (32 percent if China is excluded) and 24 percent of the growth of upper-middle-income countries. For the MENA region as a whole, the extensive margin contributed to 37 percent of export growth over the same period. A number of researchers support the view that diversifying at the extensive margin is what matters for developing countries (see Hummells and Klenow 2005 and Pham and Martin 2007).

Table 2.2: Decomposition of export growth into intensive and extensive margins, 1995–2005

	Algeria	Egypt	Iran	Jordan	Lebanon	Morocco	Syria	Tunisia
Increase of existing products to existing markets	57.0	57.2	61.1	78.1	81.8	110.6	99.6	101.6
Decrease of existing products to existing markets	-17.9	-19.1	-39.7	-9.0	-21.8	-47.2	-38.5	-25.0
Extinction of Existing products to existing markets	-34.5	-12.1	-26.0	-6.9	-22.1	-13.4	-21.0	-14.2
Total Intensive Margin	**4.6**	**26.0**	**-4.5**	**62.2**	**37.9**	**50.0**	**40.1**	**62.5**
New products to existing markets	28.3	10.1	26.4	12.7	14.9	4.5	19.3	8.4
Existing products to new markets	67.1	63.9	77.8	25.0	47.0	45.6	40.6	29.2
New products to new markets	0.1	0.0	0.3	0.1	0.1	0.0	0.0	0.0
Total Extensive Margin	**95.4**	**74.0**	**104.5**	**37.8**	**62.1**	**50.0**	**59.9**	**37.5**

Source: Staff calculations based on UN Comtrade.

2.5   One reason for the dominance of the extensive margin in some MENA countries appears to be the magnitude of decline in existing flows and the disappearance of exports of particular products to particular markets.[9] For all countries, the decline and disappearance of existing products contributed significantly to a reduction in export growth, more than for the average middle-income countries. Hence, the period since 1995 has seen considerable changes to the structure of MENA country exports, an indication of the profound transformation that is happening in their production systems.

2.6   Table A2.4 in Annex II identifies the key products and markets responsible for changes in the components of the intensive and extensive margins and presents the change in China's share of the world market for similar key products. The information in these tables suggests a rather nuanced view of export performance and of the impact of China. For several countries the key products that have driven growth at the intensive margin have also been responsible for declining exports. For example, in Tunisia the same product group, men's and boy's cotton trousers, is at the top of the list of existing products that have increased exports to existing markets and is also at the top of the list of declining products to existing markets. This suggests a remarkable shift in the structure of markets to which Tunisia exports this product. Pistachios have been a main source of increased exports from Iran to certain markets but have also been a key source of declining exports to other markets. Similarly for phosphoric acid for Morocco, ammonia for Algeria, and potassium chloride for Jordan. This suggests significant shifts in demand between markets or differing competitive conditions by market. The importance of the extensive margin for some MENA countries also reflects the fact that these countries started with fewer bilateral export flows than in other countries. The increase in exports of existing products to new markets is the dominating effect.

2.7   Can we identify a causality link between China's strong export performance, as measured by the increase in its global market share, and MENA countries' export outcomes? This is difficult to assess. For example, there are many cases where the products that are driving export growth in MENA have seen strong simultaneous increases in the global share of China. Moreover, there are signs of increasing integration into global production chains for electrical and motor-vehicle machinery in Morocco, Tunisia,

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[9] The contribution of each margin to export growth is, due to the nature of such a decomposition, influenced by the strength of the other margin. Weak growth at the intensive margin will tend to elevate the contribution of the extensive margin. Further, growth at the intensive margin is a function of the growth of the extensive margin in previous periods. Countries that already export a wide range of products have greater opportunities to see growth at the intensive margin and less scope for new export flows than do countries that initially export a much narrower range of products.

and Egypt, and increasing importance of intermediate and semi-finished goods for many countries in the region. Thus, the analysis suggests a complicated picture of export growth at both the intensive and the extensive margin, and shows that MENA countries are in the midst of important intrasectoral reallocations of resources to adjust to competition.

How MENA exporters are penetrating new markets

2.8   This section investigates the issue of export market diversification by looking at indicators of market penetration. The index of export market penetration confirms the previous analysis.[10] In 1995 MENA countries were exploiting a very small percentage of available export opportunities particularly compared with countries of similar economic size in Eastern Europe (table 2.3). Over the period 1995–2005, most countries have increased their ability to penetrate new markets, especially Egypt, Jordan, and Lebanon. But competing countries in the region have performed even better. The data suggest that many opportunities for increasing exports of existing products into new markets are lost. For example, Morocco takes advantage of 57 percent of the opportunities to sell its export products in Spain, but less than 20 percent of export opportunities in Portugal (table 2.4). MENA countries poorly exploit the opportunities to sell their exports in their own region. Egypt, for example, exploits only 18 percent of its export opportunities. Overall, MENA countries exploit very little of their available market opportunities and less than 10 percent in China and India.

Table 2.3: The export market penetration index, 1995 and 2005 (percent)

Country	1995	2005
Algeria	2.0	2.4
Egypt	6.5	11.3
Iran	4.6	6.9
Jordan	2.8	4.8
Lebanon	4.1	7.5
Morocco	6.0	8.7
Syria	4.3	7.2
Tunisia	4.4	7.7
Bulgaria	5.6	12.0
Lithuania	4.1	7.8
Romania	7.3	13.4
Slovak Republic	6.7	11.5
Turkey	13.5	27.1

Source: Staff calculations based on UN Comtrade.

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[10] This index is calculated by dividing the number of export market bilateral flows by the number of bilateral flows that would occur if the country were to export its products to all the markets that import such products. Brenton and Newfarmer (2007) find that countries with lower per capita incomes appear to do less well in exploiting available export opportunities than do richer countries.

Table 2.4: Bilateral export market penetration indexes, 2005

	Exporter							
Importer	Algeria	Egypt	Iran	Jordan	Lebanon	Morocco	Syria	Tunisia
USA	3.8	27.2	5.8	20.6	19.5	26.1	13.1	17.2
Belgium	9	17.3	6.3	4.6	12.9	25.9	9.6	28.1
Germany	7.4	33.2	32.9	11.5	16.7	33.5	18.7	36.2
Spain	19.9	27.1	15.3	11.2	19.1	57	12.9	29.5
France	32.5	26.6	17.7	6.1	21.8	57.3	18.5	61.3
UK	8.6	29.4	16.5	13.3	16	28.1	14.6	19.7
Greece	1	22	3.4	3.6	9.1	7.1	11.8	6.2
Italy	18.3	34	18.2	9.8	18.8	36.9	17.8	50.4
Netherlands	4.2	18.4	13	7.5	7.7	20.8	7.1	15.6
Portugal	3.4	7.1	3	1.6	2.1	19.4	0.7	11
Algeria	..	29.9	4.9	12.5	13.7	17	34.2	38.4
Egypt	2.6	..	4.2	26.6	18.3	2.9	19.8	4.7
Jordan	1	38.4	8.7	..	32.5	1.6	40.5	2.9
Morocco	15.5	25.2	4.9	4.4	10.7	..	17.8	23.6
Syria	0.8	19.8	6.4	16.2	19.2	1.1	..	1.3
Tunisia	11	18.3	2.3	4.3	6.9	24.2	14.5	..
Turkey	9.8	19.6	25.8	10.8	6.5	16.5	12.2	14.5
S. Arabia	5.8	69.9	34.2	56.3	56.1	23.2	72.5	18.7
China	**6.3**	**12.8**	**15**	**8**	**3.1**	**11.2**	**3.5**	**13.1**
India	**3.5**	**11.8**	**19.6**	**8.9**	**5.4**	**9.2**	**2.7**	**2.2**

Source: staff calculation based on UNComtrade SITC Rev.2, 2005 data

Note: Iran and Lebanon did not reporter import data in 2005, and are thus not included among importers.

A graphic representation of successful diversification into new markets

2.9   Figure 2.1 illustrates how export market diversification has evolved in a sample of MENA countries between 1995 and 2005. Each point on the figure represents exports of a particular product in a particular market. The x-axis shows the number of overseas markets to which the product is exported. The y-axis indicates the overall value of exports of the product. As discussed in the previous section, all MENA countries appear to have moved into more markets, particularly Egypt and Morocco, although the discussion of export market penetration above demonstrates that there is enormous potential to exploit additional market opportunities for existing products to further drive export growth.

Figure 2.1: Export diversification in selected MENA countries, 1995 and 2005

Export of Jordan in 1995

Export of Jordan in 2005

Export of Lebanon in 1995

Export of Lebanon in 2005
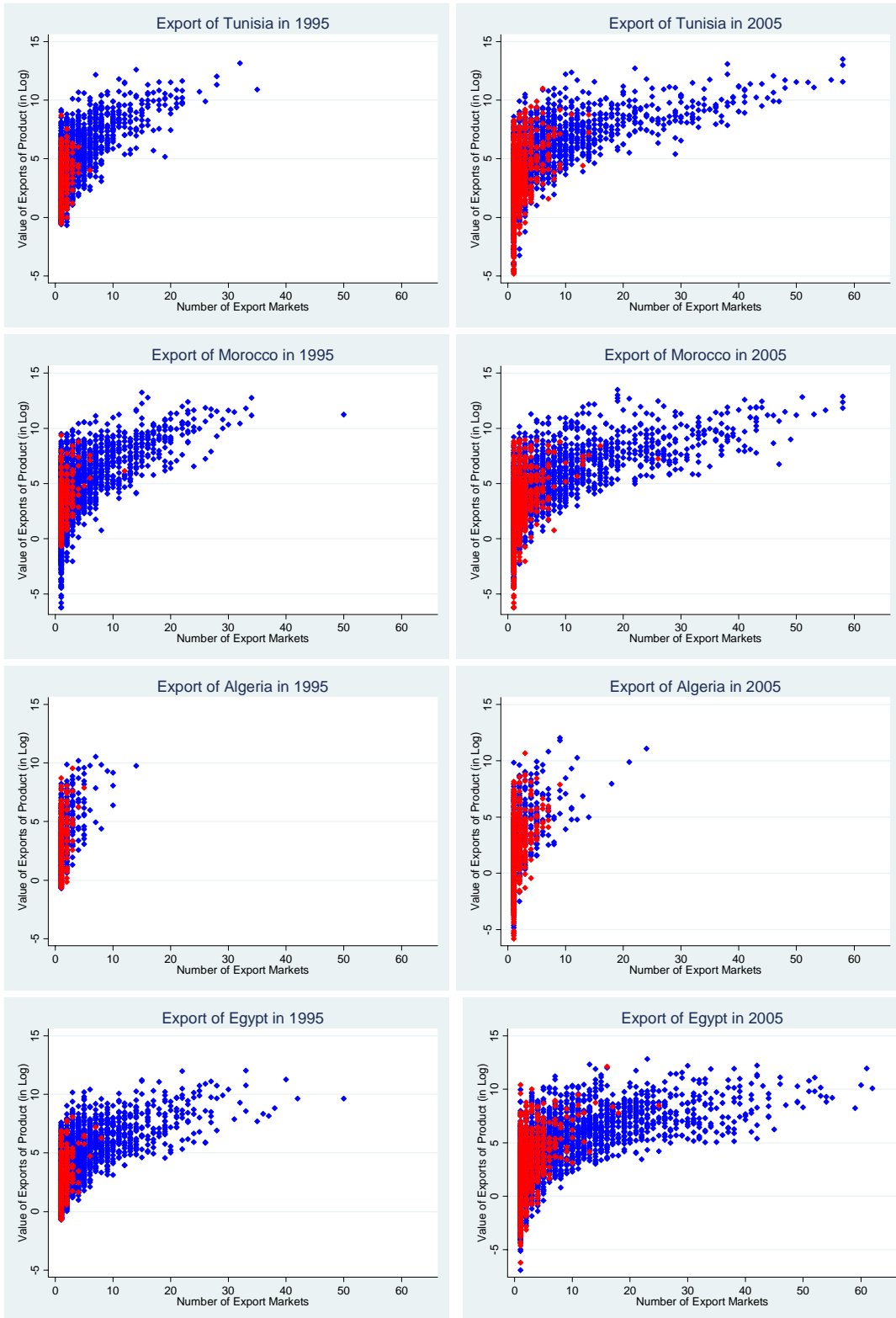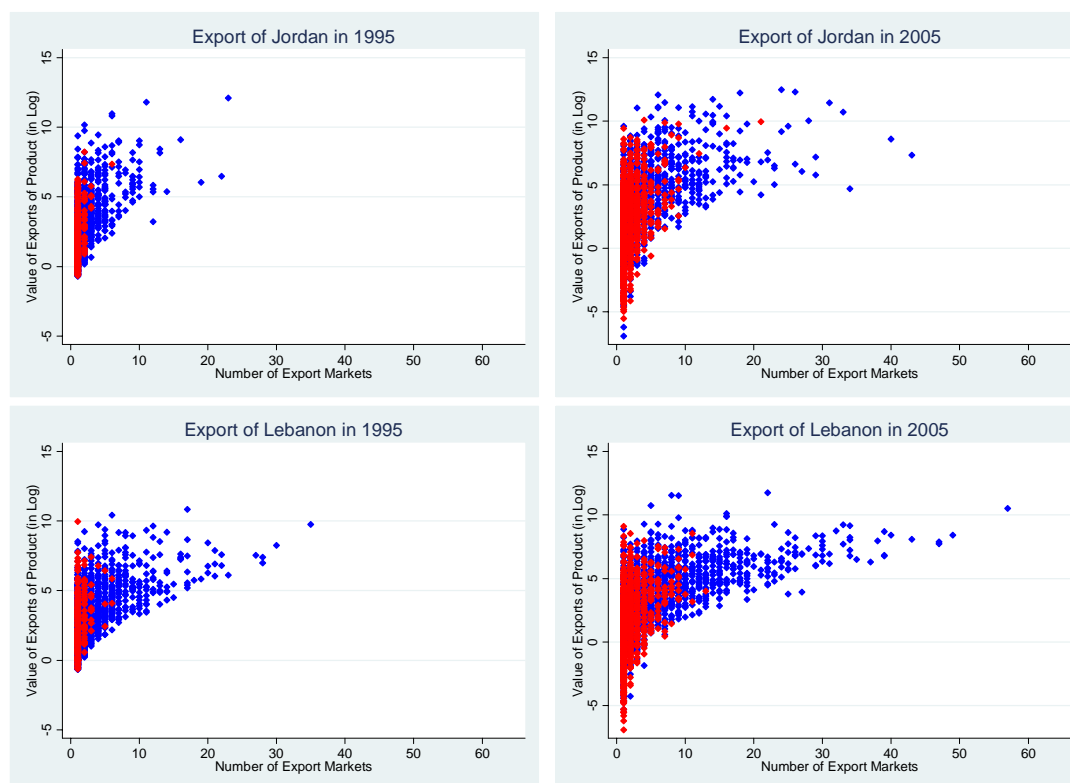
Source: Staff calculations based on UN Comtrade.

PARTICIPATION IN GLOBAL PRODUCTION-SHARING OF LABOR-ABUNDANT COUNTRIES

2.10   The way goods are produced and exported around the world has changed profoundly in recent years. Technology and the presence of scale economies (at both firm- and economy-wide levels) have made breaking down production in different stages possible and have resulted in the development of global production networks. The process by which final goods are produced can take place outside the firm and even outside the country of origin, where costs are lower or innovation is higher. Off-shoring naturally requires low trade tariffs, logistics, and transport costs. When off-shoring is high, trade in intermediate goods (parts and components as well as semi-finished goods) is also high. A large share of intermediate goods typically indicates that the country or region is well integrated internationally and participates in global production-sharing.[11] MENA countries export and import a large share of intermediate goods, much like India but not China. China's trade structure includes a large percentage in parts and components, for both imports and exports and a high level of final consumption exports. MENA imported semi-finished goods include steel, non-ferrous metals, and other products used as inputs in the early stages of production, but less so of the technologically advanced machinery (table 2.5). Trade in parts and components is usually a better indicator of how much countries are participating in high value-added production chains. Worldwide trade in parts and components quadrupled between 1993 and 2006, increasing from 17 percent of total manufacturing exports to 27 percent. By contrast, MENA countries do not fare well in trade with parts and components, which account for less than 10 percent of the region's exports and about 15 percent of imports. But there is a large variation in component trade across countries. Only a negligible share of Egypt and Syria's trade is in components, whereas Morocco, Tunisia, and Jordan all have a high share of exports in components.[12]

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[11] Coe and Helpman 1995.

[12] Shares in import of parts and component trade are also the highest for these countries.

MENA exports have low levels of technology content

2.11 An important channel used by East Asian firms to acquire knowledge and technology is importing new machinery or directly purchasing new technology from abroad. MENA countries import only 10.9 percent and export about 2 percent of high-tech products. There are, however, differences across countries (see table A2.3 in Annex II): Algeria, Iran, and Jordan import products with higher technology content than those of most other MENA countries, but these are mostly final goods (or goods to be used in capital-intensive, resource-based industries). Jordan is the only country that also has higher technology content in exports, while exports from most other countries hardly exceed 2 percent, with few exceptions. By contrast, China

Table 2.5: Manufacturing trade by stage of production, 2006 (percent)

Export	Labor-abundant MENA	China	India	World
Intermediate goods	65.6	44.9	67.7	57.2
Parts and components	9.6	21.2	14.1	27.1
Semi-finished goods	56.1	23.7	53.5	30.1
Final goods	33.3	53.3	30.1	38.8
Consumption goods	27.4	29.5	22.2	16.2
Capital goods	5.9	23.8	7.8	22.6
Import	**Labor-abundant MENA**	**China**	**India**	**World**
Intermediate goods	58.4	71.1	55.9	57.4
Parts and components	15.3	43.4	17.3	27.3
Semi-finished goods	43.1	27.7	38.6	30.1
Final goods	38.9	27	33.3	38.8
Consumption goods	11.1	2.9	5.1	16.7
Capital goods	27.8	24.1	28.2	22.1

Source: Staff calculations based on UN Comtrade.

trades products with very high-tech content (38.5 percent in imports and 23 percent in exports). Most important, half of China's high-tech imports are used to produce technologically advanced exports. Products made in China are becoming more sophisticated and moving away from mass manufactured low-tech goods. For example, China now exports more personal computers, cellular phones, and last-generation televisions than it does basic metal tools, radios, and the like. While much of this production is still assembly of high-tech products, China's technological capacity has also improved. In MENA countries, by contrast, imported technology is directed more toward domestic use than to manufacturing. Electrical machinery and chemicals account for the most significant share of high-tech imports in MENA, while imports of general and precision machinery are much less important than in other regions.

Intraindustry trade is low but rising

2.12 The intraindustry trade index provides another indication of how intensively countries participate in international production chains.[13] Intraindustry trade is now the fastest-rising portion of global trade, allowing countries to participate in production chains and to specialize in their comparative advantages.[14] Intraindustry trade has risen in many MENA countries, particularly Tunisia, Morocco, and Egypt (figure 2.2). But the region as a whole is still poorly integrated into the global production chains that characterize many high-growth and high value-added manufactured industries.

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[13] The intraindustry trade index (also known as the Grubel-Lloyd index) is calculated using unit values of exports and imports at the Harmonized System six-digit level from UN Comtrade. It is based on the difference between the trade balance (difference between exports, X, and imports, M) of the industry or product i, $(X_i – M_i)$ and the total trade of the same industry or product $(X_i + M_i)$. The higher the value, the larger the share of intraindustry flows in total manufacturing trade. The index ranges from 0 (no intraindustry trade) to 100 (fully integrated manufacturing trade).

[14] See Balassa and Bauwens 1987.

What explains these outcomes?

2.13 A variety of explanations for the poor integration of MENA in production networks has been put forward, but the results have been mostly inconclusive (box 2.1). One factor is certainly the limited amount of foreign direct investment that MENA has received in manufacturing. Another factor is small size and limited production opportunities of MENA economies. Lack of effective regional integration has made the realization of large economies of scale, an

Figure 2.2: MENA intraindustry trade index by country

Source: Staff calculations based on UN Comtrade.

important determinant of integration in production networks, nearly impossible. Integration with China and India appears difficult to achieve. An obvious barrier—aside from limited foreign direct investment flows from both countries—is the large distance between them, which raises transaction costs for trade. Proximity has been one of the essential factors for integrating Asian countries (Haddad 2006). And yet, MENA countries are poorly integrated into European production chains, most likely because of high logistic and transport costs as well as still high trade barriers.

Box 2.1: Determinants of intraindustry trade

Several studies have discussed and tested country- and industry-specific influences on intraindustry trade, yielding the following findings:

Market size. Helpman and Krugman (1985) argue that the share of intraindustry trade in manufactured goods trade tends to increase as the average market size of the two countries increases due to economies of scale. By contrast, a country with a small domestic market has limited opportunities to take advantage of economies of scale in the production of differentiated intermediate goods.

Inequality between two countries. The share of intraindustry trade in final goods is expected to vary negatively with the bilateral inequality in per capita GDP between two countries, while the sign for intraindustry trade in intermediate goods is ambiguous. Linder (1961) and other studies use per capita income differences as proxies for consumer tastes and preferences. As per capita incomes of two countries become closer, their tastes and preferences also become similar. Hence, the share of intraindustry trade rises as the difference in per capita income declines. Alternatively, Helpman and Krugman (1985) consider differences in per capita income as differences in the capital-labor ratio. Thus, there is an expected negative relationship between bilateral inequality in per capita GDP and the share of intraindustry trade in final goods. With regard to intermediate goods, there is no clear consensus on the sign of bilateral inequality in per capita GDP on intraindustry trade. Ethier (1982) predicts that as differences in factor endowments rise, intraindustry trade in intermediate goods declines. But Feenstra and Hanson (1997) predict that intraindustry trade in intermediate goods is more likely to take place between countries with greater dissimilarities in per capita GDPs between home and foreign country.

Human capital. Helpman and Krugman (1985) and Ethier (1982) suggest that differences in human capital (particularly high-skilled workers) between countries reduce the extent of intraindustry trade in intermediate goods. If the difference is large, intraindustry trade is expected to be small. Conversely, Feenstra and Hanson (1997) show that an increase in the ratio of the supply of skilled labor in the home country, relative to the foreign country will increase vertical specialization from the home country to the foreign country.

Distance. Balassa (1986) argues that intraindustry trade tends to be greater when trading partners are geographically close. Distance increase transaction costs, including insurance and transportation costs. Even small changes in transportation costs can have a major effect on fragmentation decisions because transportation costs are a significant fraction of total costs if intermediate goods cross multiple borders. Thus, the decision to fragment production depends on a tradeoff between its extra transportation costs and the cost saving that can be achieved by outsourcing some of the production stages into countries where factor prices are cheaper—thus there should be a higher propensity to outsourcing to neighboring countries.

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Is MENA benefiting from the emerging triangular trade flows?

2.14   International processing activities, based on inputs imported from Japan and other Asian countries, have been the engine of China's trade expansion, allowing for rapid diversification of its manufacturing export capacities. Indeed, much regional trade in East Asia can be traced back to a triangular pattern of trade of intermediate goods, with additional processing at each stage, until the final product is exported. Typically, Japan exports a high share of parts of electrical appliances, office and telecommunications as well as other components to China and other Asian countries, to undertake processing. The final product is then exported to the European Union and the United States. Imports of intermediate goods, particularly parts and components from Asia, have been the major channel of technology transfers, helping China to improve the high-tech content of its exports. In East Asia this trade development has been explained by several needs: to reduce costs by outsourcing sub-processes to countries where unit labor costs are lower, to locate production near sources of consumer demand and input supply, and to centralize production of finished goods or inputs to benefit from scale and other agglomeration economies, including thicker labor markets and faster learning of new technologies.[15]

2.15   How important is triangular trade?[16] To what extent do MENA countries participate in this trade? The share of US triangular trade with China is high (around 12 percent for the US market), having increased more than 90 percent between 1995 and 2005 (figure 2.3). Both the European Union and the United States use China more than India and much more than MENA to assemble products. The share of India's triangular trade is low (especially with the European Union) but increasing as well. The share of MENA's triangular trade with the European Union and the United States barely changed over 1995–2005.

Figure 2.3: EU and US triangular trade with China, India, and MENA, 1995 and 2005 (percent)
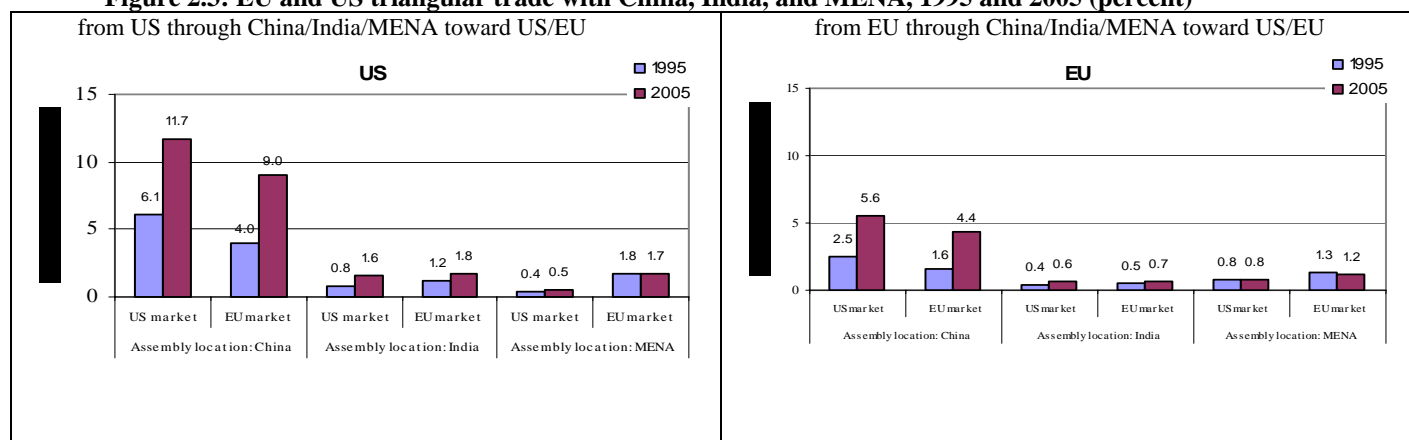
Source: Staff calculations based on UN Comtrade.

2.16   Did China or India use MENA as an assembly platform for their production of goods to be exported to the European Union and the United States? Or, conversely, did MENA countries see the low-cost opportunities of using China or India to assemble products for re-export? The triangular trade index can help answer these questions.[17] This index is the product between the share of total intermediate

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[15] See World Bank 2007i

[16] Triangular trade = (intermediate exports from country X to country Y) + (final exports from country Y to country Z).

[17] The triangular trade index is calculated as $TTI = \dfrac{Int_{US,EU}^{LA,CH,IN}}{Int_{US,EU}^{World}} \times \dfrac{Fin_{LA,CH,IN}^{US,EU}}{Fin_{LA,CH,IN}^{World}}$ where Int_{EX}^{IM} is the value of exports of

intermediate goods from the exporter, *EX*, to the importer, *IM*, and where Fin_{EX}^{IM} is the values of exports of final goods from *EX* to *IM*. For example, in the electrical machinery industry, if 10 percent of the intermediate goods that the European Union exports to the world go to MENA, and 50 percent of the final goods that MENA exports to the world go to the European Union, the triangular trade index is 0.05.

exports from one country to another times the share of total finished exports from the second country to the first country. When the exporters of intermediate goods (in this case the European Union and the United States) raise their share of intermediate goods going to MENA or when the assembler countries (MENA) sell more final goods to the European Union and the United States relative to the world, MENA's triangular trade index rises. MENA's triangular trade with China and India is very small but it has increased over the last decade. MENA's integration in India's process is higher and increasing relative to MENA's integration into China's production chains (figure 2.4).

Figure 2.4: Triangular trade index for China, India, and MENA, 1995 and 2005
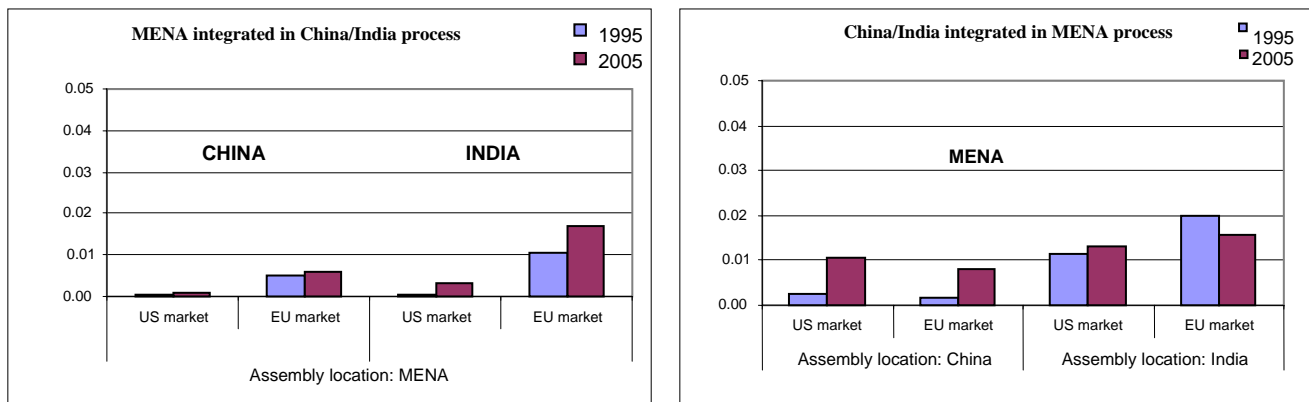
Source: Staff calculations based on UN Comtrade.

2.17 However, there are some new and positive developments. Figure 2.5 shows that triangular trade has risen significantly in some sectors, such as textiles and power generating machinery.

TRADE POLICIES TO INCREASE MENA'S INTEGRATION WITH CHINA AND INDIA

2.18 The previous sections have discussed the performance of non-oil exports of labor-abundant countries during 1995–2006, a time of intense global competition, particularly from China and India. But what are the factors that are responsible for this performance? This section looks at trade policies, as they are the key determinants of trade outcomes.

Figure 2.5: Triangular trade by sectors, 1995 and 2005

Source: Staff calculations based on UN Comtrade.

Reasons for weak integration include still high tariff protection

2.19 According to the MENA 2008 Economic Developments and Prospects Report (World Bank 2008b), the past decade has seen a broad trend toward reducing trade barriers. The world average of import duties dropped from 14.9 percent in 1997 to 10.8 percent in 2007. The move toward more open import policies occurred in virtually all MENA countries, where the average reduction in import duties was higher than for the world overall and where the average import duty has been moving toward the world mean (figure 2.6). But there is substantial diversity across the region, with tariffs averaging from about 5 percent in the GCC countries and Lebanon to more than 20 percent in Iran, Morocco, and Tunisia.

Figure 2.6: Simple average of most favored nation duties across MENA (percent)
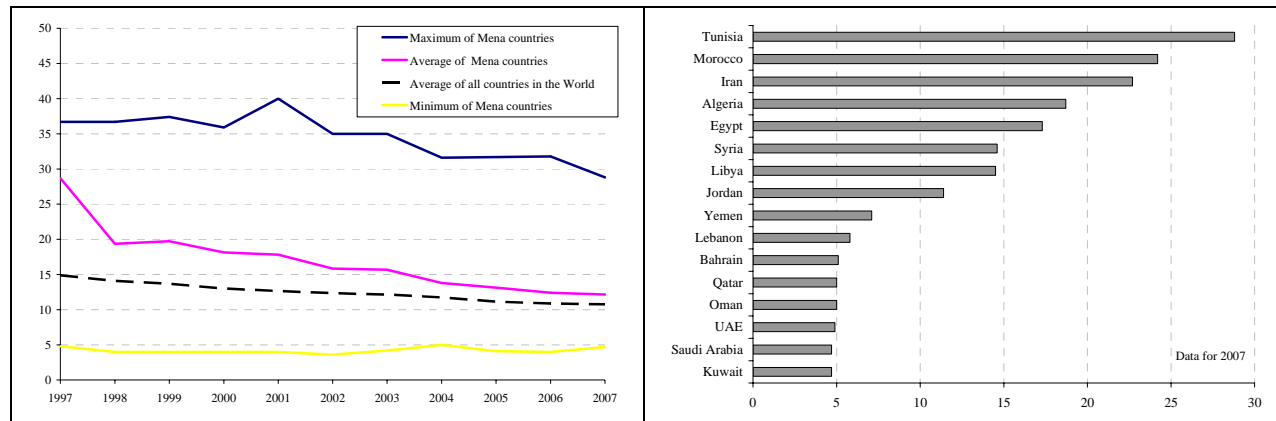
Note: Most favored nation duties include customs duties or surcharges.
Source: Staff calculations based on the IMF Trade Restrictiveness database.

2.20   Some imports to MENA countries benefit from preferential treatment and are subject to lower applied duty rates. Moreover, since high tariffs discourage imports, the trade-weighted tariff averages tend to be lower than simple averages that give equal weight to each tariff line. Thus, for 2006–07 import-weighted applied tariffs (which reflect preferences offered to particular trade partners) ranged from 11.5 percent in Morocco, 6.9 percent in Egypt (in early 2008), and even lower in GCC countries. However, many competitors have more liberal import regimes and less antiexport bias (for example, tariffs are less than 2.0 percent in Bulgaria and Turkey, and 5.3 percent in China).

Most MENA countries are members of regional groups

2.21   The large number of bilateral, subregional, intraregional, and interregional preferential trade agreements that have proliferated in the MENA region in the last 15 years or so indicates that most MENA countries are effectively integrating into regional groups. Examples include Bahrain, Jordan, and Morocco's free trade agreement with the United States; the Agadir Agreement among Egypt, Jordan, Morocco, and Tunisia; the Pan-Arab Free Trade Agreement among 22 Arab states; the free trade agreement between the European Union and Algeria, Egypt, Jordan, Lebanon, Morocco, Syria, Tunisia, and the Palestinian Authority. Tunisia is the first country that has fully implemented its agreement with the European Union, and all industrial products are now freely traded.

2.22   Have trade outcomes improved as a result of increased integration? Intraregional trade has increased but remains low, because of similarity in trade structures and political economy issues.[18] Given that many MENA countries have signed preferential agreements with the EU, it is important to ask whether these agreements have improved their export performance. The issue, of course, deserves a more comprehensive analysis. Table 2.1 showed that exports to the EU have become progressively less important (as a share of their total exports). An interesting sector to look at is clothing, a sector that has been completely liberalized since 2006.[19] Recent export growth in clothing was not due to the effect of the free trade agreement with the European Union but occurred, to a great extent, in non-European markets or was the result of implementing the qualified industrial zones scheme.[20] Annex III discusses MENA's response to increased competition in the apparel markets.

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[18] See World Bank 2008c.
[19] The textile and clothing sectors were liberalized with the phase-out of the quotas in the Agreement on Textile and Clothing in 2005 (though in 2005 the European Union and the United States re-imposed restrictions on China's exports of some strategic products for a limited period).
[20] The rules of origin for the qualified industrial zones scheme specify a 35 percent value-added requirement that must be satisfied with inputs from Israel, Jordan, or the West Bank and Gaza, with a minimum of 11.7 percent from Jordan, 8.0 percent

2.23   The EU rules of origin may actually impede MENA's further integration in the global economy. For example, rules of origin for clothing are strict, requiring a double transformation (both the weaving and making up stages) in qualifying countries. Under the association agreements with bilateral cumulation, clothing manufacturers in MENA countries can use woven fabrics produced in the European Union to qualify for EU preferences on the final product. Indeed, the majority of fabric imports come from France, Italy, and Spain. But this raises the issue of whether these agreements have locked Morocco and Tunisia, and to a more limited extent Egypt, into production structures that have sheltered MENA producers from greater competition in the EU market with China or have actually handcuffed producers' ability to source inputs from new locations as a competitive response. An important feature of the global clothing market is buyers' wish that clothing producers take on more of the activities in the value chain, especially sourcing decisions regarding inputs. Restrictive rules of origin such as those of the European Union limit the opportunities for global sourcing—a situation that may leave MENA producers ill-equipped to compete internationally.

China and India face highly protected markets for their products

2.24   Tariff averages hide wide variation across products and trading partners. China and India tend to export products to MENA that are subject to above average import protection, particularly in Morocco and Tunisia (figure 2.7). Among the four countries of the Agadir Agreement (Egypt, Jordan, Morocco, and Tunisia[21]), only Egypt's bilateral tariffs for goods from India are below its national mean. This finding suggests that China and India are exporters of products for which the Agadir countries maintain substantial tariff barriers, except for capital goods (figure 2.8), presumably because domestic producers managed to get enough policy support to lower tariffs on capital goods that are needed to withstand international competition.

Figure 2.7: Bilateral import-weighted average of applied import duties, 2006 (percent)
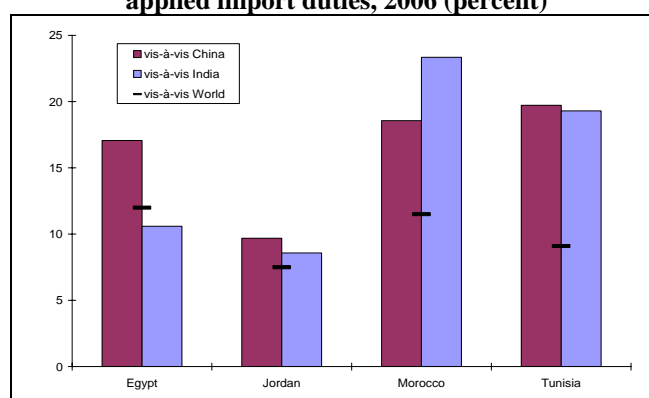
Note: Data for Egypt are for 2005 (latest available).
Source: Staff calculations based on UN Comtrade.

2.25   A number of products originating from the Asian countries have been subject to tariff peaks—that is, very high tariffs on individual products. The tariff schedules of the Agadir countries show a considerable number of such peaks (defined as three times the tariff average). At the Harmonized System six-digit level the national tariff schedules for 2006 showed 214 domestic tariff peaks in Tunisia, 58 in Morocco, 23 in Jordan, and 21 in Egypt. All the tariff peaks in Morocco and Tunisia are applied to imports of agricultural products. Many tariff peaks are prohibitively high, but some

Figure 2.8: Tariff barriers with China and India are lower for capital goods
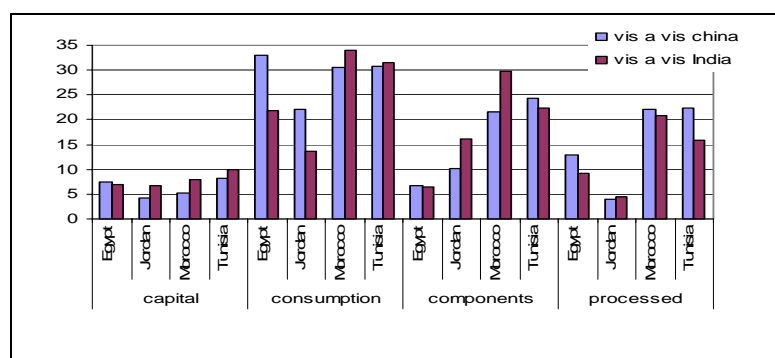
Source: Staff calculations based on UNCTAD's Trade Analysis and Information System.

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from Israel, and the remainder from any of the three countries. The agreement has a 35 percent value-added rule, all of which must be satisfied by inputs from Jordan, and a requirement that all of the making up of the clothing product must be undertaken in Jordan.

[21] The Agadir free trade agreement has been implemented since 2007. The four countries are also key partners in the Euro-Mediterrenean Partnership and in the Greater Arab Free Trade Area.

product categories saw imports from China or India (figure 2.9). Unless the transactions benefited from temporary concessions or exemptions, these findings suggest that there are large differences in production cost, and hence large untapped opportunities from further trade integration.

2.26 Imports from China and India also face nontariff impediments, which are significant in many MENA countries. One major factor behind high trade transactions costs is poor trade and transport logistics. The newly developed Logistics Performance Index (World Bank 2007b), which is based on a worldwide survey of global freight forwarders and express carriers, allows country situations to be compared across a broad set of transport and trade facilitation dimensions. Richer countries can devote more resources to investments

Figure 2.9: Some trade occurs despite peak tariffs
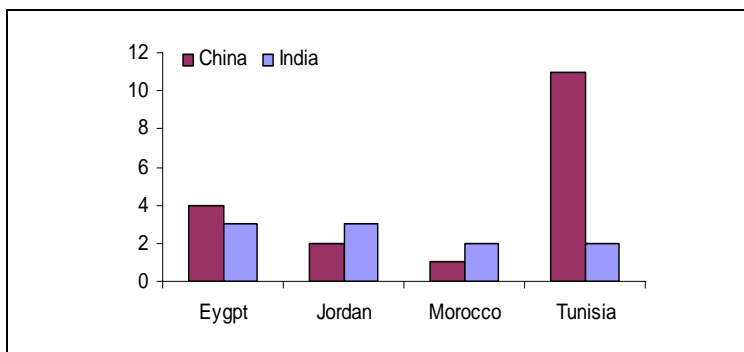
Note: Domestic tariff peaks with imports from China or India, 2006
Source: Staff calculations based on UN Comtrade and UNCTAD's Trade Analysis and Information System.

in transport infrastructure, interagency coordination, and staff training and, hence, show lower trade transactions costs than poorer economies do. The vast majority of MENA countries, including some of the Gulf countries (figure 2.10), score below the level of logistics performance that would be expected from their level of income. Only Jordan, the United Arab Emirates, Tunisia, and Yemen meet or exceed the worldwide average of countries in their income class. All other MENA countries fall short of expectations, and in some cases considerably so. By contrast, both China and India perform better than their income peers on trade logistics, which lowers their trade transactions costs, including with MENA countries.

Figure 2.10: The logistics performance of most MENA countries is below expectations
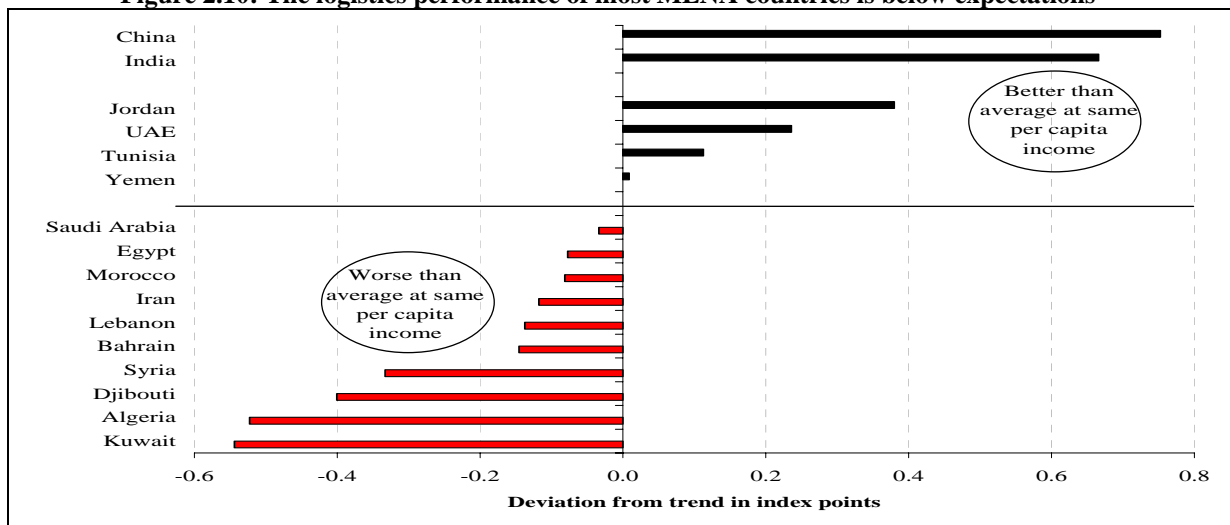
Source: Staff calculations based on World Bank 2007, *Logistics Performance Index*.

Import surges from China and India

2.27 As discussed in chapter 1, despite high trade transaction costs, imports from China and India have increased in recent years—considerably for some products. Was the surge in some of the imports the result of antidumping behavior or simply due to more competitive prices? A common definition of an import surge is an increase in import value of more than 30 percent over the average of the three preceding years. According to this definition, there are a large number of products whose imports from China (and to a lesser extent from India) have surged since 1998 (figures 2.11 and 2.12). In Egypt's trade with China 37

Figure 2.11: The number of import surges from China has increased
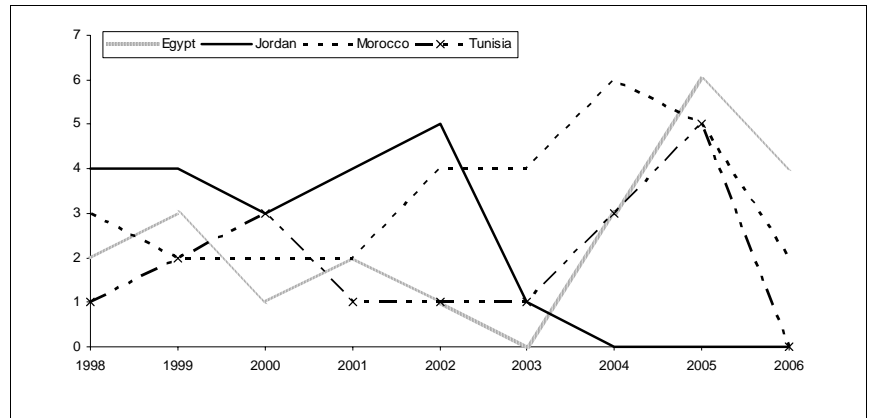
Note: Number of products with import increases of more than 30% over the preceding three years. Includes only products that account for at least 0.3% of total imports.
Source: Staff calculations based on UN Comtrade.

products in 2006 met the definition of an import surge. But in an overwhelming number of cases the Chinese imports replaced imports from other countries. In four products among Egypt's imports for which both total imports and imports from China surged in 2006, imports from China grew more.

2.28 Over time the number of import surges from China has varied across the four Agadir countries, while the frequency of import surges from India declined (see figure 2.12). The available trade data make it impossible to assess whether import surges are due to a more competitive underlying production offer from the Asian suppliers or whether they represent illegitimate dumping below production costs. But the observed pattern of a slight increase in surges from China and strong volatility in surges from India is consistent with observations on Asian imports into the EU and US markets, so that the

Figure 2.12: The number of import surges from India show no clear pattern
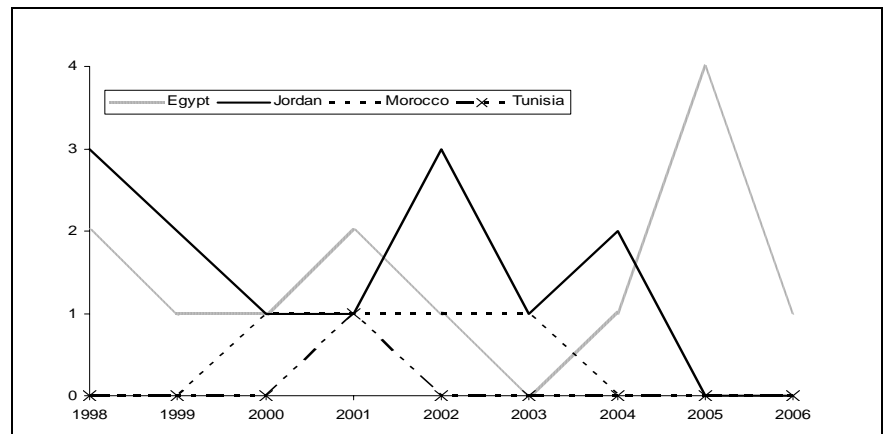
Note: Includes only products that account for at least 0.3 percent of total imports.
Source: Staff calculations based on UN Comtrade.

Agadir countries do not appear to encounter any "unusual" developments.

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Access to Chinese and Indian markets is low

2.29 The growing Chinese and Indian markets are potentially important export destinations for products from MENA countries. However, non-fuel shipments to these two markets face substantial trade barriers, especially in India. The two emerging giants have opened up significantly over the past decade (figure 2.13), but simple averages of most favored nation duties continue at about 10 percent in China and more than 18 percent in India. China and India's tariff barriers to imports from MENA are generally below the

Figure 2.13: China and India have liberalized, but maintain substantial tariff barriers
(simple average of most favored nation duties, percent)

Note: Most favored nation duties include customs duties or surcharges.
Source: Staff calculations based on the IMF Trade Restrictiveness database.

overall averages. Petroleum can enter China duty free and is subject to a relatively low 10 percent duty in India. But the trade-weighted tariffs on imports of non-fuel products from the four Agadir countries to China and India face above-average duties on shipments from Egypt and Tunisia and below-average duties for imports from Jordan and Morocco. The outlier is Tunisia's exports to China, which encountered very high duties in 2005. This finding is due to dominating shipments of diammonium phosphate fertilizer, which were subject to a 27 percent import tariff.

2.30 Both China and India's tariff schedules show substantial variation and more than 100 tariff peaks each. In China these peaks fall on agricultural and industrial products nearly equally, while in India 80 percent of peaks fall on agricultural tariff lines. In 2005 imports from the Agadir countries to China faced six peak tariff lines, and imports to India faced three,[22] suggesting that some MENA exporters were able to access the Chinese and Indians markets despite very high tariff barriers.

Simulating the impact of preferential trade liberalization with China and India

2.31 Given the market access opportunities for MENA countries in China and India and China and India's strong economic momentum, policymakers may wonder about the economic implications of preferential integration. One way to assess and quantify the prospective impacts of preferential trade liberalization is to use applied trade analysis tools, such as the partial equilibrium model Software for Market Access and Restrictions to Trade (SMART)[23]. Using this model to simulate the impact of a hypothetical free trade agreement between the Agadir countries and China and India suggests that the overall effect on import levels would be moderate. The strongest effects are projected for an agreement between China and Egypt (6 percent import increase) and China and Jordan (8 percent). However, the impacts in particular sectors can be much stronger (table 2.6)—even more so if the findings at individual

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[22] India's peak tariffs were higher in absolute terms, though.

[23] This model can be used to derive estimates of trade creation, trade diversion, and tariff revenue impacts of trade policy reforms, such as those occurring as a result of preferential trade agreements. The model is static and focuses on a single country at a time, so the tool cannot capture intertemporal links among variables or interactions between contemporaneous reforms in several countries. But SMART works at a highly disaggregated level, so information on the prospective impacts of tariff reforms on narrowly defined product groups can be derived. A full technical description of the model can be found in UNECA 2005.

product level are inspected. For all Agadir countries a free trade agreement with China would have more pronounced effects on import flows than an agreement with India would.

2.32 The results from the SMART model simulations should be treated with care, as they are derived using available estimates on import demand elasticities that might not fully reflect the recent economic situation in the countries analyzed. Also, drawing inferences from the extent of the projected import changes on employment impacts might be invalid, because a partial equilibrium model such as SMART cannot account for interactions between sectors through factor market adjustments. But the findings can contribute to the discussion on the prospective impacts of trade reforms and help stimulate more detailed analysis on adjustment patterns and support needs.

Table 2.6: Change in value of imports as a result of a China-Agadir and India-Agadir free trade agreement (percent)

China-Agadir Free Trade Agreement					
Sector	**China**	**Egypt**	**Jordan**	**Morocco**	**Tunisia**
Agriculture	0.0	6.0	1.0	12.0	3.0
Forestry	0.1	29.0	3.0	7.0	3.0
Food, beverages & tobacco	0.1	1.0	1.0	3.0	1.0
Textile, apparel & leather	0.1	31.0	26.0	5.0	1.0
Wood products & furniture	0.0	11.0	37.0	25.0	5.0
Chemicals, rubber & plastics	0.1	3.0	6.0	1.0	1.0
Non-metallic minerals	0.1	11.0	15.0	14.0	4.0
Basic metals	0.0	1.0	2.0	3.0	3.0
Fabricated metals & machinery	0.0	3.0	3.0	2.0	3.0
Other manufacturing	0.0	15.0	6.0	6.0	10.0
Goods not elsewhere classified	0.0	3.0	1.0	5.0	1.0
Total	0.0	6.0	8.0	3.0	2.0

India-Agadir Free Trade Agreement					
Sector	**India**	**Egypt**	**Jordan**	**Morocco**	**Tunisia**
Agriculture	0.0	1.0	1.0	0.0	0.0
Food, beverages & tobacco	0.0	1.0	0.0	3.0	0.0
Textile, apparel & leather	0.9	4.0	1.0	1.0	1.0
Wood products & furniture	0.0	2.0	1.0	1.0	0.0
Chemicals, rubber & plastics	2.4	1.0	1.0	1.0	0.0
Non-metallic minerals	1.5	1.0	1.0	1.0	0.0
Goods not elsewhere classified	0.5	2.0	0.0	0.0	18.0
Total	1.0	1.0	0.0	1.0	1.0

Notes: Simulations assume that bilateral trade is free and that all other economic and policy variables are constant.

Source: World Bank staff based on SMART data

2.33   This chapter has analyzed characteristics and patterns of the recent performance of non-oil exports in a number of labor-abundant MENA countries. It has highlighted a number of issues that warrant attention from policymakers to adjust the policy environment to the rising international importance of China and India and enable its producers and consumers to take advantage of new opportunities in the international economy.

2.34   The six key findings for the non-oil exports of the sample of labor-abundant MENA countries analyzed in this chapter can be summarized as follows:

- *MENA's non-oil export performance over the last decade has been mixed.* Some MENA countries have successfully expanded exports and increased market shares in the face of increasing competition from China and India. But others have seen their global market share stagnate or fall. Moreover, while China's share of the EU market has risen dramatically, the importance of the EU as a market for the non-oil exports of the MENA countries has declined, and significantly so for some countries. Declining flows of existing goods to particular markets have been an obstacle for export growth. In response, many MENA countries have successfully moved into new markets and, to a lesser extent, into new products. This will provide a base for stronger growth in the future. Despite these new developments, MENA countries have hardly taken advantage of available market opportunities, whether in developed or in developing countries. And less than 10 percent of potential opportunities in the Chinese and Indian markets have been exploited. This may reflect, in part, trade policy and logistical constraints and the high trade protection of China and India.

- *MENA's exports face high trade protection in Asian markets that may limit export opportunities.* Excluding petroleum products, analysis of Chinese and Indian tariffs on MENA country goods makes it clear that China and India continue to promote imports of raw inputs and maintain high protection on manufactured and processed material. Despite this, there are some examples of export success, particularly in some technologically advanced products in the natural resources sector.

- *MENA countries remain poorly integrated in production networks.* Indicators of component trade are comparatively low, and are reflected in the limited technology content of MENA's imports and exports. This poor integration prevents MENA countries from benefiting from the knowledge spillovers that usually occur within production networks. Limited foreign direct investment—particularly in manufacturing—and the small size of many MENA economies may contribute to explaining these outcomes. There are signs, however, of MENA's increasing integration of MENA with Chinese and Indian production networks for goods destined for the European Union and the United States. The major impediment to further integration with China and India may be the large distance, which results in very high transaction costs for on trade.

- *Despite recent reforms, MENA countries maintain relatively high trade protections.* High tariffs and nontariff barriers on imports bias allocation decisions against exporting prevent resources from moving to sectors where the country has a long-term capacity to compete, and limit the movement of resources within sectors to the most productive firms. Previous econometric work identified trade protection as the biggest constraint to export diversification.[24] Intraindustry trade and triangular trade are facilitated when tariff imports are low. MENA governments should continue tariff reforms to open up their economies and reduce trade diversion from preferential agreements. Effective trade preferences (those that

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[24] See World Bank 2007h

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are comprehensive in product coverage and have nonrestrictive rules of origin) can provide a limited window of opportunity to establish an export beachhead while the key domestic barriers to trade are addressed. However, free trade agreements with Europe may have sheltered MENA's producers, preventing them from becoming truly competitive because the strict rules of origin may have locked MENA firms into low value-added processing.

- *Despite the high trade protection with China and India, there have been import surges of their products.* However, no extraordinary pattern can be identified. Even so, concerned governments should analyze surges to see whether they warrant stronger antidumping provisions.

- *Governments have several measures to help firms upgrade quality and increase productivity in existing markets and to move aggressively into third markets.* While not specifically investigated in this chapter, recommendations from the literature concur on several strands. Governments can support export growth by identifying particular failures—in access to export finance or access to overseas market information—that limit firms in exporting to new markets. In many cases these constraints to competitiveness require specific interventions and institutions, including export and investment promotion agencies, standards bodies, and improvements in transport logistics. More generally, export growth at both the intensive and extensive margins will be facilitated by a structure of incentives that encourages resources to move to higher productivity activities and provides a framework that allows firms to upgrade quality and increase productivity to support growth in existing markets and move aggressively into third markets. Improving the backbone services critical for competitiveness is also essential to allow exporters to exploit the advantages they have in overseas markets and to drive productivity growth. These measures will help MENA producers become more competitive, including with China and India.

CHAPTER 3.   CHALLENGES AND OPPORTUNITIES IN GLOBAL SERVICES TRADE

Services trade—finance, communications, transport, health, and education—is the fastest growing part of world trade, where developing countries play an increasing role. Over the last decade MENA's services exports more than doubled, China's tripled, and India's quadrupled. Growing opportunities are thus associated with growing competition. China and India have become important players in the MENA region, especially for ICTs (India) and construction (China), and elsewhere. Competing with China and India would require MENA's improving quality and fully exploiting the advantages of cultural and geographical proximity with markets such as Europe and Africa. A number of measures are also suggested for MENA countries to benefit from the potential of services trade with China and India.

TRADE IN SERVICES

3.1   The competitiveness of firms and countries depends on their access to low-cost and high-quality services, including telecommunications, financial, transport, and logistics and distribution. The performance of service industries is heavily influenced by policies that affect market competition, including restrictions on entry and participation by foreign providers. Long considered as non-tradable and thus ignored in trade agreements and statistics, services have become important in international trade. The WTO defines the trade in services along four modes of supply (box 3.1).

Box 3.1: Trade in services: Four modes of supply

Services can be traded along four modes of supply (according to the GATS terminology):

- *Cross-border supply* (mode 1) is analogous to trade in goods, and arises when a service crosses a national frontier, as with the purchase of software or transport by a consumer from a supplier located abroad.

- *Consumption abroad* (mode 2) arises when the consumer travels to the territory of the service supplier, say, to purchase tourism, education, or health services.

- *Commercial presence* (mode 3) involves foreign direct investment, as when a foreign bank, telecommunications, or retailing firm establishes a branch or subsidiary in the territory of a country.

- *Movement of individuals* (mode 4) occurs when independent service providers or employees of a multinational firm temporarily move to another country to deliver a service.

3.2   Global cross-border trade in services—modes 1, 2, and 4—stood at $2.7 trillion in 2006, up from around $400 billion in the early 1980s, representing about 20 percent of total trade. In 2006 developing economies produced a quarter of world commercial services trade.[25] International trade in services thus remains dominated by developed economies, and most developing economies are net importers of services. Even so, developing countries growth in services (often at double or triple digit rates, higher than for developed countries) suggests that they are gaining market shares. India has become the second largest exporter of computer and information services (after the European Union). China has become the third largest exporter of travel services, and the second largest exporter of construction services. The share of MENA in world's service trade has remained unchanged since 1990 (2.7–2.8 percent). By

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[25] WTO, International Trade Statistics, 2007.

contrast, India's share has increased from 0.5 percent in 1990 to 2.7 percent in 2006. China's share has jumped from 0.7 percent to 3.3 percent during the same period (table 3.1).

Table 3.1: Overview of trade in services (US$ billion)

	Total Trade		Transport	Travel	Communication & Computer	Insurance & Finance	Construction
	1990	2006			2006[1]		
World	861	2,768	592	691	1185	173	n/a[2]
Share	(100)	(100)	(100)	(100)	(100)	(100)	
EU	336	1,108	239	266	78	117	24
Share	39.1	40	40	38	6.6	67.7	
MENA	23.2	76.1	15.7	28.2	24	0.9	n/a
Share	2.7	2.8	2.6	4.1	2	0.5	
US	146.5	418.8	68.5	106.7	14.2	46.4	5.5
Share	17	15	12	15	1.2	26.8	
China	5.9	92	21	33.9	3.7	0.7	2.8
Share	0.7	3.3	3.5	4.9	0.3	0.4	
India	4.6	75.4	7.6	8.9	31.4	3.2	0.4
Share	0.5	2.7	1.3	1.3	2.6	1.8	
Egypt	5.97	16.13	5.49	7.59	0.55	0.19	0.43
Lebanon	n/a	11.62	0.48	5.01	0.3	0.26	n/a
Morocco	2.01	9.84	1.49	5.98	1.67	0.08	n/a
Saudi Arabia	3.03	7.3	n/a	n/a	n/a	n/a	n/a
Kuwait	1.28	6.97	2.32	0.2	3.4	0.1	0
Tunisia	1.69	4.29	1.24	2.28	0.05	0.11	0.14
Syria	0.87	2.92	0.22	2.03	0.17	0.06	0
Jordan	1.45	2.49	0.53	1.64	0.28	0	0
Bahrain	0.36	1.85	0.74	1.05	0.06	0	0
Oman	0.07	0.91	0.32	0.54	0.05	0.01	0
Libya	0.12	0.49	0.13	0.19	0.01	0.06	0
Yemen	0.11	0.55	0.03	0.18	0.1	0	0

1. Missing values for 2006 are filled with 2005 data.
2. n/a means not applicable
Source: IMF, World Bank, OECD

3.3   Services trade, more than trade in goods, appears as the core of development strategies in some MENA countries. Resource-rich countries like Saudi Arabia and the United Arab Emirates have heavily invested in services to further diversify their economy and exports, and tourism often dominates. Countries of the Gulf Cooperation Council (GCC) plan to invest about $3 trillion into leisure and tourism (and indirectly into infrastructure) by 2020. Dubai tourism now contributes more than oil to the Emirate's GDP. Countries are also diversifying the service exports. Dubai promotes exports in ICT and media services in its Media city and Internet city. Morocco is becoming an important offshoring center, with the opening of a new offshoring park in December 2007. Fully 80 percent of its platforms were rented out to international corporations such as Dell, Bull, Mazar, and Ubisoft, making Morocco a preferred destination for high-tech enterprises. An analysis of the respective positions of MENA and China/India service providers on third or domestic markets would be greatly helped by data on bilateral services trade flows. But such data are not available. In general, data on trade in services are very poor, both in developing and developed countries, in part because services were long treated as nontradable, and thus ignored in balance of payments (BoP) statistics. None of the available statistical instruments use the WTO categories for negotiations and commitments. So, BoP data on imports and exports of commercial services are often

used as proxies for modes 1 and 2, foreign direct investment data for mode 3, and BoP data on remittances for mode 4. None of these proxies are fully satisfactory, and often the aggregation makes it impossible to have a precise picture for individual service sectors and sub-sectors.[26] That is why the analysis here uses anecdotal evidence and suggests interpretations.

CHINA, INDIA, AND MENA: COMPETING INTERNATIONALLY

3.4   MENA countries are at various stages of development in their service trade. Most remain small players on the world scene although they can offer quality services at lower price than European competitors. Egypt, the regional leader, ranks only 30th among leading world exporters of services (all commercial services included). China and India are 3rd and 5th, and their service exports have grown much faster than MENA's, widening the gap between the contenders.

3.5   Two main characteristics distinguish service trade in the MENA region. First, unlike most other developing countries, several MENA countries are net exporters of services (figure 3.1). But resource-rich countries run a deficit for obvious reasons: a large contribution of oil to the GDP results in greater need/resources for imports of services. Saudi Arabia runs the largest services deficit in the selection, with a deficit of more than $33 billion. Mainland China also runs a deficit of about $8.8 billion, while Hong Kong China is the world's largest net exporter of services, with a $35.8 billion surplus.[27]

Figure 3.1: MENA's service exports have grown slower than China's and India's
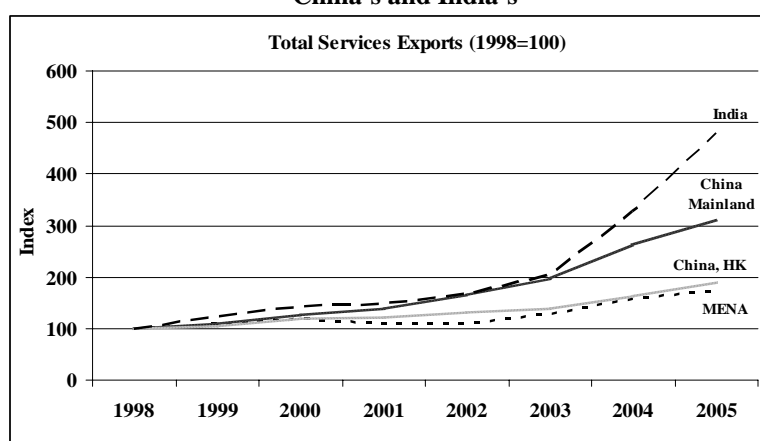
Source: IMF, Balance of Payments data, 2007.

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[26] The *Manual on Statistics of International Trade in Services* has been developed and published jointly by the UN, EC, IMF, OECD, UNCTAD, and WTO, managed through an interagency task force. The manual sets out an internationally agreed framework for the compilation and reporting of statistics of international trade in services in a broad sense. It is available on the websites of the six organizations.

[27] The service sector contributes to more than 90 percent of Hong Kong's GDP. Its success in service trade is largely explained by its open investment environment, intellectual property protection, and incentive programs. Increasingly, Hong Kong companies play an intermediary and showcase role, providing the consumers with certain guarantees of quality and reliability, using mainland workers or subcontractors. For this reason, the analysis here extends to Hong Kong (all graphs include both Hong Kong and Mainland China).

Figure 3.2: Net trade in services, 2006 (US$ billion)

Country	Value
China,P.R.:Hong Kong	35,8
India	11,8
Morocco	5,3
Egypt	4,6
Lebanon	2,3
Tunisia	1,8
Bahrain, Kingdom of	0,7
Syrian Arab Republic	0,4
Djibouti	0,2
West Bank and Gaza	0
Jordan	-0,2
Yemen, Republic of	-1,3
Libya	-2,1
Oman	-2,8
Kuwait	-3,2
China,P.R.: Mainland	-8,8
Saudi Arabia	-33,3
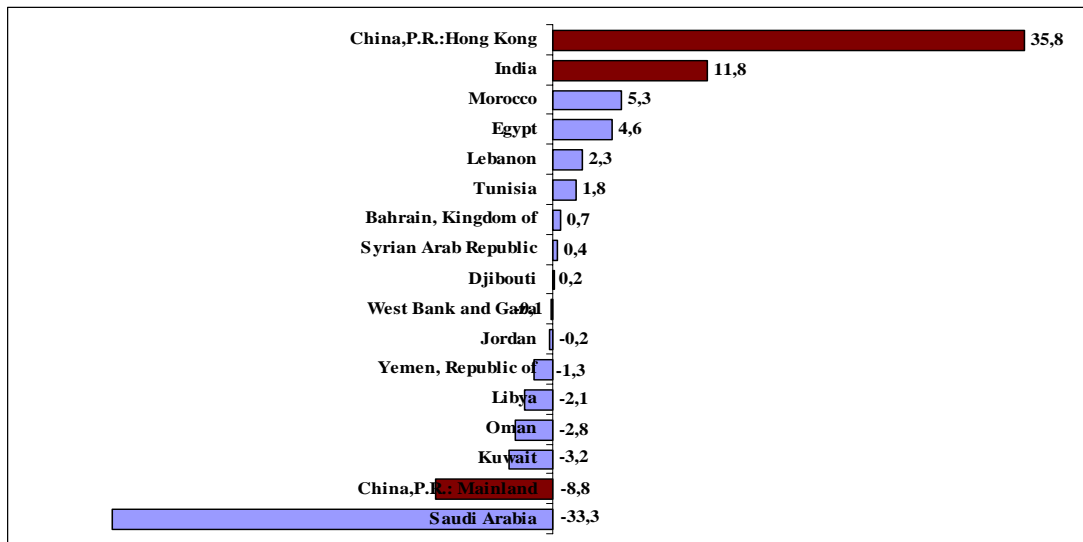
Source: IMF, Balance of Payments data, 2007

3.6   Second, MENA countries often rank better on net positions rather than exports alone; the opposite is true for China and India (figure 3.2). This could reflect different levels of trade openness or trade integration (the less open the country, the less it imports). Or it could reflect different levels of development and competitiveness. Morocco (15th), Egypt (16th), Lebanon (19th), and Tunisia (25th) all rank among the 30 largest net exporters of services. By contrast, China runs a large services trade deficit. India also has a net position (8th) that is lower to its export position (5th). Evidence suggests that MENA service providers better perform compared to their competitors, where quality matters most. However, India has gained reputation and expertise in sectors requiring high technology and skills. China still provides basic services at a lower price, but the situation is evolving quickly.

3.7   Many MENA governments struggle to find an appropriate strategy for services trade development. Is there room for MENA exporters between top-end OECD services providers and low-cost Asian firms? And can MENA service providers increase their competitiveness enough to flourish in this quickly evolving world market? The next section attempts to answer these questions by looking at three sectors where MENA services trade is important—construction and engineering, medical services, and ICT services. In these sectors, China or India appears to outperform MENA on domestic and third markets, suggesting that trade opportunities are being missed.

Construction and engineering services

3.8   MENA is a large consumer of construction and engineering services and regional providers have long exported their services to neighboring countries. Competition in these sectors is global, and China is a main contender. The construction boom now under way in MENA—particularly in resource-rich countries—explains the region's attractiveness for construction and engineering services. Dubai remains the construction capital of the region, with 15–25 percent of the world's construction cranes in operation, with Abu Dhabi and Jeddah next in line. The boom has caused shortages of materials and manpower, and a price surge of more than 20 percent since 2003.

3.9   In addition to European and US construction companies, providers from Japan, South Korea, Singapore, Malaysia, Indonesia, and China have increased their presence. A few UAE and Saudi companies have also started recruiting construction professionals from Egypt, Jordan, and Lebanon, and hiring general professional workers from Asian countries such as China, Nepal, the Philippines, and

Vietnam. Hong Kong companies have served as risk managers in trading with China, providing better assurances of quality, delivery, and payment.

3.10 MENA firms are competing with Chinese firms, not only on these regional markets, but also on third markets, such as Sub-Saharan Africa. The major Tunisian engineering firms are in more than 30 Sub-Saharan countries, but Chinese companies have rapidly gained market share, rising in Zambia and Tanzania to 30 to 40 percent over the past 5 to 10 years. China has moved from a net importer to a net exporter, as has India. But

Figure 3.3: Construction service exports (2000=100)
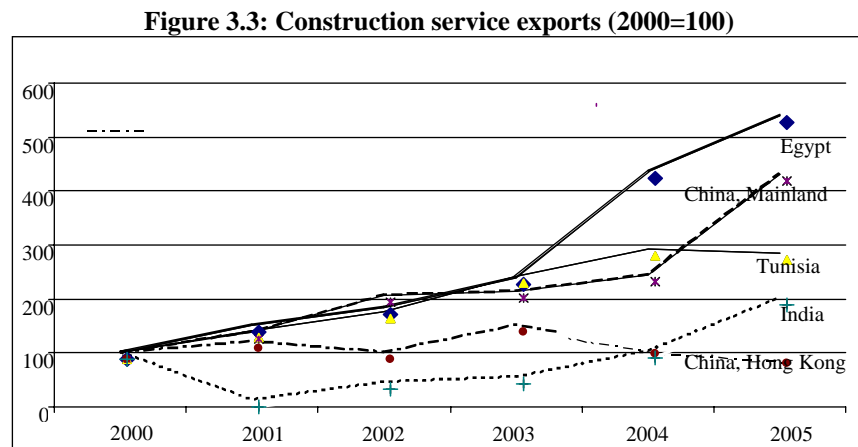
Source: IMF, Balance of Payments data, 2007.

growth of exports from traditional MENA construction services providers, such as Tunisia, slowed or even reversed (see figure 3.3). A notable exception: the rapid growth construction services in of Egypt, which seems to have benefited from the construction boom in the Gulf.

3.11 The construction boom in the Gulf has resulted in a growing demand for building materials and manpower. Local manufacturers have been the main benefactors of building materials, but limitations in local production (both qualitative and quantitative) have resulted in a spurt of imports from Turkey, South Korea, Indonesia, Malaysia, and China. Increased imports and low tariffs on these materials have helped meet the needs of this booming market at the lowest possible cost. Foreign construction companies have increased the available manpower in the Gulf, and the growing

Figure 3.4: Average salary increase (in %) in the GCC (2005–06)

Source: Gulftalent.com
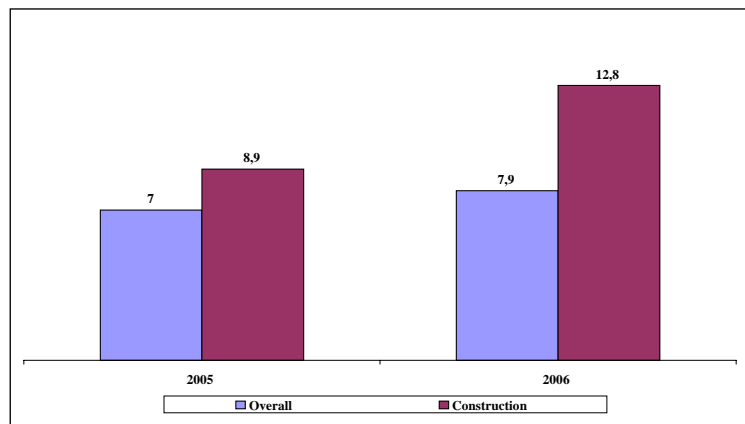
demand for workers has raised salaries in construction. Average salary increases have been higher in the sector than in the rest of the GCC economy (figure 3.4).

3.12 With a view to remedy this lack of the least qualified workers, construction companies tap into the Indian, Pakistani, and Bangladeshi labor force. China is also increasingly solicited. Nepal, the Philippines, and Vietnam are new sources of labor from which GCC countries recruit general construction services.[28]

3.13 But the use of foreign labor has generated controversies. This is true in the construction sector, but even more so in sectors where local labor is abundant and largely meets the demand. Often foreign companies, particularly Chinese and Indian companies, are accused of using foreign labor force with disregard for local capacities and working conditions. They are also accused of transferring less

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[28] HKTDC 2007.

technology and knowledge to the local economy (see Chapter 4). Information in this area is lacking, and should be taken with caution.

3.14 While data are not available for MENA countries, recent research in Africa provides some information on the source Chinese construction labor in the African market.[29] Chinese construction firms appear to source half their employees from the domestic market and half from China. For managerial positions, however, more than 90% of the jobs are filled by Chinese nationals. It is also suggested that Chinese contractors do not train or transfer skills to local staff and hardly outsource anything to local or regional suppliers. In the African market Chinese firms prefer a mode of entry that preserves their independence (local establishment through the creation of a local branch, office, or company, figure 3.5). Nonetheless, other more cooperative modes of entry are frequently used, suggesting that positive spill-over is not excluded. Against all criticisms, some suggest that technologies used by the Chinese firms are more easily transferable to local companies given their level of sophistication (compared with other foreign providers).

Figure 3.5: Entry modes of Chinese construction companies in African markets
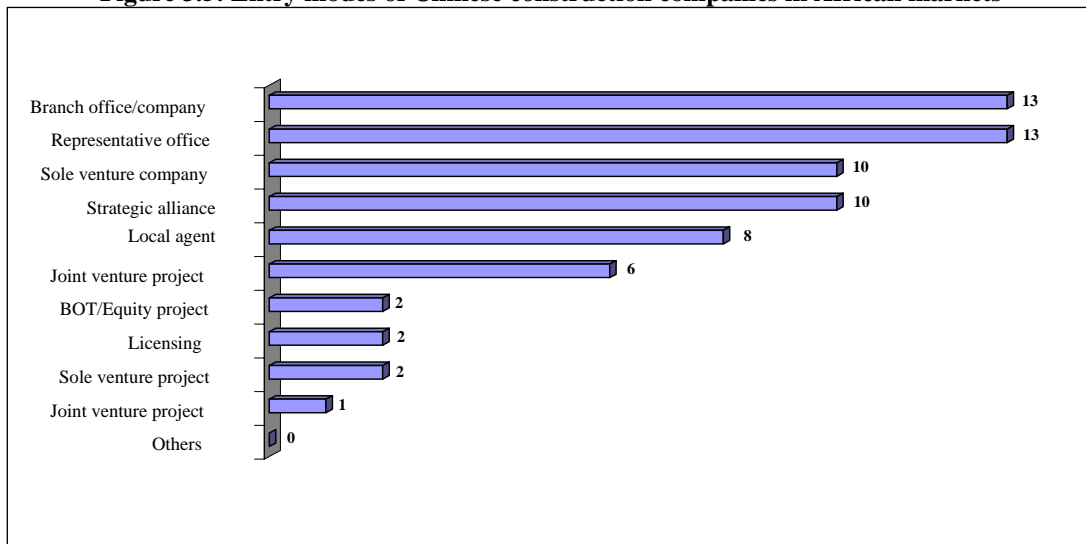
Note: Based on surveys of Chinese construction firms in Africa, marks correspond to the number of surveyed companies that opted for each different mode of entry
Source: Chen, Chiu, Orr, Goldstein, *2007*

3.15 How could construction firms and workers improve their productivity? A recent World Bank report that explored trade and competitiveness in engineering services in Tunisia reached conclusions that can be useful for others in the region:

- The best performing firms provide high-quality services, comparable to European standards, at a lower price than their European competitors.

- The lower end of the sector (price and quality) has already been through a phase of adjustment prompted by the emergence of Turkish firms on export markets. Public procurement rules greatly affect performance.

- Sustaining this competitiveness requires further investment in educating top-end engineers and adjusting the engineering curricula to focus on disciplines that meet the most up-to-date clients' needs (language skills, consulting, and environment).

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[29] See Chen, Chiu, Orr, and Goldstein 2007.

- Improving efficiency also requires further concentration of engineering and construction service firms, which employ a few hundred workers in MENA, compared with a few thousand in Europe.

Medical services

3.16   Medical and health tourism has been growing at a fast rate recently thanks to the aging of the population, higher consumption of health services with rising income, and supply shortages in many developed countries. While the movement of patients has traditionally been from South to North, developing countries now receive patients from the North who could not receive cost-effective treatment at home. India has been the main contender: a recent study by the Confederation of Indian Industry and McKinsey reported that 150,000 foreigners visited India for treatment in 2004, and estimated that health tourism could generate more than $2.3 billion a year in exports by 2012.

3.17   Tunisia, Morocco, and Egypt compete directly with India. Indeed, it appears that while MENA countries are relatively competitive on price, at least with India, Indian health care centers are more advanced in marketing and in conforming to international quality and hospitality standards (for example, only 5 of 70 Tunisian clinics are ISO certified).

3.18   The challenge for MENA countries is to move up the quality chain, by offering better hospitality and exclusive treatment, combining cultural and tourist activities with medical treatment, and finding the right niches. The ability of the doctors and nurses to communicate precisely with patients is crucial, for both comfort and safety. Some MENA countries thus have an advantage in francophone markets. Similarly, a patient is unlikely to fly halfway around the world for surgery, and wants to be in reach of family and doctors back home for any follow-up monitoring and interventions.

3.19   Given this tension between India's primacy on the market and MENA's cultural and geographical proximity to Europe, success is likely to depend on:

- Adopting international quality, safety, and hospitality standards and marketing services better.
- Investing more in training (and reforming the curricula) of medical and paramedical personnel, and in international cooperation on training and research.
- Adopting a regulatory and legal framework that facilitates trade in medical services (including a strict code of deontology, a favorable regime for investments, and coordinated governmental action).
- Attaining critical size, concentrating existing ventures, and promoting cross-sectoral financial participation.
- Facilitating the temporary movement of key medical personnel and adopting mutual recognition agreements with selected countries.
- Adopting bilateral social security conventions that ensure the reimbursement of medical acts for foreign patients of selected nationalities.
- Negotiating with private insurance networks for the portability of health insurance.
- Improving transportation facilities, particularly for medical emergencies.

Global outsourcing and communication services

3.20 The global market for service outsourcing is booming—more than $100 billion in trade and growing at 30 percent a year. In all kinds of IT and technology-enabled services, India leads the race (figure 3.6). It exported more than $20 billion in computers services in 2005, 600 times more than its closest MENA competitor, Egypt, and 1200 times more than its

Figure 3.6: Communications service exports (2000=100)

second closest, Tunisia.[30] The same pattern prevails in broader communications services, and the gap between the market leaders and their contenders is widening. Despite the fierce competition in communications, Kuwait has become the world second largest provider of telecommunications services (almost tripling its exports in one year to $3.4 billion in 2006), connecting an estimated 27 million mobile subscribers in the Middle East and in Sub-Saharan Africa.

3.21 MENA countries have invested and improved their infrastructure to become leading ICT economies, and Indian firms have been attracted to invest in the region, often to serve the domestic market. But Saudi Arabia has emerged as a platform for servicing the whole region, as in computer software. Since the Saudi General Investment Authority was established in April 2002, close to 200 licenses were awarded to Indian companies for joint ventures or 100 percent Indian-owned companies, for more than $1 billion, mainly in management and consultancy services, construction, ICT, and software development.

3.22 A few MENA countries have potential in the field: Egypt (13th), Jordan (14th), UAE (18th), and Tunisia (22nd) are among the top 40 locations for outsourcing services. Key assets include language and proximity:

- *Language* is essential in outsourcing and in many other ICT-enabled services. Knowledge of Arabic is essential to trade certain services, such as software outsourcing (where China is leading) and content development, e-learning, training, or e-commerce. Francophone MENA countries have an advantage in the French, Belgian, and Swiss markets, and Arabic-speaking countries could serve the regional market. For example, Morocco has attracted French and Spanish companies outsourcing their services (particularly call centers). After Kuwait, Morocco has the fastest growing communication service exports in MENA.

- *Proximity* helps in sectors where time differences could be an issue, such as outsourcing business-to-customer services. Maghreb countries are in a good position to service Europe (same time zone). Gulf countries are between Europe and Asia, with opportunities to serve both markets, and as a platform for Asian services providers.

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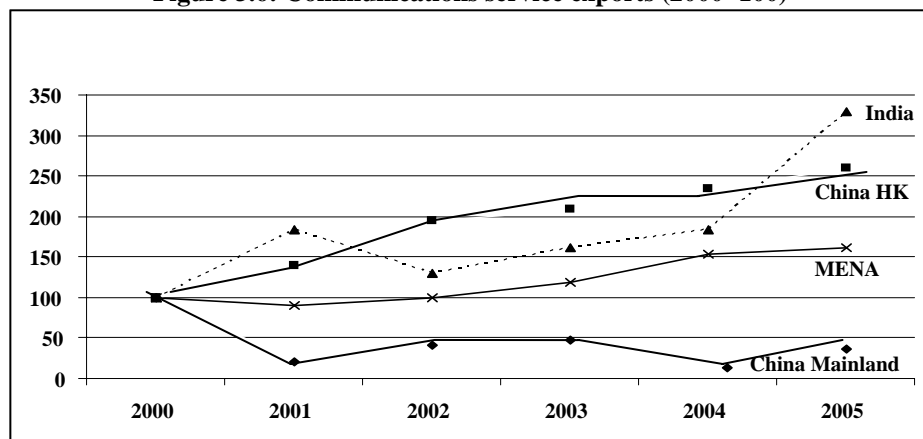
[30] Only three MENA countries report computer service exports in their balance of payments. Differences could also be partially explained by differences in the reporting method for BPO-related exports. While India created a specific category for such activities in its balance of payments, most other countries might include BPO in business services.

3.23   India will confront shortages of skilled workers in the next decade (estimated to 500,000 workers), particularly in the BPO industry. In the Indian off-shoring business, wages and other costs are rising by 10–15 percent a year. In addition, India lacks large number of workers fluent in French, German, Japanese, and Spanish. So, Indian IT/BPO service businesses are likely to seek human resources and eventually subcontract or delocalize some of their activities abroad (offshore platforms). MENA companies specialized in BPO or software could team up with Indian companies to supplement skills (Arabic language) and offer closer proximity to the European, African, and MENA markets. Or, Indian companies could establish a regional base in MENA (FDI and any kind of venture) to ease access to neighboring countries and Europe.

CHINA AND INDIA AS GROWING MARKETS FOR MENA SERVICES

3.24   China is the world's largest importer of services, with over $100 billion of imports, and India the eighth, with over $63 billion of imports. Put differently, China represents a larger share of world services imports than all MENA countries put together. In addition, growth rates of services imports in China and India are much higher than in MENA, suggesting that they are more dynamic markets, with more prospects for MENA service exporters. Finding new trade opportunities thus means looking East.

Making the most of rising merchandise trade flows: MENA as a hub for travel and transport services

3.25   MENA has long been on the major trade roads. But in recent history, trade across the Atlantic has prevailed, leaving the region outside the main theater. With China, a large amount of trade has been diverted from the Atlantic to the Pacific and Middle Eastern routes, restoring MENA's strategic position. Raw materials and agricultural and manufactured goods continue to make up the bulk of trade flows. But service trade often traces trade in goods: investors and traders need legal, accounting, and tax advice, they need to travel and consume local services, and the goods need to be transported, handled, and insured.

3.26   Travel and transport services have recently been flourishing for some MENA countries. They include trade in air and maritime travel and transport services, for both passengers and merchandise, and also extend to such ancillary services as port management, freight forwarding, and handling (figures 3.7 and 3.8). Due to its geographical position, MENA could become a major services hub and trade link between Asia and Europe and Africa.

Figure 3.7: Air transport of passengers, 2000–05 (2000=100)

Source: World Bank, World Development Indicators, 2007.

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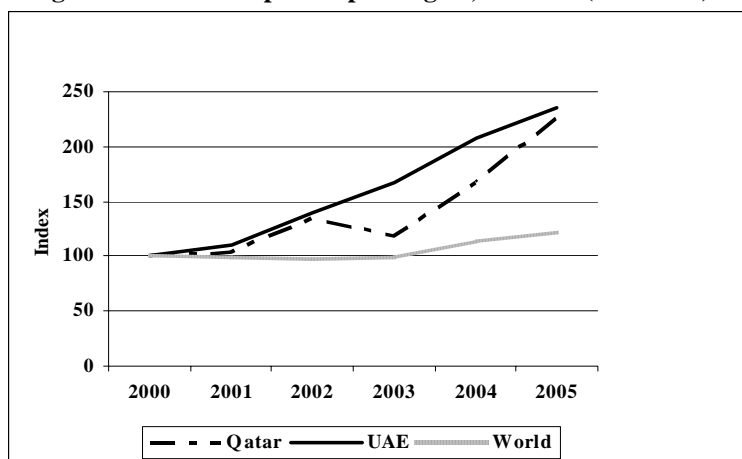
3.27   Emirates and Qatar Airways are among the principal investors in the air sector. Qatar Airways flies one of the youngest fleets in the skies, with 60 aircrafts and orders (or options) for around 90 new Airbuses and 90 new Boeings, a fleet forecasted to more than double by 2015. Dubai airport is now the world's 17th largest airport in terms of cargo traffic, and the largest in the developing world outside China, Hong Kong, Taiwan, and Singapore, with 1.5 million metric tons of freight and mail loaded and unloaded in 2006 (Memphis, in the US, ranks first with 3.6 million metric tons). Among the top cargo airports, it is also the third fastest growing airport in cargo traffic after Shanghai and Beijing.[31]

Figure 3.8: Air freight, 2000–05 (million ton-kilometers)
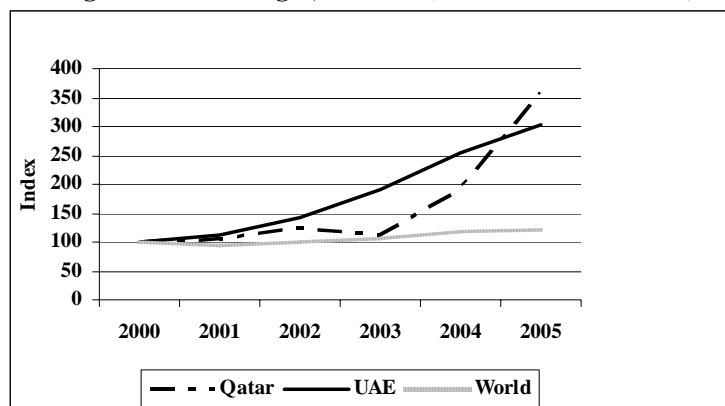
Source: World Bank, World Development Indicators, 2007.

3.28   For maritime transport, the region does not seem to have responded as quickly to the increased demand. In 2005 and 2006, the Asia-Europe route was the fastest growing, suggesting that the MENA region has growing trade opportunities (15.7 percent growth, compared to 12.1 percent for the Asia-US route, and 9.5 percent for the US-Europe route). And with the Panama route saturated, some shipping companies explore alternatives. Shanghai and Shenzhen are now the third and fourth world largest ports in container traffic, with the average annual growth of the 10 largest Chinese ports at close to 35 percent. Growth in container port traffic in main MENA ports stands at only 8.5 percent, with wide disparities

Table 3.2: MENA top container port traffic, 2006

Port	World ranking	Twenty-foot equivalent units ('000)	Over same period previous year (%)
Dubai (UAE)	8	8,923	+17.1
Jeddah (Saudi Arabia)	31	2,964	+4.5
Port Said (Egypt)	35	2,680	+65.3
Salalah (Oman)	40	2,390	-4.1
Khor Fakkan (UAE)	57	1,731	-10.3
Shahid Rajaee (Iran)	69	1,408	+8.9
Dammam (Saudi Arabia)	87	942	+5.3
Damietta (Egypt)	98	841	-25.6
Beirut (Lebanon)	128	595	+28.9
Aden (Yemen)	162	389	+10.7
Alexandria (Egypt)	166	375	+3.4
El Dekheila (Egypt)	171	358	+7.2
Mina Sulman (Bahrain)	229	215	+10.2
Hodeidah (Yemen)	242	186	-2.2

Source: Containerization International database 2007.

(table 3.2). Clearly, geography alone does not guarantee success in transport and logistics.

3.29   Table 3.3 reports the performance of MENA countries in several logistics areas. The UAE is the best performer in the region, ranking 20th in the world. But MENA's performance is generally mediocre, suggesting that reforms are needed if the region wants to harness the benefits of increased manufacturing trade and associated needs for services.

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[31] Airports Council International 2007.

Table 3.3: Logistics Performance Index (LPI), MENA region, 2007

Intern. LPI Rank	Country	LPI	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Domestic logistics costs	Timeliness
20	United Arab Emirates	3.73	3.52	3.80	3.68	3.67	3.61	2.80	4.12
36	Bahrain	3.15	3.40	3.40	3.33	2.75	3.00	2.25	3.00
41	Saudi Arabia	3.02	2.72	2.95	2.93	2.88	3.02	2.76	3.65
44	Kuwait	2.99	2.50	2.83	2.60	3.00	3.33	2.40	3.75
46	Qatar	2.98	2.44	2.63	3.00	3.00	3.17	3.00	3.67
48	Oman	2.92	2.71	2.86	2.57	2.67	2.80	3.25	4.00
52	Jordan	2.89	2.62	2.62	3.08	3.00	2.85	2.92	3.17
60	Tunisia	2.76	2.83	2.83	2.86	2.43	2.83	3.20	2.80
78	Iran, Islamic Rep.	2.51	2.50	2.44	2.59	2.69	2.00	2.93	2.80
94	Morocco	2.38	2.20	2.33	2.75	2.13	2.00	2.38	2.86
97	Egypt, Arab Rep.	2.37	2.08	2.00	2.33	2.38	2.62	2.83	2.85
98	Lebanon	2.37	2.17	2.14	2.50	2.40	2.33	3.40	2.67
112	Yemen, Rep.	2.29	2.18	2.08	2.20	2.22	2.30	2.67	2.78
135	Syrian Arab Republic	2.09	2.17	1.91	2.00	1.80	2.00	2.89	2.67
140	Algeria	2.06	1.60	1.83	2.00	1.92	2.27	3.17	2.82
145	Djibouti	1.94	1.64	1.92	2.00	2.00	1.82	2.80	2.30

Source: World Bank, *Logistics Performance Index*, 2007.

Capturing Chinese and Indian outbound tourism

3.30   Some MENA countries are important tourist destinations. According to the later UNWTO *World Tourism Barometer*, the Middle East had 46 million international tourist arrivals in 2007, one of the tourism success stories of the decade. The region is emerging as a strong destination, with visitor numbers climbing much faster (13 percent) than the world's (6 percent) in 2007 despite the fact that many countries face security issues. Saudi Arabia and Egypt grew by 20 percent each, with more than 8 million tourist arrivals. Syria's visitors grew by 31 percent, Abu Dhabi's by 16 percent. In North Africa, Morocco leads with a 14 percent increase in international tourist arrivals in 2007.[32]

3.31   Chinese outbound tourism is still in its infancy. But it has been growing at more than 20 percent a year over the last decade and has much room to develop (figure 3.9). In 2005 China sent more than 30 million tourists abroad, spending more than $21 billion. According to the World Tourism Organization, the number of Chinese outbound tourists could reach 100 million by 2020, more than 6 percent of world travelers, compared with less than 1 percent today. Asia is the main

Figure 3.9: Projections of personal and business travel, 2008–17 (percent annualized real growth)

Source: UNWTO 2007.

destination for Chinese tourists (90 percent of all outbound departures, including 70 percent for Macau and Hong Kong alone). The share of long haul tourism remains rather small, despite a relaxation of

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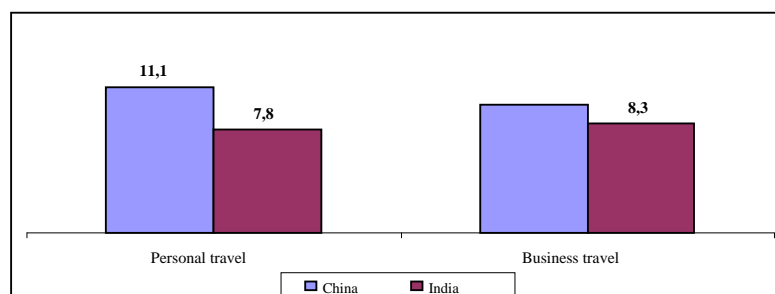
[32] UNWTO, *World Tourism Barometer*, 2008.

traditional controls over outbound travel: easier passport attribution, authorized tourism operators, more flexible currency controls, and an increased number of authorized destinations.

3.32   Countries still need "approved destination status" (ADS) to open a tourist office in China, to market to tourists, and to organize tours of minimum five people including a tour leader. So far, only a few MENA countries have ADS, and if so, very recently: Egypt (2002), Tunisia (2004), and Oman, Morocco, and Syria (2007). So, the effects of the Chinese outbound tourism growth on MENA still do not appear in MENA tourism statistics (2005, the latest available, see table 3.4). All MENA countries could negotiate ADS with China to benefit from Chinese outbound tourism.

Table 3.4: Chinese tourist arrivals in MENA countries, 1995–2005

	1995	2000	2005	Market share 2005 (percent)
Bahrain	n/a	2,383	8,699	0.14
Egypt	5,930	13,779	35,327	0.41
Iran	2,395	n/a	n/a	
Jordan	1,620	5,499	7,202	0.12
Kuwait	2,642	3,435	n/a	
Lebanon	1,019	1,638	1,642	0.14
Libya	827	141	n/a	
Morocco	1,548	1,972	3,513	0.06
Tunisia	n/a	n/a	1,874	0.03

1. n/a means not available
Source: UNWTO, Yearbook of Tourism Statistics, 1997–2007.

3.33   Indian outbound tourism grew at more than 15 percent in the last three years—to more than 1.5 million to MENA countries in 2005, about a fifth of India's outbound tourists. This could be related to the large population of Indian migrants in the GCC. Bahrain, Kuwait, and the UAE were the main destinations taking about 90 percent (figure 3.10). These three destinations represent a 6–7 percent share of Indian outbound tourism each, compared to 10–12 percent for Malaysia and Singapore (first and second major destinations). Egypt is behind, with only 50,000 Indian tourists, less than 1 percent of outbound tourism.

Figure 3.10: Major destinations for Indian outbound tourists, 2005
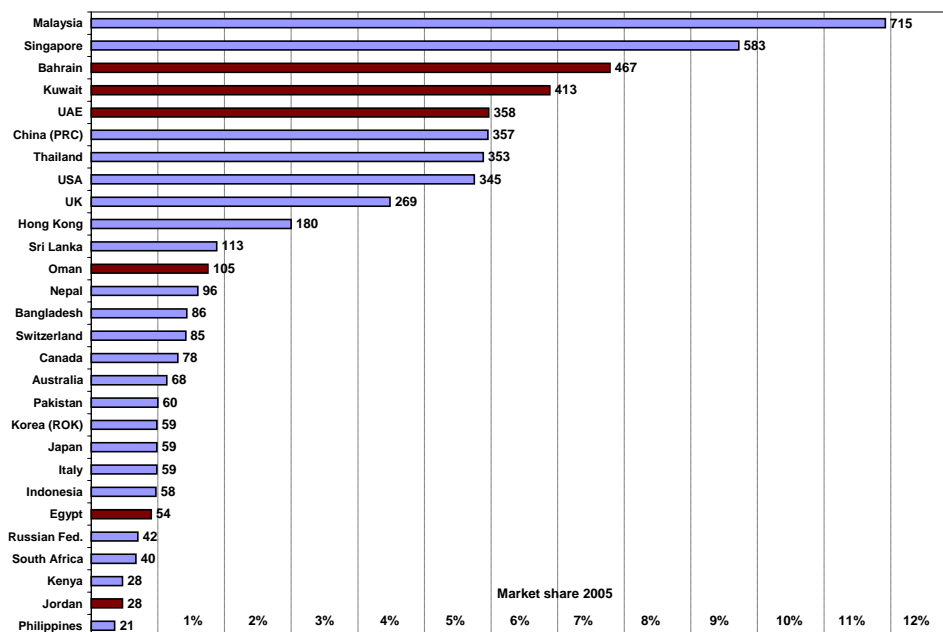
Source: Outbound Tourism Potential From India, Times Research Group, New Delhi, November 2004, and UNWTO, *Yearbook of Tourism Statistics*, different years.

How can MENA countries expand their services trade?

3.34   The analysis in this chapter suggests the importance of maintaining or improving quality. Reputation is a key to success in services trade, and competitiveness could be increased through improved efficiency at equal or higher quality output. MENA countries may need to focus on those segments of services trade where geographical and cultural proximity matters—targeting neighboring markets such as the European Union. This should not prevent MENA countries from diversifying their exports and reducing dependence on Europe, but they should expect more competition from China and India on such more distant markets.

Reinforcing competitiveness: Opening to foreign competition and reforming the sectors

3.35   Barriers to trade in services are not tariffs but policies that discriminate against foreign suppliers (their market access and ability to provide services, how they operate, or the types of products they may offer). The GATS schedules suggest that MENA countries have often made limited commitments to the WTO, with all countries but Oman having made commitments in less than half of the service sectors, and half of MENA having commitments in less than one sector of ten (figures 3.11 and 3.12). For MENA as a whole, mode 2 is the most open (for obvious reasons, one does not want to restrict access of consumers to its market). For service trade, Jordan, Saudi Arabia, and Oman are the most open economies. Tunisia, Malta, and Bahrain are the most restrictive. This ranking, with due caution, could reflect the exposure to competition from China and India on domestic markets. Thus, it appears that the "theoretical" level of exposure is fairly limited.

Figure 3.11: Commitments under mode 1 of the GATS (market access)
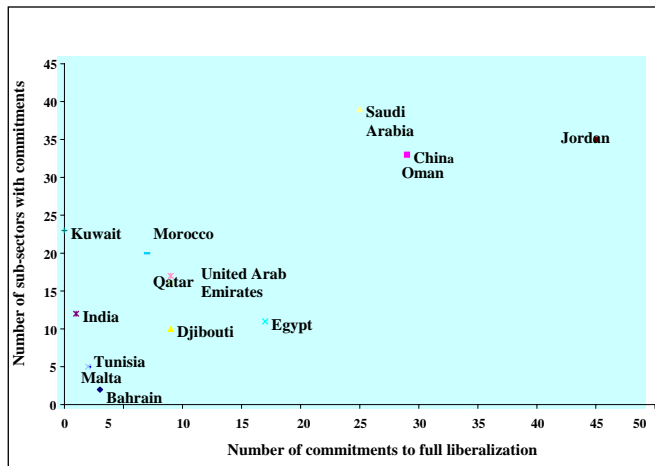
*Source: S*taff calculations, based on WTO schedules of commitments.

Figure 3.12: Commitments under mode 3 of the GATS (market access)
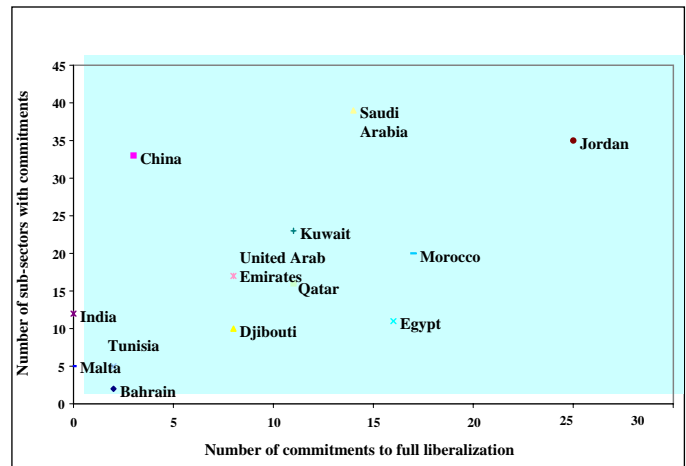
Source: Staff calculations, based on WTO schedules of commitments.

3.36   There does not seem to be a clear link, however, between the degree of openness and the participation of individual countries to bilateral or regional trade agreements with major trading nations, such as the US. This might reveal the limits of the methodology used here: Bahrain appears as one of the least open economies but has a free trade agreement with the US; Jordan already has a free trade agreement (FTA) in force, but Oman and the UAE are still in negotiations. Opening alone is not enough. Other reforms are needed to improve the competiveness of services. Sequencing reforms also matter. Assessing the potential exposure of the different service sectors to international competition and adopting

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nondiscriminatory accompanying measures would help to maximize the benefits of opening and minimize the costs.

Box 3.3: Why failed liberalization can produce disappointing results

Liberalizing services has been a successful path to development for many developing countries, but it has produced disappointing results for others—and could translate into a crisis of access to basic services (such as telecoms or banking) and a diminishing trust in reform. Often such adverse results can be explained by pitfalls in policymaking. Governments and donor organizations behaved as if they had complete faith in the power of the markets. They moved aggressively, but unevenly, to eliminate barriers to entry, sluggishly to develop regulations to deal with market failure, and only notionally to implement access policies.

Access to basic services could be undermined by the following:
- Persistent barriers to competition.
- Weak and inappropriate regulation.
- Missing a meaningful access policy.

This does not mean that governments and donors were naïve and did not appreciate the latter two dimensions. Instead, they did what they could do quickly and fairly easily: privatize and allow entry in some sectors. Sometimes, ironically, only liberalization was limited in precisely the sectors where outcomes could have been successful even without progress in the other two dimensions of reform. Barriers were completely eliminated in sectors where successful outcomes depended critically on complementary reforms. Implementing comprehensive regulatory improvements could be slow and difficult, and the appropriate form of access policies is still not well understood or implemented outside a few sectors.

Source: Mattoo and Payton 2007, pp. 16–19.

Reinforcing trade links and preserving preferential access with traditional target markets

3.37   Opening could be unilateral—but it could also be traded for further access to foreign markets. Three levels of trade negotiation instruments exist:

- *Bilateral* (mutual recognition agreements, fast-track procedures for visas, bilateral treaties on investment, social security, air transport, taxes).
- *Regional* (harmonization or mutual recognition of diplomas and qualifications, freedom of establishment, harmonization of rules, norms and standards).
- *Multilateral* (WTO).

3.38   All three ways could be pursued in traditional markets, such as the EU. While multilateral negotiations would also benefit China and India, the request-offer process at the WTO is mostly bilateral. MENA countries thus have a strong interest in participating in the Doha round, so that their requests for opening sectors of comparative advantage prevail over those by China and India.

3.39   Regional cooperation could be a major component of global trade in services strategy. Anecdotal evidence suggests that, for some professions, the export of services under modes 3 and 4 was easier to Europe than to other neighboring countries in MENA (main barriers invoked were the currency exchange controls and obstacles to the movement of physical persons). The success of Kuwait in telecoms perfectly illustrates the potential of an export strategy driven by regional demand. In medical tourism, the agreement between Libya and Tunisia on the reimbursement for treatments received in the other country contributed to competitive health services in Tunisia. Libya still represents 80 percent of Tunisia's health tourism income.

3.40   Given the constraints affecting MENA competitiveness in services, there is a strong case for further regional trade integration in services.[33] For example, exports of professional services are constrained by the small size of firms. Major global law firms often serve their clients in MENA through their offices in Europe, primarily due to the high segmentation of the MENA market. Harmonizing certain standards and regulatory requirements could help regional firms reach a critical size for exports.

3.41   MENA countries have signed trade agreements among themselves and with third countries, sometimes as a group (GCC). These agreements vary in scope and ambit. Provisions on trade in services are often nonexistent or minimal (a commitment to further cooperation in certain services sectors). And because of restrictions in the movement of people and capital, MENA service providers find it difficult to operate across countries. With regional trade agreements proliferating in the world, and services and investment provisions becoming more sophisticated, MENA countries could revise the level of cooperation in services in the region and with major trading partners.

Negotiating with China and India?

3.42   Access to service markets in India and China remains difficult, as suggested by their low level of commitments in the GATS—particularly for India's. China has made further concessions in the course of its WTO accession and appears more open than most MENA countries—particularly for the sectoral coverage of its commitments, except under mode 3. China has made commitments in 33 of 55 possible service subsectors, India in only 12. Again, the level of commitment does not necessarily reflect the real openness of the economies, but it sends a strong signal to investors and reflects some predictability and security of transactions.

3.43   From an economic perspective, the closer the economies, the more the gains to be expected from free trade agreements. This suggests that MENA countries have more to gain from South-South trade agreements than North-South agreements—although a size effect may alter the results. This also suggests that adjustment costs could be higher: for example, a full liberalization of labor services would less likely result in massive flows of workers out of Europe to MENA than from India or China to MENA. So, it is unclear what the balance of costs and benefits would be for MENA. Some countries already have bilateral trade agreements with either China or India to bind GATS+ commitments along with broader access for merchandise trade. But India has not yet made significant bilateral concessions on trade in services (India-Singapore, among more than 30 agreements, is the only Indian FTA with attached schedules of concessions for services).

3.44   China is also moving into FTAs, mostly in the Asia-Pacific region. Discussions are under way with Australia, New Zealand, Pakistan, Chile, the Southern Africa Customs Union, and the GCC. China is also trying to open discussions with Brazil, Iceland, India, Japan, and South Korea. Beside special agreements with Hong Kong and Macau, the first harvest included a partial trade agreement with Thailand, and an agreement with ASEAN, which completed negotiations on trade in services with China in January 2007 and signed an agreement that entered into force in July 2007. This kind of agreement may affect MENA service exporters' position in both Chinese and ASEAN markets, given that the trade agreement's partners have preferential access to each other's markets.

3.45   So, there is a strong incentive to negotiate subsequent agreements on services with China or India to preserve market shares, to reinforce the security and predictability of services trade transactions, and to gain broader access to markets, the "domino effect" of FTAs. The question remains, however, whether it

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[33] Recent research suggests that gains from regional economic integration would be greatest in the area of services. And in fact liberalizing merchandise trade, without complementary reforms in the area of services, would bring about only marginal gains. The income gains from a reduction in the protection to services are estimated to be multiples of those from liberalizing trade goods.

is in the interest of MENA countries to allow broader access to their markets to Chinese and Indian service providers. This would depend on the type of commitments on both sides—and on careful analysis of the costs and benefits of bilateral opening.

CONCLUSIONS

3.46   China and India are major players in trade in services, ranking 3rd and 5th respectively as world exporters. Their services exports have grown at a faster pace than those in MENA. Overall, MENA countries remain small players on the world services trade scene, although a few—Morocco, Egypt, Lebanon, and Tunisia—rank among the 30 largest net exporters of services in the world. Evidence suggests that MENA service providers perform better, compared to their Chinese or Indian competitors, in market segments where quality matters most. The region is also emerging as a strong tourist destination, with Saudi Arabia and Egypt among the leading destinations in 2007. MENA countries maintain a number of behind-the-border barriers to trade in services—and are minimally exposed to foreign competition (including from India and China). They have made limited commitments to the WTO in less than half of the services sectors.

3.47   Looking at the future, MENA countries should give priority to maintaining or improving the quality of services. Reputation is a key to success in services trade, and competitiveness could be increased through improved efficiency at equal or higher quality output. MENA countries may need to focus on segments of services trade where geographical and cultural proximity matters—targeting neighboring markets such as the European Union. This should not prevent MENA countries from diversifying their exports and reducing dependence on Europe. Opening alone is not enough. Assessing the potential exposure of the different service sectors to international competition and adopting nondiscriminatory accompanying measures would help to maximize the benefits of opening and minimize the costs.

3.48   Further expanding the tourism industry is possible, but issues of security (such as in Yemen, Egypt, Lebanon, and Iraq) and cultural acceptance remain. Maritime, air, and road transportation have the potential to become leading sectors if the necessary reforms are undertaken. Outsourcing, particularly in the Maghreb countries, could also become an important industry. MENA companies could team with Indian companies to supplement skills (Arabic language) and offer closer proximity to the European, African, and MENA markets. Or Indian companies could establish a regional base in MENA (FDI and any kind of venture) to ease access to neighboring countries and Europe. Education and health care services are emerging industries in the Gulf and in Tunisia and can potentially become viable alternatives to services currently sought abroad. For all services sustaining competitiveness requires further investment in the skills of the labor force and adjustment of education curricula to focus on disciplines that meet client needs.

3.49   MENA should anticipate an increasing demand for services from China and India where those countries will face skill shortages or booming domestic demand. There is a strong incentive to negotiate agreements with China and India to preserve market shares, to reinforce the security and predictability of services trade transactions, and to gain broader access to markets. The question remains, however, whether it is in the interest of MENA countries to allow broader access to their markets to Chinese and Indian services providers. The answer depends on the type of commitments on both sides—and on careful analysis of the costs and benefits of bilateral opening.

CHAPTER 4.   MENA'S INVESTMENT LINKS WITH CHINA AND INDIA

MENA countries are attracting more world FDI, fueled by intraregional foreign investment from the oil-rich countries and by investment from other emerging markets, with China and India progressively becoming more significant. And thanks to unprecedented current account surpluses, Gulf countries are investing billions abroad, seeking investments in alternative markets and currencies and looking more toward the East. Two-way investment between MENA and China and India shows the increasing importance of MENA oil-producing countries as international investors and suppliers of capital, including to China and India. China and India are investing more in MENA, particularly in oil-producing countries. But they are contributing very little to job creation or to the transfer and diffusion of technology.

MENA, CHINA, AND INDIA AS RECIPIENTS OF GLOBAL CAPITAL FLOWS

4.1   Capital flows to developing countries[34] reached a record $647 billion in 2006, with equity accounting for almost three-quarters. China alone received more than 20 percent of the total FDI inflows, with inflows of nearly $80 billion, and ranked among the world's top three recipients. India, at only 5 percent, attracted a much smaller share of FDI[35] but this share is increasing fast, thanks to rising investor confidence. Important improvements to the country's business environment allowed it to be considered, together with China, as one of the two most attractive global business locations by transnational companies in UNCTAD's World Investment Prospects Survey 2007–09. Portfolio investment surged in both China and India, reflecting greater confidence from international investors.[36] Four of the 10 largest initial public offerings (IPO) in 2006 were by Chinese companies, increasing China's share of portfolio equity flows to developing countries from 30 percent to 35 percent.

FDI flows to MENA rose considerably but are concentrated in a few countries and sectors

4.2   The MENA region experienced a sharp increase in FDI flows to a record $51.6 billion in 2006, accounting for 4.7 percent of world FDI, up from an average of only 1.8 percent in 2000–04. This astonishing growth in FDI is a reflection of the ample oil-generated foreign currency liquidity, combined with an improved business environment, cross-border mergers and acquisitions and increased outward orientation. Intraregional foreign investments from oil-exporting Gulf countries (notably Saudi Arabia and the United Arab Emirates) in energy, infrastructure, real estate, and tourism dominated but China and India played a progressively more significant role. Private equity firms were also prominent. In GCC countries, private equity rose to $10 billion in 2006, almost twice the amount of the previous year, and it is estimated at around $27 billion for 2007, the bulk in the resource-rich countries and in energy.

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[34]The definition "developing countries" or "developing economies" refers to the sum of the six regions of the world that include low- and middle-income countries: Latin America and the Caribbean (LAC), East Europe and Central Asia (ECA), Middle East and North Africa (MENA), Sub-Saharan Africa, East Asia, and Pacific and South Asia. Capital flows represent the sum of private and official flows. Among private flows (debt + equity), the analysis here looks at equity flows—FDI and portfolio equity. Net capital flows are the sum of inflows minus outflows.

[35] UNCTAD has benchmarked India as an "under-performer" for FDI attraction in its *Inward FDI Index*.

[36] In 2006 China received about $43 million of net portfolio flows, up from $6.9 billion in 2000. India received $9.5 billion in 2006, up from $2.3 billion.

4.3 FDI flows to the region are concentrated in few countries: Saudi Arabia, Egypt, UAE, Tunisia, Bahrain, and Morocco. The bulk of the region's FDI is directed to petroleum-related and other natural resource activities. But Bahrain, Egypt, Morocco, Tunisia, and Lebanon have also attracted FDI to tourism, banking, telecommunications, manufacturing, and construction, partly through cross-border mergers and acquisitions. FDI averaged 17 percent of gross fixed investment in 2006 (more than

Table 4.1: Foreign direct investment in MENA

	1996 –99	2000 –03	2004	2005	2006
Share of gross fixed investment					
MENA (excluding Iraq)	4.3	4.3	4.5	7.2	17.0
GCC countries	3.5	2.7	4.2	4.4	14.7
Maghreb	4.5	6.8	5.2	9.7	12.8
Percentage of GDP					
MENA (excluding Iraq)	1.0	0.9	0.9	1.5	3.8
GCC countries	0.8	0.5	0.8	0.8	3.1
Maghreb	1.1	1.5	1.2	2.1	3.4

a. Estimates revised in May 2008
Source: MENA Economic Development Prospects 2007 and 2008.

four times the average share for 2000–03) and 3.8 percent of GDP (table 4.1). The trend has continued in 2007.

MENA, CHINA, AND INDIA AS INTERNATIONAL INVESTORS

4.4 Developing countries have become net exporters of capital in recent years and their outflows have closely matched the external financing gap of the advanced countries. Capital flows are channeled primarily through central bank reserves and sovereign wealth funds, mainly those of oil exporters in the MENA region. FDI has also been an important channel through which MENA countries invested capital overseas.

Gulf countries are looking toward the East

4.5 MENA's outward FDI made up 8 percent of all FDI outflows from developing countries in 2006 (up from 1 percent in 2000). Investments from resource-rich countries— with unprecedented current account surpluses— represented the major part of the investment from the region.[37] Kuwait and the UAE are the leading international investors (figure 4.1). Flows from

Figure 4.1: FDI outflows in MENA: Top five countries (US$ million)
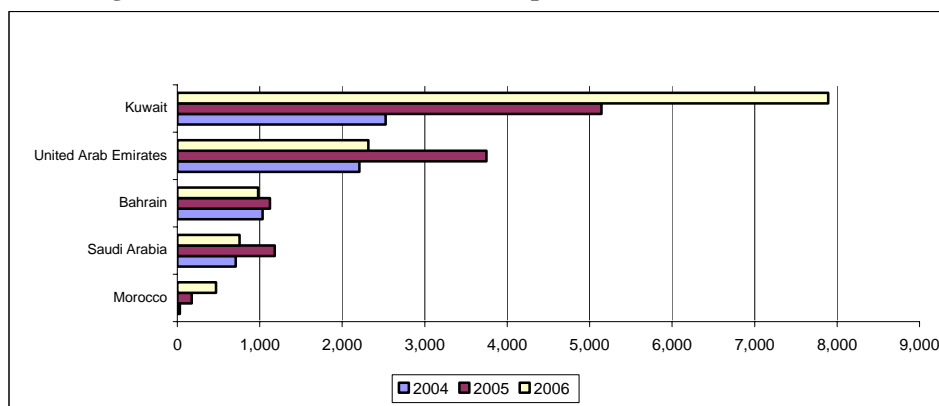
Source: UNCTAD World Investment Report 2007.

other countries, such as Morocco, are also becoming important. If FDI flows are sizable, the stock of foreign assets[38] owned by MENA oil countries is astonishing.[39] Considering that Gulf countries have

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[37] Their share in 2006 is more than 90 percent of the total, up from 50 percent in 2000.

[38] Foreign assets (or international investment positions) are defined as "mainly financial claims over non-resident institutional units" by OECD.

[39] Determining the true size of GCC foreign assets is difficult because of the lack of comprehensive official data. Only four of the GCC countries publish incomplete information with the IMF's International Financial Statistics. A 2007 study by the Institute of International Finance (IIF) —based on IMF Balance of Payment data and several other sources —conservatively estimates the accumulated foreign assets of the GCC states at the end of 2006 at $1.6 trillion, or 225 percent of GDP, slightly more than China

invested an estimated 80 percent of their foreign assets offshore in 2006, it is not surprising that they are becoming an important source of capital for the rest of the world. Capital outflows from GCC countries were in fact estimated at $540 billion for 2002–06. The same estimates suggest that the influence of capital flows from GCC countries, as other oil exporters, will continue to be substantial, if current projections of high oil prices are maintained.[40]

4.6   The United States is still the main destination of GCC capital, followed by the EU (figure 4.2).[41] But Asia is becoming a more important destination: in the past five years GCC countries have invested 11 percent of total capital outflows in Asia. This has been driven in part by an extended period of low interest rates and low yields on US and European assets. That has made emerging market assets more attractive for investors globally and led Gulf investors to invest more heavily in domestic equities—as stock markets in the region have risen strongly—and to look more closely at Asia as an investment destination.

Figure 4.2: GCC estimated geographical distribution of capital outflows, 2002–06
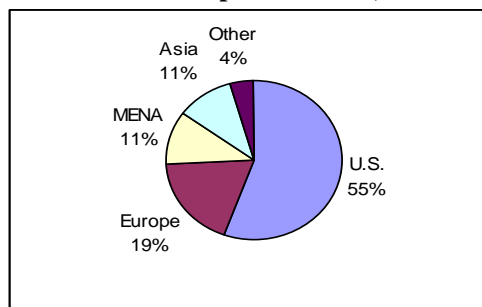
Source: Institute for International Finance 2007, McKinsey 2007.

4.7   GCC countries have traditionally preferred portfolio investments to FDI, a reflection of the lack of manufacturing and industrial activity and expertise. This tendency has increased in recent years (figure 4.3). GCC countries have become increasingly more sophisticated in managing their reserves and in establishing large-scale sovereign wealth funds.

4.8   Net portfolio outflows are estimated[42] to be around $80 billion in 2006 (from almost zero during the early 1990s). Private and institutional Gulf investors are making "strategic" investment in Asia by holding a diversified portfolio of assets, emphasizing equity and equity-like

Figure 4.3: GCC net flows of portfolio greatly exceed net direct investment
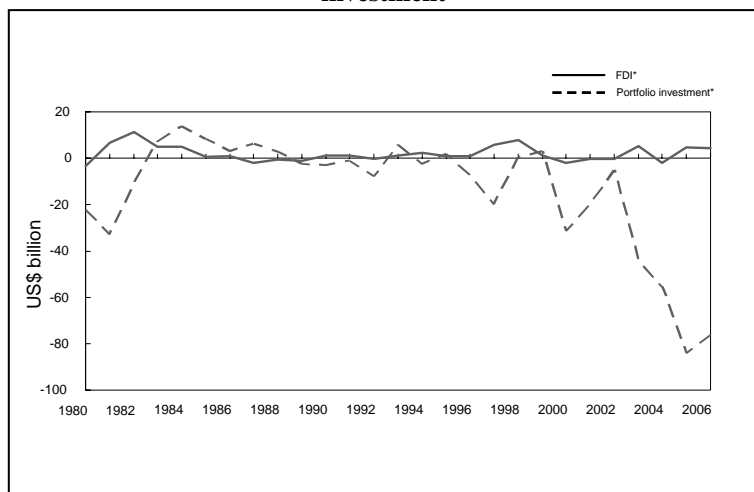
*Negative numbers indicate a net outflow
Sources: Economist Intelligence Unit, staff calculations.

investments. Nonoil-producing countries, by contrast, appear to invest more in FDI to complement their trade interests with the Asian countries. FDI remains a smaller share of GCC capital outflows in oil and oil-related sectors, infrastructures, tourism, and real estate.

($1.1 trillion) and Russia ($355 billion) combined. Corresponding estimates from the McKinsey Global Institute are around $1.6-$2.0 trillion. In addition, the rest of the resource-rich countries (with exclusion of Iraq) hold about $330 billion in foreign assets.
[40] The McKinsey Global Institute published the results of its research on global energy demand. For the base case scenario of oil at $50 a barrel in 2006–12, the estimated total capital outflows from oil-exporting countries would reach $387 billion a year through 2012. The high case scenario of $70 a barrel suggests capital outflows as high as $628 billion a year through 2012. But even in the low case scenario of only $30 a barrel, the oil-exporting countries will have as much as $147 billion to invest each year to 2012. In all these alternative scenarios, the resulting amount of capital estimated to belong to GCC is considered to be an extraordinary infusion of capital into global financial markets, at a rate (for the base case) of more than $1 billion a day.
[41] As estimated by IIF 2007.
[42] The Economist 2007b.

Diversification appears to be a key driver of the GCC's recent behavior in capital markets

4.9   In the early 2000s GCC countries started to diversify away from US assets, partly because of political events in and after 2001, and partly because of financial considerations. While flows to the US have returned massively, the GCC are investing proportionally less in treasury bills, the safest type of investment available, and moving toward other types of government (or corporate) securities (table 4.2). This is a sign of a different strategy in managing oil surpluses with respect to past oil booms and a signal of their search for higher (expected) returns on investment. Further, they are seeking alternative markets and currencies. A report from the Economist Intelligence Unit that analyzes the rise of Gulf investment in Asia, argues how this aggressive and diversified strategy of Gulf investors coincided with the rise of China and India and their increasing integration into the global economy.

China and India are also diversifying their investment abroad

4.10   China and India hold huge foreign reserves, representing 70–80 percent of their total foreign assets holdings. China is by far the largest holder of foreign reserve assets in Asia,[43] and India's central bank is among the 10 largest foreign reserve holders in the world. As argued by Lane and Schmukler (2007), this rapid pace of reserve accumulation, well beyond a precautionary level, is costly.[44] China has started to invest some excess reserves into a more diversified portfolio of international financial assets

Table 4.2: Capital outflows from MENA oil-exporting countries, 2000-06 (US$ million)							
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
US long-term securities	*14,713*	*4,991*	*-2,926*	*-2,752*	*20,228*	*6,684*	*24,225*
US treasury bills	3,482	865	-3,880	-6,645	*9,041*	2,063	4,548
US government bonds	477	1,151	1,959	1,472	4,353	1,810	7,037
US corporate bonds	1,565	1,186	304	1,809	349	1,022	4,666
Outward FDI							
United States[a]			1,138	393	713	1,508	10,271
Europe	152		833	133	-7,780	-213	
China	41		50	76	107	109	
India	5		20	24	57	50	184

Source: Bureau of Economic Analysis, China Ministry of Commerce, Mofcom and India Ministry of Industry and Trade (millions of dollars.)
Note: Net purchases (+) of U.S. long-term securities by MENA oil-exporting countries.
a. From Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and UAE. Data on FDI include Israel.

and is slowly liberalizing its capital account regulations. As with GCC countries, China, India, and Asian central banks are diversifying their investments from mostly U.S. treasury bills into other U.S. government securities—a sign that investors are searching for higher yields. More important, China's government is starting to shift a part of its reserve assets to sovereign wealth funds, similar to those in oil-exporting nations. An example of China's new investment approach is the creation in 2007 of China Investment Corporation (CIC), with $200 billion of assets under management and a target of investing in more than 50 large enterprises around the world.[45] As all sovereign wealth funds, CIC can take more risk in the search for higher returns.

4.11   Despite its success in attracting FDI since the early 1990s, China has only recently emerged as an international investor,[46] starting to encourage its national firms to "go global" only in 2002. By the end of 2006, more than 5,000 domestic Chinese investment entities had established nearly 10,000 overseas

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[43] China's central bank alone had $1.1 trillion in reserves at the end of 2006, equivalent to 80 percent of the assets of all 7,000 hedge funds around the world (McKinsey Global Institute (2007).
[44] For a discussion on the costs of reserve accumulations please refer to Lane and Schmukler (2007).
[45] CIC officially began operating in September 2007.
[46] Starting from nearly zero in the early 1980s, Chinese outward FDI exceeded $6 billion in 2006.

directed invested enterprises in most countries around the world.[47] India has been investing abroad since the 1970s. Until the 1990s outward investments by Indian companies were driven by India's political will to improve "south-south" cooperation and by the need to promote Indian exports in the form of Indian-made machinery, raw materials, know-how, and consultancy. In the 1990s a more favorable, private-sector-oriented approach emerged, and outward FDI started to be much more linked to the export success of Indian multinationals.

MENA AS INVESTOR IN CHINA AND INDIA

4.12 In 2005, China received 0.2 percent of its FDI inflows from MENA, India around 1.5 percent.[48] But these flows have been growing since 1999, particularly those from GCC countries, a sign of growing interest of the MENA oil-exporting countries in Asia. The top five MENA investors in China are the UAE, Saudi Arabia, Jordan, Lebanon, and Egypt (figure 4.4). The UAE accounts for more than 60 percent of the registered nonfinancial flows to China. Jordan, Egypt, Lebanon, and Morocco have steadily increased their financial investment over the last 10 years, even though the amounts are very small.

Figure 4.4: Top five MENA investors in China (percentage of MENA FDI flows to China)
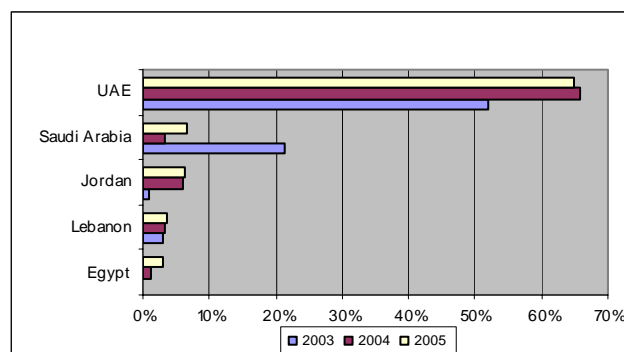
Source: Ministry of Commerce of the People's Republic of China.

What determines MENA's investment in China?

4.13 To identify the determinants of MENA's FDI outflows to China, we estimated a country fixed effect model.[49] The dominant factors explaining FDI positions over time are bilateral investment agreements (when in force), trade openness, bilateral trade, and income growth (table 4.3). China's characteristics also account for part of the variation of MENA FDI outflows. Trade openness and market

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[47] The accumulated outward FDI stock volume stood at $91 billion, with non-finance FDI accounting for 83 percent of it. See Chinese Statistical Bulletin 2007.

[48] India Department of Industrial Policy and Promotion, 2007.

[49] The adopted equation is: $\log(Fdi)_{it} = \beta_1 X_{it} + \beta_2 Z_t + \alpha_i + \varepsilon_{it}$ where index i indicates the origin country (all MENA countries except Israel and Malta) and t the year in the interval going from l996 to 2005. The matrix X_{it} includes explanatory variables. Source country characteristics include the log of GDP to control for country size, log of GDP per capita to control for income level, an index capturing the degree of capital control restrictions which goes from 0 to 13 (very restricted country), the share of imports and exports over GDP to control for trade openness, the log of market capitalization to control for the size of domestic financial sector, and an institutional quality index. As bilateral factors we include a dummy variable equal to one if a bilateral investment agreement has been either signed or entered in force with China and the log of energy (gas + oil) exports from a specific MENA country to China to see whether there is a correlation between bilateral FDI and bilateral trade. But when we include this variable, the underlying sample represents prevalently resource rich countries and the sample size drops considerably. Regressions not reported here show that bilateral energy trade is significant with a negative sign: it does not drive bilateral investment, but it is an important factor in the sense that the bigger energy exporters are not the ones investing more in China. This result is consistent with the negative sign on GDP per capita suggesting that among MENA countries the resource poor (which have also lower GDP per capita) are those investing more in China. The matrix Z_t contains the host country characteristics that could make China attractive as a destination country like the size of domestic financial market (market capitalization), the degree of trade openness, the GDP growth, and the index of capital control restrictions to measure how much policy factors on international finance affect bilateral FDI flows. The country fixed effects α_i account for all unobservable country-specific factors that don't vary over time interval considered (like culture, religion, physical proximity, and common legal origin).

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potential are positive and significant variables. China's restrictions on capital have little (or no) importance in deterring investment. This is consistent with the hypothesis that FDI to China is motivated not by the need for capital injection,[50] but by the desire to participate in international networks.

4.14   MENA investors are driven to China mostly by the attractiveness of a large market and the low cost of production, as well as availability of labor and infrastructure. Bilateral investment agreements have the expected positive sign and are significant: they signal the attractiveness of the local market. It also appears that MENA's nonoil-producing countries invest proportionally more than oil-exporting countries.[51] Market capitalization has a positive sign indicating that countries with large domestic financial markets have a larger need to diversify assets holdings overseas.

Table 4.3: FDI outflows to China—estimation results

	(1)	(2)	(3)	(4)	(5)
Bilateral investment agreement with China (=1 if it is in force)	2.16 *(1.74)*	1.91** *(2.32)*	2.66* *(2.29)*	1.98 *(1.85)*	0.38 *(0.46)*
Log of GDP, US$ in current prices	–4.77*** *(–4.66)*	–3.04* *(–2.09)*	–5.25*** *(–4.78)*	–3.74** *(–2.71)*	–1.46 *(–0.98)*
Log of GDP per capita, US$ in current prices	–2.94 *(–0.70)*	–10.16* *(–2.26)*	–2.39 *(–0.81)*	–8.76 *(–1.19)*	–10.74* *(–2.15)*
Log market capitalization	1.56*** *(3.97)*	0.44 *(1.41)*	1.88*** *(4.68)*	0.91* *(2.01)*	
Total exports + total imports / GDP					4.77** *(2.89)*
Restrictions index	0.10 *(0.30)*	0.12 *(0.40)*	0.12 *(0.39)*	0.12 *(0.43)*	–0.16 *(–0.53)*
Log market capitalization of China	2.33* *(1.94)*				
China total exports + total imports to GDP		16.24** *(2.67)*			12.35* *(2.10)*
Restrictions index of China			2.13** *(3.06)*		
China GDP per capita at constant prices				8.40* *(1.55)*	
R2	0.52	0.52	0.55	0.51	0.51
Adjusted R2	0.38	0.37	0.41	0.36	0.35

Note: Figures in parentheses are t-statistics. Regressions include a constant term.
Significance of *** 0.01; ** 0.05; * 0.1.
Source: Staff calculations.

4.15   We do not have sectoral disaggregations of data on FDI, only anecdotal evidence, so it is very difficult to link our findings to specific sectors or to the type of global production network. Survey data on greenfield FDI from MENA countries to China and India during 2003–07, indicate that participating in industrial clusters and domestic market growth potential were the main motives behind their investment (table 4.4). The reliance on industry clusters leads to the hypothesis that FDI between MENA and China mostly complements trade patterns and that the investment is mostly in export-oriented sectors.

Table 4.4: Why MENA countries invest in China and India (percent)

Industry cluster/critical mass	33
Domestic market growth potential	28
Lower costs	11
Presence of supplies or joint venture partners	11
Proximity to markets or customers	11
Technology or innovation	6

Source: Staff calculations based on OCO Monitor data.

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[50] China has a high saving rate of almost 40 percent of GDP.
[51] The coefficient for GDP per capita is instead positive when we run the same regression to explain investment in a developed market, such as the United States. The size of the host country's financial market is also important in this case. This confirms the idea that the GCC countries are investing more strategically in the US, also when the investment is direct (FDI).

Where are MENA countries investing?

4.16   GCC countries are investing heavily in petrochemicals in China. Although China is the second largest producer of basic petrochemicals outside the US, Western Europe, and Japan, its rapid economic growth has outpaced its ability to produce enough basic petrochemicals. This is a big opportunity for foreign investors, and GCC countries are heavily engaged. The Chinese government allows foreign companies to be majority owners of most types of petrochemical companies,[52] an attractive feature for foreign investors. Added to this is the opportunity to deal directly with the two vertically integrated public enterprises created by the restructuring of the petrochemical industry in 1998: Sinopec and CNPC. The two companies are authorized to operate with foreign companies seeking partnerships with Chinese enterprises, allowing for fewer bureaucratic hurdles. China's desire to upgrade its chemical industry to world standards requires large capital investment, and this matches the profile of GCC investors. MENA's interests in India's downstream industry have also multiplied in recent years.[53]

4.17   GCC investors have also targeted strategic activities, particularly in services, banks, ICTs, and real estate.[54] In China the Kuwait Investment Authority applied in 2007 for the IPO of China's biggest mainland bank, the Industrial and Commercial Bank of China. GCC countries are using a diversified range of instruments to invest in China, including preferential credit. Saudi Arabia is one of the 18 foreign governments that provide concessional loans to China through Exim Bank China in key sectors. It is also stepping up efforts to forge closer business and cultural exchanges with both China and India. And it has had discussions to share technology through academic institutions in India (Indian Institute of Technology) and forge a longer term commitment between the two countries.

CHINA AND INDIA AS INVESTORS IN MENA

4.18   MENA attracts 2 percent of Chinese outward FDI, mostly to the oil-rich countries (figure 4.5).[55] MENA has attracted about 5 percent of Indian cumulative FDI flows since 2000 (figures 4.6 and 4.7). The energy sector is the main recipient, and oil-rich countries are the main destinations. Before 2000 developing countries were the main hosts of Indian FDI outflows, accounting for almost three-quarters of the cumulative flows from 1995 to 2000. Since then the percentage has decreased to less than 50 percent, reflecting a change in the investment strategies and

Figure 4.5: Cumulative FDI flows from China to MENA countries, 2003–06
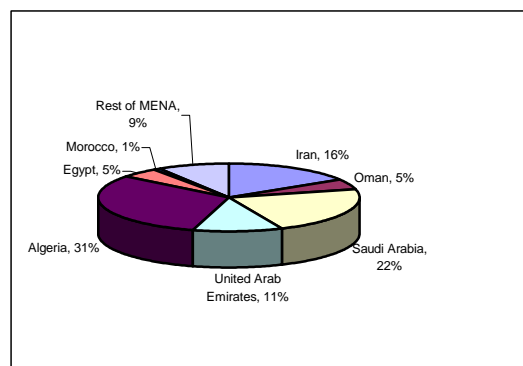
Source: China Statistical Bulletin 2007.

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[52] The exception is ethylene complexes, of which foreign investors can own no more than 50 percent.

[53] Examples of MENA's recent investment in petrochemicals in China and India and in the oil downstream industry include: a) In July 2005, a new, $3.6 billion 160,000 barrels a day refinery and petrochemical plant complex was inaugurated in Fujian, China. The facility is a joint venture between Sinopec (50 percent), ExxonMobil (25 percent), and Saudi Aramco (25 percent). In 2007 China agreed to allow Aramco to open and manage 600 gas stations in Fujian; b) In 2007 Aramco was negotiating the construction of secondary refinery in Qingdao. The Qingdao plant is expected to handle high-sulphur ("sour") crude oil, given the dearth of such capacity worldwide; c) China has signed several deals for concessions to explore for and produce natural gas with Kuwait Petroleum Corporation; d) Gulf Finance House of Bahrain will be investing $650 million in completing the 2008 Energy City project in China. Examples of MENA's interests in India's downstream energy sector are as follows: a) State owned Indian Oil Corporation and Saudi Aramco are to build a new 6 million ton a year oil refinery in Punjab, India, as part of a venture that would eventually cost $2 billion. They have agreed to invest $125 million each as equity; b) Indian Oil Corporation and Aramco are partnering in a refining project in Orissa, with a building cost of $5.6 billion, to be online in 2011.60; c) In 2007 Gulf Finance House launched the Energy City project in India with an equity placement of $635 million. See Lee and Shalmon 2007.

[54] Global Investment House concluded in two investments in real estate in December 2007 in China and India, to develop both residential and retail space. In China it entered a joint venture with a Chinese real estate development and construction company.

[55] Chinese outward netflows FDI reached almost $18 billion in 2006, up 44 percent from the previous year. But more than four-fifths of these flows go through third countries, such as Hong Kong and Cayman Islands, complicating the interpretation of destinations.

competitive advantages of firms, which became more oriented toward developed markets to gain access to new skills, technologies, and marketing capabilities.

Figure 4.6: Cumulative FDI flows from India by world regions, 2000–06
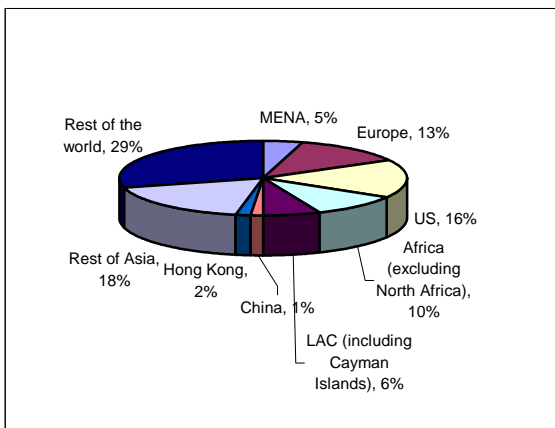
Source: Investment Division, Department of Economic Affairs, Ministry of Finance, India.

Figure 4.7: Cumulative FDI flows from India by destination country in MENA, 2000–06
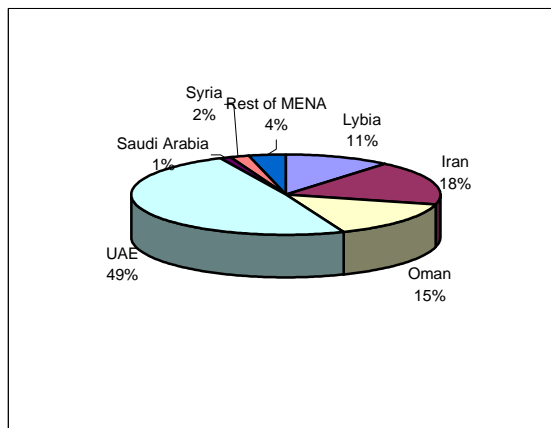
Source: Investment Division, Department of Economic Affairs, Ministry of Finance, India.

China and India investment strategy in MENA: energy and downstream industry

4.19   Globally, China's interest in investing in the oil sector goes back to the early 1990s. The first outward FDI for China in the oil sector took place in 1992 when China National Petroleum Company took part in developing the North Twing Oilfield in Canada. These first investments were small low-risk projects such as rehabilitation of oil fields, field-development and provision of services. With time, China's investment has expanded to cover exploration as well as refining and building of infrastructure. In 1998, the Chinese government reorganized the three state owned oil companies—CNPC, Sinopec and CNOOC—into vertically integrated firms. Before the reorganization CNPC and Sinopec had been focusing on exploration and refining and distribution respectively. The purpose of the reorganization was to make the structure of China's main oil companies vertically integrated, and more competitive. Since then, the China's global search for oil has widened and now includes investments in more than 25 countries around the world. By 2004 the three Chinese oil companies had concluded 61 projects, and 41 of these projects were made by CNPC that has by far been the largest investor.

4.20   India's Government is pursuing a strategy of bilateral engagements with energy producing countries to benefit from each others strengths in areas of technology transfers, R&D, safety and training, as well as multilateral engagements such as the Asian Round Tables, International Energy Forum etc. Recently India has signed a memorandum of understanding with China for joint bidding of hydrocarbon blocks. The third India-GCC Business Conference in 2007 saw the adoption of the Mumbai Declaration to enhance economic engagement between the two sides in a number of areas, including energy (oil, gas, and power).

4.21   While increasing, FDI from China and India remain limited because most countries in MENA restrict foreign ownership. The petroleum sector in oil-exporting countries is dominated by national oil companies, and foreign investments in oil exploration and production are restricted. State-owned enterprises play a key role in setting the sector's objectives and priorities, the energy pricing policies, and the share of production allocated to domestic energy markets. The region's 11 national oil companies rank among the 35 largest oil and gas companies, with Saudi Arabia's Aramco and Iran's National Iran Oil Company ranking first and third. The openness of MENA countries to FDI has differed among MENA countries with equity investment the least popular (table 4.5).

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Table 4.5: Restrictions on energy investment in MENA

Algeria	The 2005 hydrocarbons law allows foreign operators to act independently of Sonatrach. However, Sonatrach will have majority participation options on each newly discovered project.
Kuwait	Oil discovery or oil and gas production and upstream petroleum sector: only on buy-back contract arrangements, which do not involve production sharing, concessions.
Qatar	Commercial agencies and trading in real estate, public transportation, steel, cement, and fuel distribution. According to Law No.13/2000, foreign firms are allowed 100 percent ownership in agriculture, industry, health, education, and tourism sectors, as well as projects involved in the development and exploitation of natural resources or energy or mining, pending approval from the government.
Iran	The Iranian constitution prohibits production sharing agreements or outright concessions: only buy-back contracts.
Saudi Arabia	Exploration, drilling and production of oil, production of military equipment and uniform, production of explosives for civil purposes certain printing and publishing activities certain telecommunication services, land and air transportation, real estate investment, services involving fishing, distribution services including wholesale and retail trade and commercial agencies.
UAE	Foreign investors may not own more than 49 percent.

Source: US Commercial Guide 2006, IMF report 2007.

4.22   Given the limited possibility to buy equity in the MENA energy sector, Asian companies have focused on the downstream industry and on gas. On their side, both China and India are opening to investment from GCC countries in the downstream sector and in petrochemicals, seeking to benefit from their capital and experience. China and India represent important investment partners for GCC countries in the downstream sector, given their many competitive advantages: strategic location for crude supply and export, excellent infrastructure, experienced and competitive construction companies, and good fiscal regimes. Investment cooperation between China and MENA countries in the energy sector has increased significantly in recent years.[56]

CHINA AND INDIA INVESTMENTS OUTSIDE ENERGY

4.23   FDI from China and India in non-energy sectors is rising, particularly in Egypt, Morocco, and Algeria. However, most of the investment is directed toward the non-tradable sectors and very little toward export-oriented manufacturing. These sectoral trends in FDI have been considered a further example of the region being subject to the Dutch disease effect, which explains investment flows to non-tradable sectors with the low and declining competitiveness of the manufacturing sectors.[57] For India the major areas of operations include software services, engineering services, tourism, readymade garments, chemical products, agriculture, and allied activities.[58] China has targeted services (construction, tourism, and telecommunications).[59] Algeria's largest construction sites are virtually run by Chinese firms. In Tunisia Chinese firms are involved in the fertilizer industry, in Morocco in the fishing industry, and in

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[56] Anecdotal evidence is as follows: In December 2007 China's Sinopec signed a deal to buy oil and gas from Iran and to develop Iran's Yadavaran oil field. (i) Sinopec has committed to buy 250 million tons of liquefied natural gas from Iran over 30 years. (ii) In 2004 the Government of Oman and Sinopec signed an oil-concession agreement that provides for oil and gas exploration and production in 2 blocks in the south of the country. Provisions of the agreement commit Sinopec to carry out geological and geophysical assessments. In addition to the investment in the oil sector, the company plans to expand cooperation to include petrochemicals, training, and exchange of expertise. (iii) In 2004 officials from Yemen and China established a number of energy agreements calling for mutual exploration of Yemeni oilfields by CNPC and the Yemeni National Oil Company, as well as increased cooperation for technological exchange between the two companies. (iv) In 2004 a joint oil venture, the Sino-Syrian Kawkab Oil Company, was founded to develop an old oil field in Northeast Syria. (v) In 2004 Aramco granted Sinopec a $300 million concession to explore and produce natural gas in Saudi Arabia.

[57] For more details please refer to World Bank 2008b

[58] A 2007 report by the Euro-Mediterranean Network of Investment Promotion Agencies (ANIMA) shows that in 2006 India invested more than $730 million in 17 projects in the MEDA region, mostly in chemicals and software, but also in banking and consulting services. China and India ranked as 15 and 19 in countries investing in MEDA in aggregate FDI flows in 2006, and they are among the top three investors, with Russia, in chemicals. MEDA countries include Algeria, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Palestinian Authority, Syria, and Tunisia (De Saint-Laurent and Henry 2007).

[59] De Saint-Laurent and Henry (2007) show 20 new projects (from more than $1 billion) initiated in 2006 by China in MEDA region countries, mostly in banking, cement, machinery, and telecommunications.[59]

Algeria and Egypt in telecommunications. In Iran more than 100 Chinese companies are engaged in infrastructure (building telephone networks, roads, subways, dams, and port facilities) and the auto industry (it is in Iran that the Chinese automaker Chery opened its first car factory abroad). Box 4.1 describes recent investment activities of China and India in Morocco, Algeria, and Egypt.

Box 4.1: China and India FDI in Morocco, Algeria, and Egypt

Morocco. Morocco is one of the countries that has actively promoted FDI from China and India. Agreements of "investment encouragement and reciprocal protection" were signed by Morocco with China and India in 1995 and 1999, respectively. Double Taxation Treaties were concluded with China in 2002 and India in 1998. Agreements between the General Confederation of Moroccan Enterprises (CGEM) and the Indian Confederation of Industries were signed in 2000 and with the China Council for the Promotion of International Trade in January 2001. Investment projects from China and India during 2000–07 ranged between $2.5 million and $32.3 million. Official data suggest that in 2006 at least 30 Chinese firms (wholly owned or with an ownership participation of at least 50 percent) were operating in Morocco. About 90 percent of them were in the maritime fishing industry. India has traditionally enjoyed a presence in the strategic sector of phosphates and in the textile sector (18 Indian textile firms are currently operating in Morocco). However, in recent years it has also started to invest in the IT sector and in transport. In 2006 Tata Consultancy Services (TCS) has made the biggest investment ever made in Morocco in the off-shoring industry. The Government of Morocco has an active industrial policy that has targeted sectors with high value added and intends to promote Morocco as a platform of offshoring for the francophone and hispanic markets. TCS committed to create 500 new jobs in the coming three years and to assure the professional training of workers. Interviews to firms and operators point to the following motivations of investment, per sector:

- *Phosphates and derivatives*: Morocco is a world leader in phosphates and phosphoric acid, and has significant industrial know-how. India has traditionally been the largest client. In 2002 the Moroccan phosphate group OCP in partnership with the Indian company Zuari acquired majority stakes in an Indian company to facilitate its expansion in the Indian market.
- *IT-offshoring*: Excellent incentive framework for FDI for offshoring (tax incentive, installation of parks dedicated to this activity, financial support with training program professional); availability of professional qualifications and geographical proximity with Europe.
- *Maritime fishing*: Large fishing resources and good partnerships with foreign investors.
- *Iron and steel industry*: High performing local firms and market potential.
- *Transport materials*: Good geographic and strategic position.

Chinese and Indian investors also face a number of constraints. Restrictions on visas constitute a major obstacle to Chinese investors and production costs are relatively high (for example, a number of Chinese entrepreneurs are reconsidering plans to invest in the "zone franche" of Tangier because the cost of production is considered too high).

Algeria. In 2002 Algeria signed an agreement with China for reciprocal encouragement and protection of investments. No similar agreement was signed with India. Algeria grants "national treatment" to all foreign investors including temporary tax exemption and access to the industrial land. The minimum threshold for consideration is 500 million Algerian Dinar ($5 million). The National Council of Investment has the authority to negotiate the nature and level of the advantages with foreign investors. For example, in the early 2000s Algeria granted substantial advantages (over a period of 10 years) to the Indian multinational firm ISPAT (steel business) to establish operations in two locations (Annaba and Tébessa). ISPAT committed to invest at least $140 million in Annaba and $30 million in Tébessa over a period of 10 years. The advantages received included: application of 5 percent customs duties only; exemption from payment of value added tax; exemption of corporate income tax and of tax on professional activity in proportion to the turnover carried out with export; consolidation to 2002 level of the nominal tariff applied to imported products that compete with ISPAT products. Data from the National Agency for Investment and Development, confirmed by the General Directorate for Investment in the Ministry of Industry and Investment Promotion, indicates the following projects from China and India during 2000–07:

- *China*: Industry (12 projects for $228 million), Public works (7 projects for $26 million), Services (2 projects for $133 million).
- *India*: Industry (4 projects for $254 million), Public works (1 project for $127 million).

Interviews to firms and operators suggest that this low amount of investment is due to the relatively low purchasing power of the population and severe constraints in the business climate, including slow bureaucratic procedures.

Egypt. Egypt is attracting more investment from India and China, with Chinese private enterprises leading the way. Most of the investment is in the industrial sector, closely linked to the trade patterns between the countries (the government of Egypt considers China the most important trading partner; only few years ago China was 50th in the ranking of trading partners). But investment in services is on the rise with great potential. Egypt has made remarkable progress in reducing red tape and facilitating entrepreneurship. The World Bank's *Doing Business 2008* study placed Egypt as the top global reformer. Moreover, with the largest talent base in MENA, it is home to an increasing number of outsourcing centers operated by multinationals.

Number of Chinese and Indian companies investing in Egypt
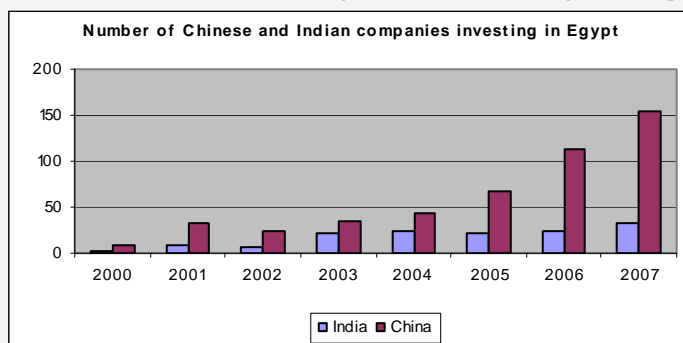
Source: The General Authority for Free Zones and Investment.

Egypt is now one of the main destinations for Chinese greenfield FDI. In 2006 Egypt and China secured contracts for joint ventures worth $2.7 billion.[60] The two governments also signed 11 trade and business cooperation agreements, ranging from manufacturing to communications equipment to cooperation in hydrocarbons, followed by a broader initiative to simplify procedures between the two countries, a memorandum of understanding to build Egypt's first marble waste recycling plant using technology from China, and technological service centers targeting Egypt's building materials and textile industries.

Source: Oxford Business Group.

Analyzing greenfield investments

4.24 Data on greenfield investments from China and India in the MENA region between 2003 and 2007[61] reveal that the main activities of Chinese affiliates in MENA are in the manufacturing sector (table 4.6). Chinese exports to MENA are mostly in manufactures and machinery and transport products, and investment decisions are likely to complement the trade structure. By contrast, Indian FDI are in offshoring activities, such as business

Table 4.6: Main activities of foreign subsidiaries in MENA (percent)

Main activities	India	China
Business services and technical support	24	4
Manufacturing	23	46
Retail	11	
Sales, marketing, and support	17	14
Extraction	3	21
Research and development	4	4
Logistic	1	7
Construction	4	
Others		4

Source: Staff calculations based on OCO Monitor data.

services, which represent 24 percent of the total, followed by manufacturing of products and sales, marketing, and support to customers. Indian firms have also been investing more in sophisticated sectors, such as banking and finance and software and IT services, which has been the main Indian industry investing successfully abroad, mostly motivated by exploitation of firm-specific advantages through an offshore-onshore model of service delivery.

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[60] In June 2007, Tianjin Industry Design and Research Institute secured a cement production line contract worth $370 million (De Saint-Laurent and Henry 2007).

[61] Given the lack of official databases on FDI (by country and sector) we use a unique dataset produced by a private company, OCO Monitor, which reports data on greenfield investment projects or expansions of existing projects by China and India in MENA. The data refer to 239 projects between 2003 and 2007 and provide detailed information on the sectors of the investment, the activities of the subsidiaries, the amount invested and the number of jobs created (where the information is available). A survey on the motives for the investment is also available.

Main drivers of China and India investment in MENA

4.25   The main motive for investment appears to be access to domestic markets, explaining why most FDI goes to resource-rich countries with higher GDP, proxies for a bigger domestic market (table 4.7). A second motive is proximity to markets and customers, which has two interpretations. First, Chinese and Indian firms aspire to serve customers in the region, in particular in the service sector where proximity to the final customer is very important. Second, China and India are looking strategically to export goods and services to third markets, using MENA countries as platform to reach these markets thanks to their geographical and cultural proximity. The EU and African markets are both accessible from MENA. Cost minimization is not a major motivation for Chinese and Indian multinational firms in MENA. This is consistent with China and India being already a low-cost production base.

Table 4.7: Motives for Chinese and Indian FDI

Motive	Percent
Domestic market growth potential	27
Proximity to markets or customers	25
Finance incentives or taxes or funding	8
Infrastructure and logistics	8
Lower costs	6
Attractiveness and quality of life	6
ICT infrastructure	4
IPA or government support	4
Regulations or business climate	4
Skilled workforce availability	2
Natural resources	2
Industry cluster and critical mass	2

Source: OCO Monitor data.

China and India spillover effects of investment in the region

4.26   There is little evidence of job creation or technology and knowledge transfers to local affiliates so far. It appears that FDI to MENA is not creating jobs, since fewer than 45,000 jobs were created in the whole region during the four years of observations in the dataset. Added to the analysis of the main activities of the subsidiaries in MENA, this shows the absence of potential backward linkages or technology diffusion through research in the region (R&D accounts for only 4 percent of the total activities), probably due to the lack of local skills and capabilities. Indeed, the availability of skills explains only 2 percent of the investment. This is also shown in the migration rates within the region, and the GCC countries in particular. Of the migrants to GCC countries in the early 2000s, 60 percent came from Asia, most of them from India (36 percent). China did not have the same importance as a supplier of labor to the region, but this could be due to the lack of up-to-date data and the differences in business models between China and India.[62] The picture might be different in more recent years, as anecdotal evidence shows a rising share of Chinese workers in the GCC labor market (particularly in construction). "Labor service cooperation" between China and GCC countries is also on the rise (table 4.8).[63]

Table 4.8: Labor service cooperation with China (percentage increase over previous year)

	2003	2005
Bahrain	43	40
Kuwait	55	141
Oman	147	28
Saudi Arabia	18	4

Source: Staff calculations based on data from the Ministry of Commerce of the People's Republic of China.

Main constraints to positive spillover effects in the region

4.27   Empirical evidence shows that FDI can have positive effects on productivity and growth in host countries. The beneficial spillover effects are due to several interrelated factors, including improvements in productivity, technology transfers, and promotion of exports. However, the impact of FDI is larger when financial markets are well developed, few local barriers to entry exist, and human capital is ample

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[62] China has until recently invested mostly through state-owned enterprises or firms with monopoly to secure strategic assets, with private firms requiring government approval to invest overseas. This strategy changed after 2002, when China started to encourage its national firms to "Go Global." In contrast, Indian multinationals have been present in the region for a longer time, even if not extensively in the amount of investment.

[63] Labor cooperation refers to wages and salaries, overtime pay, bonuses, and other remuneration received by Chinese contractors, firms, and employees from the employers during the reference period.

(Alfaro and others 2006). Other studies of foreign direct investment impact show that the spillover effects on the productivity of the rest of the economy, crucial for foreign direct investment to promote growth, come through direct links with foreign investors. Joint ventures are more likely to generate productivity spillovers, which occur mostly in companies that supply the new foreign direct investment entrant. However, in countries where financial markets are underdeveloped, other barriers to entry proliferate, and human capital is limited, the productivity effects of FDI appear to be small.[64]

4.28 MENA countries have made significant progress in reforming the regulatory environment for business and investment. They have all embarked on second generation reforms (for example, privatization, financial sector reforms, and business-entry regulatory reform). As a result, the attractiveness of their economic environment to foreign investors has increased substantially and the risk of investing in MENA has decreased (most of them present an "investment risk" index lower than China and India).[65] However, discriminatory screening and approval procedures for FDI still apply to most of the countries, and formal and non-formal barriers are still in place.

4.29 There is room for more spillovers associated with investment from China and India. MENA countries may want to adopt measures to maximize the potential benefits from the incoming investment. In particular, MENA countries need to accelerate trade reforms and increase the outward orientation of the economy to attract larger flows to the export sector. For instance, by integrating more into regional and global production chains, MENA countries would be more likely to encourage those linkages of foreign affiliates with domestic firms that are currently missing. The institutional and regulatory regime for FDI needs improvement to create an investment environment conducive to private sector growth.

Investing in skills is key

4.30 Improving the quality of skills available and the absorption capacity of the domestic economy is key to ensure technology transfer and knowledge spillover. Table 4.9 shows the index of "Global services location," which indicates the attractiveness of a number of MENA countries,

Table 4.9: Global services location index, 2007

Rank	Country	Financial attractiveness	People and skills availability	Business environment	Total score
1	India	3.22	2.34	1.44	7.00
2	China	2.93	2.25	1.38	6.56
13	Egypt	3.22	1.14	1.25	5.61
14	Jordan	3.09	0.98	1.54	5.60
26	Tunisia	3.03	0.90	1.50	5.43
36	Morocco	2.92	0.90	1.33	5.14

Note: The weight distribution for the three categories is 40:30:30. Financial attractiveness is rated on a scale of 0 to 4, and the two other categories are on a scale of 0 to 3.
Source: Kearney (2007).

China, and India for off-shoring services. MENA countries are increasing their visibility as remote locations. Egypt and Jordan are among the top 20 countries in the Global Services Location Index 2007, and Tunisia and Morocco are moving up, reflecting interest in locations that can serve francophone markets. The indicators of financial attractiveness and business environment are not very distant from China and India's. In fact, in a few countries they are actually higher than China and India's. But MENA countries fare well below the Asian countries in the "people and skills availability" indicator. This represents a constraint to potential positive spillovers from foreign investment.

4.31 Investment in human capital is critical to channel knowledge and expertise from foreign investors into the host country. A highly educated domestic labor force has been an important factor behind the rapid growth of the Asian countries, which invested substantially in skills. Most MENA countries, by contrast, still lack a labor force with a proper mix of skills. This is true both for oil and non-oil producers. MENA countries need to further engage with the global economy also through knowledge. They need to invest more in providing quality higher education, establishing skills institutions to promote technical

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[64] Some studies finds a much stronger link between trade openness and export diversification than between foreign direct investment and diversification (Noland and Pack 2007).
[65] For more details, please refer to Annex IV.

knowledge, and promoting linkages between firms (domestic and foreign) and knowledge institutions by creating active networks to successfully channel knowledge transfer.

CONCLUSIONS

4.32   The MENA region is enjoying an economic boom thanks to the rise in oil prices, increased integration in the world economy, and implementation of reforms that improved the investment climate. Some countries in the region are emerging as international investors. Gulf countries are investing billions abroad thanks to unprecedented current account surpluses. They are increasingly seeking to invest in alternate markets and currencies, looking more toward the East. The region is also attracting an increasing share of the world FDI, partly due to an increase in intraregional foreign investment from the resource-rich countries, attracting capital from other developing countries including China and India. However, most of the investment is concentrated in a few countries and sectors, exacerbating the Dutch disease effect in the region.

4.33   Two-way investment flows between MENA and China and India are still small, but they are increasing fast, involving not only the oil-rich countries but also the rest of the region. The two Asian countries have welcomed investment from MENA's oil-rich countries in their downstream energy industry offering strategic locations for crude supply and export, excellent infrastructures, experienced and competitive construction companies, and excellent fiscal regimes. Oil-exporting countries could attract sizable FDI into their energy sectors—but this is not happening because they limit the equity participation of foreigners. More than capital, countries in MENA need FDI primarily as a source of knowledge, technology, management know-how, and networking.

4.34   While FDI in industry and service has increased, MENA countries have failed to attract significant high-quality, export-oriented FDI, particularly from China and India. In a global world, trade and investment tend to be complementary, and global investors need free trade and free foreign exchange regimes to maximize the economies of scale generated by multicountry production centers. To attract FDI from multinational corporations, MENA needs to lower the costs of setting up business, dealing with bureaucracy, paying taxes, exporting and importing, and hiring and firing workers. It also needs to improve the supply of skills, infrastructures, and legal and judicial systems.

4.35   The benefits of FDI do not come automatically. Multinational corporations aim to increase their profitability in an international context, and host governments, to foster development. Host governments should develop policies that are friendly to investors and that maximize the contribution of FDI to development. China and India have not yet established strong links with domestic firms in MENA or added to production capacity. Nor do they contribute much to job creation or to the transfer and diffusion of technology. This is due partly to their investment strategies and the business models for implementing them—but also to constraints in the region that might prevent FDI from generating positive spillovers. These constraints include high-quality skills, a supplier network that permits specialization and competitive costs, and a suitable physical, scientific, and institutional infrastructure.

CHAPTER 5. DIRECTIONS FOR THE FUTURE

Will further acceleration of the Chinese and Indian economies drive growth in the rest of the world, or will China and India simply overtake countries that fail to make competitive adjustments? The MENA region as a whole is expected to gain from higher growth in China and India, but manufacturing exporters may see sizable losses, particularly in the European Union and other markets. With unemployment already high in the region, these losses may be especially difficult. The challenge for the region's labor-abundant countries will thus be to generate jobs through increased productivity growth in all sectors of the economy. In both China and India significant political and institutional shifts appear to have preceded and accompanied sustained, growth-oriented policy changes—shifts that have barely begun for MENA countries.

IMPACT OF CHINA AND INDIA'S GROWTH ON MENA COUNTRIES

5.1   The World Economic Forum that took place in May 2008 proclaimed that China and India will become the dominant manufacturing and services powerhouses, while GCC countries are likely to support their growth through energy and capital. Chapters 1 and 2 found that MENA's increasing integration with China and India has brought many benefits, including higher consumer welfare and large oil revenues. However, competition with China and India has negatively affected the non-oil exports of all MENA countries and is becoming fiercer. Competitive pressures for producers have multiplied, particularly in the unskilled labor-intensive industries.

5.2   What will the future bring to the resource poor, labor-abundant countries of MENA? How will the welfare of all MENA citizens be impacted by these events? The literature offers a number of approaches to analyze these questions (box 5.1). In this chapter we use a general equilibrium model to simulate the potential impact on MENA's output, prices, and exports of changes in China and India's growth, as well as improvements in the quality and variety of their exports up to 2020. This model is a special version of the Global Trade Analysis Project (GTAP) model (documented in Ianchovichina 2004).[66] We construct a baseline for 2005–20 using current World Bank growth and macroeconomic projections; we then consider the impact of a further acceleration of growth in China and India (two percentage points per year higher than the projected rate). Finally, a special scenario in which the quality and variety of exports from China and India improve as they grow is then examined (see Annex V for further details on the model).

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[66] A general equilibrium model ensures consistency while including important industry details: each region's exports of particular goods equal total imports of these goods into other regions (less shipping costs), global investment equals the sum of regional savings, regional output determines regional income, global supply and demand for individual goods balance, and demand for a factor equals its supply in each country or region. These accounting relationships and the behavioral links in the model constrain the outcomes in important ways not found in partial equilibrium analyses—increased exports from one country must be accommodated by increased imports by other countries, and broad-based increases in productivity that raise competitiveness also raise factor prices and help offset the original increase in competitiveness.

5.3   The model includes eight low- and middle-income MENA countries, most of them labor-abundant countries—Algeria, Egypt, Iran, Jordan, Lebanon, Morocco, Syria, and Tunisia—plus a composite energy-rich MENA region (referred to as "other MENA") that includes the GCC countries, plus Iraq, Libya, and Yemen. The model incorporates some of India's major reforms, such as the liberalization of nonagricultural tariffs, the introduction of free trade zones (with zero tariffs on intermediate inputs used to produce exports), and improvements in infrastructure that supports trade.

5.4   The starting hypotheses included in the baseline projection of world economic output to 2020 are as follows: China's output growing at 6.6 percent annually, India's at 5.5 percent, and MENA's at 3–5 percent, closer to historical trends (table A5.1 in Annex V). Next, the implications of higher-than-projected growth in India (1.9 percentages higher a year) and China (2.1 percentages higher a year) are examined: output in 2020 is 39.9 percent higher in China and 33.7 percent higher in India than under the

baseline scenario.[67] Finally, following recent empirical evidence (see, in particular, Hummels and Klenow 2005) we add the hypothesis that economic growth increases both the quality and the variety of goods exported by the growing economy and we then analyze the implications of this hypothesis.[68]

Impact of higher growth in China and India on welfare, terms of trade, and exports

5.5   The effect of Chinese and Indian higher growth on real incomes (welfare), terms of trade, and exports is described in table A5.2 in Annex V. MENA is likely to benefit substantially from increased growth in China and India. Real incomes in MENA could rise $24 billion (1.5 percent) a year at 2004 prices. The gains for other countries are generally relatively small: income gains are largest for commodity producers, particularly MENA oil exporters, but also for some high-income, industrialized countries. Countries in the European Union and Japan experience no net gains or losses because they are commodity-poor and because other terms-of-trade gains are offset by regulatory and trade distortions.

5.6   Improved welfare in MENA as a whole is generally not associated with increased export volumes. Oil-exporting countries experience large welfare increases thanks to higher energy prices and are thus able to increase consumption at any given volume of exports, reducing their ability to export. Given MENA's sizable exports of energy products and the larger increase in energy prices than in prices of other goods, it is unsurprising that the region as a whole benefits from the strongest terms-of-trade gains. The welfare gain of the oil exporters in MENA is exceeded only by the welfare gains of China and India. However, exporters of manufactures suffer from increased competition and lower prices for their products.

5.7   Since the world price effect in table 5.1 is an important determinant of the welfare changes in the region, it is useful to understand the contributing factors. These include effects on three separate groups of goods and services—manufacturing and services, energy, and agricultural products. For manufacturing and services, a decline in their relative price is expected. Energy supply is different from other resources in that it is fixed. As energy demand rises with an increase in incomes, energy prices are pushed up relative to factor prices. In our model the effect is muted, but not completely offset, by the assumed increase in the productivity of energy production. For agricultural goods several influences on prices compete in the long run.[69] The increase in world prices of key agricultural products appears to result from the transfer of resources out of labor-intensive agriculture, which is associated with the rise in physical and human capital in China and India. The effect of this complex movement of prices on the welfare of the region is straightforward. Many MENA countries are net food importers and therefore suffer from increased food prices; however, the energy exporters in the region benefit from higher energy prices and lower prices for imported manufactures.

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[67] Predicted growth is assumed to be associated with the same percentage increases in capital and human capital (or, equivalently, continued high savings and investment) in China and India.

[68] In all simulations the trade balances as shares of GDP were held constant for China and India to avoid welfare changes due to increases or decreases in financial inflows from abroad when growth rates in these countries shift substantially. The macroeconomic closure of the simulation model assumes constant employment and perfectly mobile skilled and unskilled labor between sectors but not between regions.

[69] First is the technological change effect described above for manufacturing and services, which tends to lower prices. Second is a fixed factor, land, in agricultural production, which tends to raise prices, just as with energy products. Third is the Engel effect—that demand for agricultural products, and particularly basic foods, tends to rise more slowly than income. Fourth is that growth tends to reduce agricultural output and raise agricultural prices when it is associated with increases in the capital-labor ratio. The decline in world prices of agricultural products is a consequence of the assumed neutrality of technical change in this experiment. Output of all goods increases uniformly, but the demand for food grows less than proportionately because the demand for these goods generally has low income elasticities. This result is not preordained. For example, in the baseline simulations used to project the model to 2020, the prices of agricultural goods rose, rather than fell, but in the growth experiment reported by Dimaranan, Ianchovichina, and Martin (in Winters and Yusuf 2007) the prices of agricultural products fell because the stocks of capital and human capital remained constant.

Table 5.1: Implications of higher growth in China and India for world commodity prices

Commodity	Higher growth assumption	Higher growth and improved quality of exports assumption
	Percent	Percent
Rice	1.05	1.71
Wheat	3.16	3.4
Grains	2.58	2.85
Vegetables and fruits	2.08	2.25
Oils and fats	–0.21	–0.7
Sugar	–0.67	–1.29
Plant-based fibers	3.41	3.55
Others crops	1.24	1.15
Livestock and meat	–0.27	–0.8
Dairy	–0.78	–1.44
Other processed foods	–0.82	–1.4
Energy	5.52	4.89
Textiles	–1.15	–1.1
Wearing apparel	–1.9	–0.97
Leather	–1.36	–1.11
Wood products	–1.54	–2.03
Minerals	–1.42	–1.31
Chemicals	–1.17	–1.59
Metals	–1.89	–1.87
Vehicles	–1.76	–2.46
Machinery and equipment	–2.28	–2.22
Electronics	–2.66	–2.71
Other manufactures	–3.63	–1.12
Trade and transport	–1.37	–1.7
Communications	–2.13	–2.42
Other services	–1.66	–2.24
All	–1.24	–1.45

Source: Authors' simulations with GTAP-DD (Ianchovichina 2004).

Impact on welfare and trade of accelerated growth and improved quality and variety of exports

5.8   What happens when China and India improve the variety and quality of their exports moving into more sophisticated and technologically advanced products? The result is a significant welfare gain to the world economy (table A5.2 in Annex V). In this case the volume of exports from China grows 61 percent and from India 69 percent, with positive terms-of-trade effects in almost all countries.[70] Most countries benefit because they can import higher volumes from China and India at lower effective prices and because they enjoy greater Chinese and Indian demand for their exports. The biggest beneficiaries are, of course, China and India, whose estimated welfare gains increase for both by around 31 percent. The volume of trade between China and India increases more than either's trade with the rest of the world, deepening the trade links between the two Asian giants.

5.9   Real incomes in MENA could rise $29 billion a year (at 2004 prices), $5 billion more than in the case where China and India's growth is not accompanied by changes in types and quality of exports. However, some countries in MENA (Algeria, Jordan, Tunisia, and a few others) will experience higher

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[70] In the model with product-quality-augmenting technical change, since the price of relevance to the importer is the effective price, which may fall when quality and variety increase, and the price relevant to the producer is the actual price, which rises when quality and variety increase, it is possible for the terms of trade to improve for both importers and exporters.

net export losses. The impact of increased opportunities to export to Asia is dominated by the negative effect of the increase in third-market export competition and increased domestic demand from the terms-of-trade improvement. MENA is likely to play a smaller role in exporting manufactured goods and services as a result of higher growth in China and India. But the boost to China's and India's manufacturing industries has positive spillover effects through increased demand for intermediate inputs, including minerals, energy, and farm-based natural resources. Indeed, exports of energy increase the most, followed by farm products and minerals.

MENA experiences net export losses

5.10 The aggregate results hide differences at the country level. But exports of manufactures will be hit hard in all countries (figure 5.1)—and even harder for some industries in some countries (figure 5.2). Improved growth of exports from China implies an expansion of its textile industry at the expense of the textile industry in all MENA countries except Egypt and Tunisia. The projected growth of China's apparel industry will also lead to a sharp contraction of apparel production elsewhere, including in all MENA countries. Similarly, large declines are

Figure 5.1: Change in manufactured exports due to high growth in China and India

Source: Authors' simulations with GTAP-DD (Ianchovichina 2004).

expected for machinery and equipment, electronics, and other manufactures. But other industries will flourish, including energy, metals, and agriculture products such as vegetables and fruits.
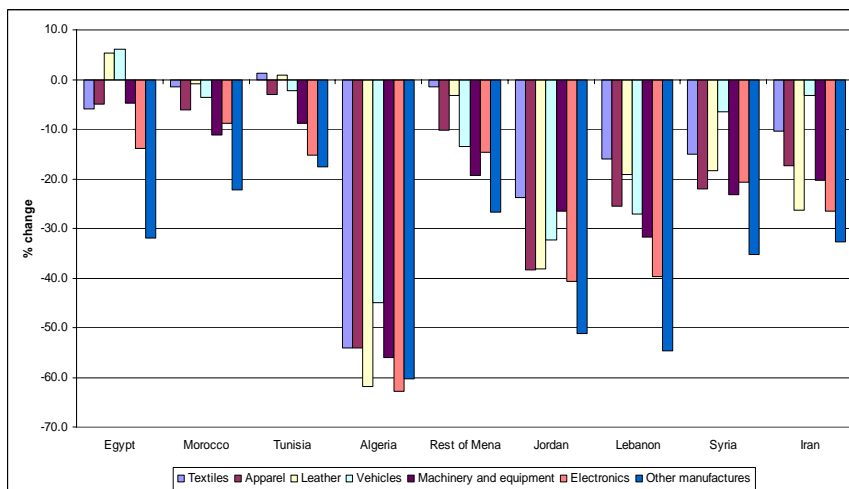
5.11 The expansion of the energy sector and the contraction of manufacturing and services are signs of the Dutch disease effect. Typically, the increase in the price of natural resources raises the possibility that the expansion of the natural resource sector will de-industrialize (or de-agriculturalize) the economy by attracting resources away from the lagging nonoil-production sectors and raising the prices of non-tradables in the economy (thus further lowering the competitiveness of the lagging sector). In principle, however, the resource boom may allow for governmental expenditures in the lagging sector that raise

Figure 5.2: Changes in export volumes under different assumptions of growth (relative to baseline)

Source: Authors' simulations with GTAP-DD (Ianchovichina 2004).

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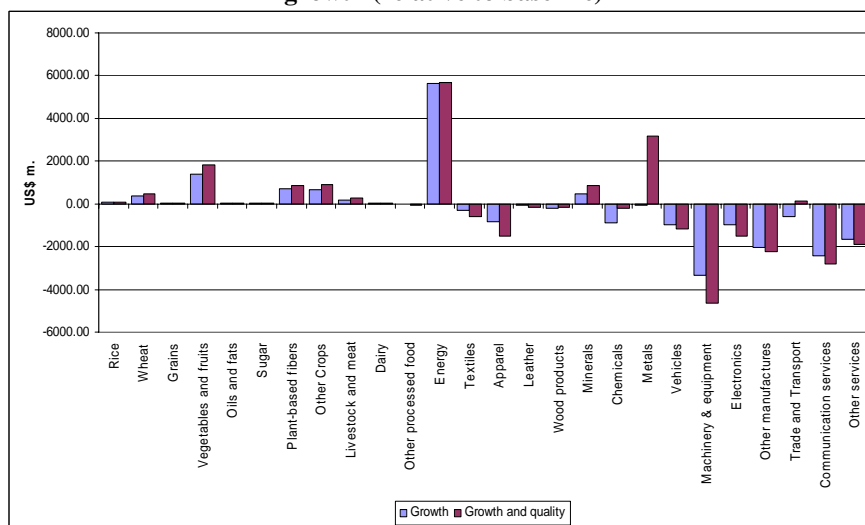
its competitiveness, through measures such as technological improvement. All MENA countries will face more pressure to adjust their domestic and trade policies in order to increase competitiveness and cushion the effects of rising oil prices and revenues on their non-energy sectors. The challenges will be great because the few export sectors enjoying dynamic export growth are capital intensity, creating fewer jobs. When improvements in product quality and variety are taken into account, new opportunities to increase exports of certain crops, vegetables and fruits, minerals, metals, and trade and transport services are amplified, but so are the losses of manufacturing sectors (figures 5.1 and 5.2).

MEETING THE CHALLENGE OF COMPETITION WITH CHINA AND INDIA

5.12 The acceleration of growth and exports in China and India challenges MENA producers to aggressively increase their productivity—especially to ensure employment growth. Productivity improvements have significantly lagged among MENA non-oil producers. Tunisia, the fastest growing of the non-oil producers in the 1990s, saw total factor productivity in the whole economy increase by approximately 1.8 percent per year from 1990–2000. Total factor productivity grew in Egypt by 1.6 percent from 1991–2000 and by 1.1 percent from 2001–06. Jordan, Morocco, and Algeria had no or negative TFP growth over the 1990–2000 period (Bosworth and Collins 2003). These rates fall well below those in China.[71] And even countries that have experienced more rapid productivity growth have seen employment lagging.[72] But how important is productivity growth in both oil- and nonoil-producing MENA countries, particularly in a global economy in which China and India have emerged as export powerhouses? And is there any lesson that MENA countries can learn from the growth experience of China and India? These questions are discussed in the next sections.[73]

Addressing obstacles to investment and productivity improvement in labor-abundant, nonoil-producing MENA countries

5.13 Growth and innovation require capital; the freedom of innovative entrepreneurs to enter new markets and the ability to move capital away from unsuccessful efforts; and investor expectations of minimally predictable government policies that refrain from opportunistic expropriation of successful entrepreneurs. The Indian and Chinese productivity revolutions entailed major changes in the 1980s and 1990s that affected all of these. India shifted away from state-led economic development to significantly (if still partially) open markets, and increased internal competition. China liberalized agricultural markets and private investment and then adopted a very open trade regime, encouraging both internal and external competition where there had been none. China spent massively on public infrastructure, and much of it has improved the productivity of private investment. India's inability to grow even faster is due in part to its lack of investment in roads and power.

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[71] Islam, Dai, and Sakamoto (2006) review estimates of TFP growth for the first 15 years of reform (1979–94) that range from 2.6 to 3.8 percent per year. In their own analysis, taking into account changes in the quality of labor and capital composition (both of which push estimates of productivity growth downwards), they estimate TFP growth for the entire period, 1978–2002 to range from 2.95 to 4.06 percent per year. These estimates at least match Egyptian TFP growth in the 1980s and are twice or three times as fast as Egyptian TFP changes after 1990. The slower rate of TFP growth in Egypt helps to explain the Yeats and Ng (2000) finding that the international competitiveness of many MENA countries appeared to decline in the 1990s—precisely when productivity exhibited striking increases in China and India.

[72] Some evidence suggests that in Tunisia (1997–2001) and Morocco (1999–2003) productivity growth and employment growth moved inversely (Nabli 2007). Productivity increases have been associated with job losses in the United States as well, though the underlying reasons are likely different. In particular, Resheff (2007) found that technological change in the United States did not directly cause a bias toward skilled workers but that it shifted production to (non-skill-intensive) services and away from (skill-intensive) manufacturing, while leading to a tremendous increase in the productivity of unskilled workers in the service sector, allowing employers to use fewer of them. In MENA countries so few unskilled workers are employed in manufacturing that this employment-reducing substitution effect is unlikely to be important.

[73] Answers to this final question are provided in the recent World Bank (2008). The aim of this chapter is limited to the discussion of MENA's relationship with China and India.

5.14   Only recently, and then only in some countries and in some policy areas, has MENA seen changes in a similar direction. Overall, though, persistent governance concerns, low public spending on infrastructure, limitations on private provision of infrastructure services (such as telecommunications), and difficulties in finance and entry regulations such as those related to the acquisition of land have not been offset by significant changes in other areas of the investment or competitive climate. These issues are particularly important for the labor-abundant, nonoil-producing countries, while a separate set of issues concern the oil-producing countries.

5.15   *Finance*. Labor-abundant, nonoil-producing MENA countries' ability to finance investment depends heavily on local financial systems, particularly the efficiency with which banks collect savings and channel them to productive private enterprises. At first glance, finance does not appear to be an issue in nonoil-producing MENA countries: credit to the private sector as a fraction of GDP is higher in Tunisia, Jordan, Morocco, Egypt, and Lebanon than in East Asia (Keefer 2007b). Capital is abundant in the region, in both traditional banking and Islamic financial institutions.

5.16   However, other indicators offer a less optimistic outlook. Firm-level data indicate that businesses in China are both more likely to use bank credit and less likely to rank access to credit as a major obstacle to growth. Investor protection and credit information are key institutional ingredients in a well functioning financial system—and both are substantially worse in labor-abundant MENA countries than in the best performers. No labor-abundant MENA countries have private registries that provide credit information. The borrowers covered in public registries range from a high of 13.7 percent of all adults in Tunisia to 0.8 percent in Jordan. Neither China nor India is a stellar performer in this area, but both at least match the best performers in the MENA nonoil-producing group: India's private registries cover 10.8 percent of adults, and China's public registry covers 49.2 percent. Similarly, the investor protection index is 5.0 for Egypt and Lebanon, 4.3 for Jordan, 3.3 for Tunisia, and 3.0 for Morocco; it is 9.7 for the top performer, New Zealand. Again, China (5.0) and India (6.0) at least match the top performer among the nonoil-producing MENA countries.[74]

5.17   How can lending to the private sector in nonoil-producing MENA countries be so high without institutions that reduce credit risk? Keefer (2007b) suggests that the main reason is the extraordinary concentration of lending among a few borrowers and state-owned lending institutions. Although the situation may have changed recently due to financial sector reforms, 2006 data from the Central Bank of Egypt show that 565 borrowers (approximately 0.2 percent of total borrowers) receive more than 50 percent of total credits issued by Egyptian banks to the private sector (World Bank 2006).

5.18   *Entry regulations*. The ease of entry into new markets and activities is a key determinant of investment flows and productivity-enhancing innovation. Entry barriers come in many forms, some observable, some not. Two particular obstacles to new entrants stand out: barriers to land ownership and barriers to trade. Barriers to land have two main effects. First, most economic activities are difficult to undertake without physical premises. Second, in countries with weak credit markets collateral demands of banks tend to be high, and forms of collateral other than property are disfavored. In both cases barriers to land can reflect official efforts to bar entry to potential competitors of favored incumbents. Firm-level surveys indicate that businesses in MENA countries are more likely to report that access to land is a major or severe obstacle: 26 percent of medium-size firms in Egypt and 42 percent in Morocco (among oil-producers, 35 percent of medium-size firms in Algeria and 38 percent in Syria), compared with only 12 percent in China. Difficulties of land access are generally due to the extent of state ownership of commercially attractive property and to inadequacies in land registration institutions that obstruct land sales and rental markets.[75]

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[74] All comparisons in this paragraph are from the World Bank 2008a (www.doingbusiness.org).
[75] See Keefer 2007b, table 4, based on data from the World Bank Investment Climate Surveys (www.enterprisesurveys.org).

5.19   Chapter 2 has discussed barriers to trade in MENA. They vary by country, and overall the region has become more open in recent years. Nevertheless, estimates from Kee, Nicita, and Olarreaga (2006b) indicate high rates of trade restrictiveness among non-oil producers in MENA relative to East Asian comparators. They calculate an index of restrictiveness that was greater than 0.7 for Egypt and almost 0.5 for Morocco but only 0.24 for Malaysia, 0.18 for China, and 0.06 for Indonesia. Even if Egypt's 2004–06 trade reforms halved the country's trade barriers, they remain substantially higher than East Asian comparator countries.

5.20   *Governance*. The credibility of government promises and the degree to which government policies treat private investors equally and predictably are at the heart of governance issues in growth. In contrast to most industrialized countries, where entry barriers are uniformly low for all investors, and to China, where many officials can approve investments, large investments in nonoil-producing MENA countries must have formal or informal approval from high-level government officials. This is symptomatic of the governance problems that the countries confront: the lack of institutional or other guarantees against opportunistic changes in the rules of the game make it prudent that large investors have explicit understandings with high-level officials to provide insurance against adverse policy changes.

5.21   Aggregate indicators suggest a governance environment at least on par with fast-growers such as China and India. In the 2004 Worldwide Governance Indicators Egypt, Lebanon, Morocco, Jordan, and Tunisia averaged one point higher on rule of law and corruption scores than large East Asian countries.[76] About 30 percent of medium-size firms in China interviewed for the enterprise surveys that are the source of entry regulations discussed earlier viewed corruption as a major or severe obstacle to growth, compared with 50 percent in Egypt. Fewer than 10 percent of Jordanian and 15 percent of Moroccan respondents expressed this opinion, however. But even if the *de jure* environment becomes friendlier, entrepreneurs in some countries complain that connected individuals exploit new, informal privileges when reforms eliminate old advantages. Anecdotal evidence points to importers who previously relied on informal arrangements to avoid tariffs and who, post-liberalization, turn to similar arrangements to avoid paying value added taxes when trade regimes are liberalized. This is consistent with the conclusions of Esfahani (2007), who argues that government accountability to citizens is inversely related to the difficulty of doing business in the region.

5.22   *Infrastructure.* Public policy undermines infrastructure when public infrastructure is underfunded, when resources flow to projects with low rates of return, and when the regulation of infrastructure operations deters efficiency improvements and innovation. By contrast, governments committed to economic growth spend more on productivity-enhancing infrastructure. Such spending also signals to investors how seriously the government takes the growth agenda because the political benefits of productive public investment usually depend to a larger degree on a significant response by private investors than nonproductive investment does.

5.23   Agénor and others (2005) observe that public investment in MENA exhibits all three traits: underinvestment, low productivity, and inefficient regulation. For example, throughout the 1990s Egypt and Tunisia spent less than 2.5 percent of GDP on infrastructure and Jordan less than 1.8 percent. Though more than what India spent (1.5 percent of GDP), these spending levels were far less than what China spent (more than 7 percent of GDP in some years). Over 1990–2002, for example, China's increased its total road network by 50 percent, with half the increase achieved during 1990–95. Both India and China have liberalized key infrastructure sectors, particularly telecommunications, to a far greater degree than MENA non-oil producers.

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[76] One point is almost one standard deviation. See Keefer 2007b, figure 5, based on information from Worldwide Governance Indicators (http://info.worldbank.org/governance/wgi2007/).

Attitudes and the investment climate in nonoil-producing MENA countries

5.24   Shortcomings in the investment climate are in part the result of government decision makers favoring some economic interests over others. However, government policies can also reflect the general preferences of citizens. If citizens are antagonistic to a growth-oriented policy environment, governments are less likely to implement growth-promoting reforms. There is evidence that attitudes in MENA substantially differ from those in China and, to a lesser extent, in India on a wide range of issues, from the value of leisure to the importance of religion to tolerance for the influence of free markets. Chinese respondents to cross-national surveys exhibit a stronger preference for work (and the income that work brings) and less suspicion of markets than respondents in MENA or India. To the extent that public policy toward private investment and markets reflects popular preferences, these attitudinal differences would point to a more investment-friendly climate in China.

5.25   The World Values Surveys (most of them undertaken in 2001 and 2002) are the best source of evidence on some of these issues.[77] One survey question concerns the value that respondents place on leisure. Some 49 percent of Chinese respondents rated leisure as very or rather important (only 7 percent rated it as very important), compared with 74 percent of Moroccans, 68 percent of Iranians, 64 percent of Saudis, 63 percent of Algerians, 57 percent of Jordanians, and 55 percent of Egyptians. Indian respondents, at 61 percent, were closer to the MENA respondents. More than 20 percent of respondents rated leisure as very important in all these countries except Egypt, where only 9 percent rated leisure as very important, and the closest to the Chinese respondents.

5.26   The relationship between religion and economic growth is much disputed. In countries where citizens regard religion as particularly important, citizens are more likely to tolerate slow growth if government policy on religion aligns with their preferences. McCleary and Barro (2006) find evidence that religious beliefs (such as belief in an afterlife) promote growth, while resources dedicated to religious activities slow growth. Religion is far more important in the MENA region than in China or India. In China only 9 percent of respondents to the most recent World Values Surveys regarded religion as very or rather important. India was, again, much higher, at 79 percent. But in all MENA countries more than 90 percent responded that religion was very important, and nearly 100 percent that it was very or rather important.[78]

5.27   MENA countries differ substantially from China, though again, not from India, in the degree to which they believe others would take advantage of them rather than try to be fair. In China only 18 percent of respondents said that others would take advantage of them, compared with 70 percent that said others would be fair. This is all the more remarkable because respondents have maintained such attitudes even in the massive shift toward market-based economic relationships. By contrast, 64 percent of Moroccans, 55 percent of Indians, 50 percent of Egyptians, 49 percent of Algerians, 47 percent of Saudi Arabians, and only 23 percent of Iranians responded that others would take advantage of them. The absence of a belief in the fairness by others makes a shift toward market-based policies and away from government-guided economic relations appear much more risky to citizens.

5.28   Attitudes toward free markets and government oversight of the economy are more directly assessed by asking whether people or the government should take more responsibility for their welfare. But the question is ambiguous: it is unclear whether the question refers to "more responsibility, relative to the

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[77] The World Values Survey (www.worldvaluessurvey.com) is a broad effort to interview nationally representative samples of the residents of countries throughout the world. It is conducted by a network of social scientists at universities around the world; to date they have surveyed more than 80 countries and conducted four waves of surveys since 1981.

[78] McCleary and Barro (2006) find, however, that Muslim countries are an outlier. They score high on religious beliefs and low on frequency of attendance, which suggests that Muslim countries should grow faster than average. In fact, they grow much more slowly than average. McCleary and Barro attribute this to mismeasurement: the frequency of attendance at religious services, as measured cross-nationally, significantly understates the actual time, effort, and resources devoted to religious activities in Muslim countries. The World Values Survey results provide an indication that this could indeed be the case.

responsibility they currently accept" or "who bears more responsibility for welfare." Whichever the case, though, Chinese and MENA attitudes again differ widely. The share of respondents who assign the most responsibility to people was 15 percent in China and 16 percent in India. MENA respondents are uniformly lower, though not necessarily by much: responses range from 13 percent in Jordan to 5 percent in Egypt. At the other end of the spectrum, 14 percent of Chinese respondents assign the most responsibility to government, compared with 34 percent of Indian respondents, 30 percent of Moroccans, 28 percent of Jordanians, 22 percent of Algerians, and only 8 percent of Iranians, 6 percent of Saudi Arabians, and 18 percent of Egyptians.

5.29   Whether a product of the MENA economic and political environment, MENA respondents' attitudes are less conducive to government policies to promote growth. More encouraging, however, is that Indian respondents are somewhat similar to their MENA counterparts and India is prospering despite attitudes that are significantly less friendly to markets than those in China. This reinforces the general lesson emphasized here: growth is driven by creation of policy environments that offset disadvantages over which the government has little control, such as citizen attitudes.

5.30   The political changes in India and China are important when considering assessments of Chinese reforms that emphasize pragmatism, including assessments by Chinese leaders themselves (box 5.2). Pragmatism is often taken to mean that the reforms were incremental. Although the approach was pragmatic, the shifts in the underlying policy—and political—environment were dramatic, going far beyond lifting some trade barriers or introducing one-stop shops to facilitate business registration, as helpful as such reforms are.

Box 5.2: Learning from institutional shifts and growth in China and India

China's and India's experiences show that a serious pro-growth agenda requires broad and deep economic and institutional reforms. As Keefer (2007a) argues, these countries experienced political and institutional shifts that suggest profound commitment from political leaders. One shift simply involved a change in attitudes toward private sector activity. Rodrik and Subramanian (2005) argue that Indian growth accelerated when Indian leaders began to see growth as a viable strategy for political survival. And in China reform began with leaders concerned about the growing income gap between China and the rest of East Asia who became convinced that centrally planned economic growth would not be enough to catch up. In both cases economic growth became the best response to actual and potential political challenges. However, attitude shifts about the political merits of growth were not sufficient to ensure growth. Entrepreneurs needed to be sure that commitments to the private sector were credible, and public officials needed to be convinced that growth-oriented policies were in their interest.

In India lack of credibility in the commitments toward the private sector was acute in the 1970s. Intraparty checks on Congress Party leaders weakened, and the government of Indira Gandhi nationalized the banks and began to rule using emergency powers. In 1977, however, India took a significant step toward mitigating one-party or one-individual rule. The Congress Party lost the elections, and India shifted from a near one-party state to a multiparty democracy. Multiparty democracy increased checks and balances on government and reduced chances of investor abuse by political actors. Along with these changes, India began to dismantle a strict licensing regime that severely restricted the scope for private sector entry and competition.

China's evolution was more stark. After Mao Zedong's death the leaders of the Communist Party had to transform the party from a noninstitutionalized entity that placed few constraints on the top leadership to one in which 60 million party members could feel confident in the promises made to them by the leadership. Deng Xiaoping made deliberate decisions to institutionalize the party, with greater intraparty transparency regarding leadership decisions and greater transparency and credibility in leaders' treatment of party members. This permitted leaders to make credible promises to party members that would not have been possible before. One such promise—now enshrined in the performance objectives expected of governors and mayors—was bonuses and promotions for officials who encouraged economic growth in their jurisdictions. China went from being a country where career advancement of public officials depended on personal ties and the suppression of private economic initiative to one in which it depended more reliably on economic growth and the growth of private sector activity. The key lesson from China is that institutional change is crucial if policy reforms are to trigger growth. In the Chinese case institutionalization meant that leaders tied their own hands in the decisions they could make regarding the 60 million Communist Party members. This meant, for example, that leaders could not as easily give bonuses and promotions to close supporters who had failed to produce growth, at the expense of non-supporters who had. However, without these restraints on leader discretion, leaders could not have persuaded party officials to be at the forefront of the growth initiative—either authorizing investments themselves or supporting private investors who sought to set up shop in their jurisdictions.

The response of oil-producing MENA countries to the rise of China and India

5.31   The emergence of China and India as economic powers raises at least two sets of issues for MENA's oil producers. One is well known: how should MENA oil producers manage the increased revenues from the higher commodity demand triggered by China and India to minimize macroeconomic distortions and maximize long-run welfare? In particular, to what degree do oil producers avoid domestic consumption booms that come at the expense of high inflation and that place too little weight on future citizen welfare? These are standard questions, widely addressed elsewhere.[79] The focus here is thus on the second question: how can MENA's oil producers best utilize their oil revenue to spur productivity growth in the region and in their own countries?

5.32   *Investing in downstream activities.* A few MENA oil exporters have decided to participate in downstream petroleum activities located in major consumer countries, for reasons that range from the geopolitical (gaining the support of these countries for their proposals in international arenas), to technical capacity, to a diversification hedge against future depletion of their oil resources. Properly weighing the tradeoffs that the pursuit of these objectives entails is a key challenge for MENA's oil producers. For example, investments in distribution facilities are fixed and vulnerable to expropriation by consumer countries, particularly when oil prices rise. Oil-producing countries also need to weigh the tradeoff between investing their oil wealth in downstream petroleum sector activities or in other activities further removed from petroleum. One tradeoff is between comparative advantage (these countries know the oil sector better than other potential sectors) and diversification against a low-oil future. A world in which MENA's oil producers run low on oil is one in which oil, in general, is likely to be in much shorter supply. While returns to oil are likely to be high in that environment, the returns to downstream petroleum activities could fall, as consumers shift out of oil into other energy sources.

5.33   *Investing in big projects.* Most of the unprecedented oil wealth associated with the current boom in oil prices has gone to portfolio investments, as in the past. However, a larger share than in the past has gone to direct investments. Oil producers' direct investments in their own countries seem to have aimed directly at jumping straight from producing a commodity to creating an environment for sophisticated manufacturing and service enterprises. Dubai has established Media Cities wired for high-speed data transmission and has made well known and large investments to position itself as a gateway between East and West, between Europe and Asia. These have included not only the airport and logistics facilities famously associated with the emirate, but also more recent efforts to attract the largest Western financial institutions to set up shop. The King Abdullah Economic City in Saudi Arabia veers from the services model and retains a strong link with the kingdom's petroleum focus, but huge port and substantial manufacturing enterprises in the city, ranging from petrochemicals to pharmaceuticals, constitute a leap forward in scale and sophistication for the region. These efforts are a significant gamble. Investment banks have come to Dubai but will not stay without a substantial increase in activity. Traffic between Asia and Europe will be less likely to require the services of airports in the Middle East in the future (for example, with advent of bigger jetliners with greater ranges). But especially in places such as Dubai where the economic diversification is already very advanced, gambles may be worthwhile.

5.34   *Investing in people.* A greater challenge is to integrate the citizens of oil-producing countries into the 21st century enterprises being created. The long-term viability of these endeavors depends on a sophisticated workforce that wants to live in the region. Again, sizable investments in universities can generate local human capital capable of driving these large and sophisticated enterprises. But the agglomeration of talent and human capital characteristic of similar sectors in other cities and countries (finance in London and New York, pharmaceuticals in Switzerland, world-class universities in

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[79] For a classic discussion, see Gelb 1988.

Massachusetts and California) has taken place in settings with large communities of scientists and cities with social and political characteristics much different than those in Jeddah or Qatar.[80]

5.35 *Investing in the region*. Oil-producing countries' investments in their own countries look much different from their investments in nonoil-producing countries. Foreign direct investment is believed to be one of the main channels through which countries gain the advantages of foreign expertise, market access, and entrepreneurial skill.[81] However, much of the foreign direct investment into nonoil-producing MENA countries has been in real estate and tourism (Noland and Pack 2007). Investments in land simply raise the cost of doing business in nonoil-producing countries, making operations more difficult for local producers. Such investments, then, "export" the Dutch disease from oil-producing countries to nonoil-producing countries. This effect is added to that of the steady rise of immigrant remittances from the migrant workers that are employed in the Gulf countries.

5.36 The lack of greater direct investment from oil-producing to nonoil-producing MENA countries in productive areas is particularly surprising because cultural and other affinities play a significant role in foreign investment flows. Bottazzi, Da Rin, and Hellman (2007) find strong evidence that trust in the citizens of other countries is important in the investment decisions of venture capitalists in Europe.[82] One immediate implication of these results for MENA is that venture capital—and, most likely, foreign direct investment—should flow more easily within the region than from outside the region. The World Values Survey may provide an explanation for this, based on replies to the question do "citizens believe that others can be trusted"? The six MENA countries with results from the World Values Survey exhibit an average score of 31.5, compared with 42.8 for 18 larger Organization for Economic Co-operation and Development countries that have data and contain most of the world's financial centers (a difference of more than half of a standard deviation). By contrast, proximity and affinity did matter in China, and in fact a large share of foreign direct investment into China is from expatriate Chinese and from countries located close to China (Japan and Taiwan, for example).

5.37 Oil producers in the region have less technical expertise to share with the non-oil producers. They have the capacity to partner with foreign enterprises that do have such expertise, thereby catalyzing foreign direct investment that carries promising productivity advantages. The great, and so far unrealized, contribution that oil producers can make to the region's productivity growth is to use their capital and their greater ability to build bonds of affinity and to reduce "country risk" when it comes to investments in the region.

5.38 *Investing in Islamic financial institutions*. Islamic finance has grown dramatically in importance, but has not favored affinity-based investment as expected. The Islamic Development Bank in Jeddah and Western financial institutions has developed a multitude of sharia-compliant financial instruments. One estimate of deposits at Islamic banks puts the figure at $300 billion, while the IMF puts the assets of all Islamic financial institutions at $400 billion (Noland and Pack 2007). Current efforts to make some countries (particularly in the United Arab Emirates) into regional financial centers are another potential step toward more direct investment in neighboring, nonoil-producing countries. Unfortunately, despite these efforts, the substantial amount of capital they entail, and the natural advantages of investment between countries that share a cultural affinity, there is no evidence that this affinity is playing a role in

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[80] Glaeser and Ponzetto (2008) point to the significant interplay between technology, ideas production, and goods production in determining which cities succeed and fail.

[81] Portfolio investments by foreigners, distinct from foreign direct investment, can eventually drive up direct investment, but portfolio investments begin by simply raising the value of the assets of existing entrepreneurs. This potentially raises returns to capital for all investors, but the market response to this higher return depends on whether financial markets are adept at turning new capital into productive investments and on whether product markets themselves are open. If financial markets are not fluid or other barriers to entry are high, as is the case in the nonoil-producing MENA countries, portfolio investment does not spur new direct investment or productivity growth.

[82] That is, because the French trust the Spanish more than the British trust the Spanish, venture capitalists in France are more likely to invest in companies in Spain than are venture capitalists in the United Kingdom. Moreover, venture capital firms in both France and the United Kingdom are more likely to invest in Spain if they have a Spanish partner.

actual investment decisions. The clearest indication: Islamic financial institutions have as great or greater propensity to channel capital into the markets as non-Islamic countries compared with conventional financial institutions. The reason for this may simply be related to the investment climate in the nonoil-producing countries. Ties of affinity between the investor and target countries are not expected to overcome conditions in the target countries that substantially lower expected investment returns.

CONCLUSIONS

5.39   China and India have created new opportunities and challenges for all countries. This chapter has shown that an acceleration in their growth would result in further improvements in MENA's terms-of-trade and overall welfare. These gains are larger when the likely improvements in the quality and variety of exports from China and India are factored in. Oil-producing countries are the likely winners. By contrast, increased competition in third and domestic markets is likely to result in a decline of manufactured exports from nonoil-producing countries, challenging their growth prospects. All MENA countries, but particularly the labor-abundant non-oil producers, will face pressures to adjust their domestic and trade policies to increase competitiveness and cushion the effects on their non-energy sectors.

5.40   The most important lesson from China and India is the need to undertake a broad shift in policy and institutions toward a pro-growth environment. In both countries institutional changes gave entrepreneurs who had no personal relationship with political leaders the confidence to invest. In China embracing growth as a key political goal was manifested not only in specific reforms to liberalize entry but also in the way all Chinese public officials were compensated. In India the political imperative of pursuing fast growth increased when it became evident that this is what voters expected.

5.41   In the end, the main burden for increasing employment-generating investment in the nonoil-producing MENA countries falls to the nonoil-producing countries themselves. Through actions and reforms across a broad range of policy areas, they must demonstrate to foreign investors, and to their own domestic investors, that they are serious about growth. The specific reforms are not those that China or India undertook, but as in China and India they should be comprehensive enough to demonstrate commitment to a pro-growth strategy despite persistent disadvantages, such as small market sizes, about which they can do little.

5.42   Given the need for broad and deep reform, MENA countries have to choose which reforms to emphasize. While the specifics of Chinese and Indian reform do not offer strong guidance here, analysts and domestic entrepreneurs concur on the importance of financial sector reform, on the systematic removal of barriers to entry (such as those imposed by difficult access to land and continued high tariffs in many countries), and on a more reliable governance. Reforms of governance may require the broader institutional changes seen in China and India—and therefore may take more time. The horizon for financial and regulatory reforms is much shorter, suggesting a feasible, even pragmatic, reform agenda that can accelerate investment and productivity increases in the region.

ANNEX I: STATISTICAL INFORMATION

Table A1.1: Selected economic indicators

	2007		2005-2007					
	Population	GDP per capita	Real GDP	Export growth	Investment (gross)	Foreign investment (net)	Trade openness (export + Import)	Global competitiveness (2007-08 rank)
	(million)	(PPP)	(percent)			(percent of GDP)		(best 1; worst 131)
China	1,321	4,105	**11.4**	26.3	42.4	3.2	68.0	34
India	1,124	2,225	**9.2**	25.1	32.2	0.8	40.9	48
Algeria	34.4	6,019	**3.8**	4.5	31.7	1.0	68.6	81
Djibouti	0.8	1,860	**4.3**	-0.9	23.1	4.5	90.6	n/a
Egypt	73.6	4,611	**6.1**	23.9	17.9	3.8	61.9	77
Iran	70.9	9,326	**5.9**	-4.4	34.7	0.0	62.0	n/a
Jordan	5.7	4,322	**6.7**	9.0	24.6	8.9	141.9	49
Lebanon	3.8	9,515	**0.7**	10.7	21.2	10.4	64.7	n/a
Morocco	30.7	3,618	**3.8**	6.7	25.7	2.3	78.7	64
Syria	19.4	4,010	**4.5**	13.3	21.2	1.3	66.5	80
Tunisia	10.3	6,404	**5.2**	5.0	23.8	2.3	101.4	32
Yemen	22.3	2,179	**3.7**	n/a	n/a	-0.3	n/a	n/a
Bahrain	0.8	32,559	**6.8**	n/a	22.7	n/a	146.6	43
Kuwait	3.3	42,465	**6.6**	5.8	18.8	0.2	93.8	30
Oman	2.6	19,907	**6.9**	14.1	17.8	0.8	99.7	42
Qatar	0.9	70,084	**10.1**	n/a	34.4	n/a	97.0	31
Saudi Arabia	24.3	21,119	**5.3**	n/a	17.6	n/a	82.3	35
UAE	4.5	32,787	**8.1**	11.2	23.4	n/a	167.8	37

Source: World Bank; World Economic Forum; IMF database

Note: Figures for MENA countries are 2007 estimates (2006 data for China and India); n/a: not available.

Table A1.2: MENA's trade, 2006

(US$ million)

	MENA- World	MENA - China	MENA - India
Exports of goods & services	839,926	53,872	68,728
Merchandise exports	644,364	41,329	44,416
Energy	538,696	35,941	37,508
Manufactures	76,975	4,658	4,926
Imports of goods & services	427,087	36,389	19,124
Merchandise imports	240,073	16,590	13,924
Source: Comtrade, WB's GDF; IMF's Direction of Trade statistics			
Note: Merchandise imports data for India refer to 2005 data			

Table A1.3: Total energy exports from MENA to China and India, 1997–2006

(US$ million)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Algeria	4	0	94	140	159	223	210	485	730	551
Bahrain	41	134	113	83	71	74	96	199	270	296
Egypt	208	192	489	254	224	345	368	324	525	1,511
Iran	1,296	1,303	2,252	3,518	3,712	3,802	4,432	6,679	10,063	14,730
Iraq	219	211	317	2,371	999	1,968	2,179	3,195	4,653	5,270
Kuwait	970	692	1,236	1,362	1,828	2,216	2,355	3,343	4,592	6,983
Libya	11	25	16	50	74	28	60	430	1,014	1,774
Oman	1,300	704	680	3,314	1,611	1,446	2,014	4,366	4,121	6,246
Qatar	24	13	144	701	580	494	755	746	1,340	1,924
Saudi Arabia	2,523	2,067	3,110	4,169	4,653	5,573	8,119	12,337	18,891	23,848
Syria	0	0	5	20	18	34	43	36	55	65
UAE	1,232	901	1,668	1,620	1,493	1,472	1,860	3,196	4,743	6,548
Yemen	657	523	936	1,366	1,003	1,122	2,357	2,426	4,077	3,703

Source: UN Comtrade

Table A1.4: MENA's merchandise imports from China and India, 2006

MENA's imports from China							
			Manufactures			Total imports from China	Share of world imports
	Food	Fuels	Total	Machinery & Transport Equipment	Textiles		
Bahrain	11	45	266	89	37	330	3.7
Algeria	55	11	1,621	975	107	1,708	8.0
Egypt	56	7	1,094	468	133	1,199	5.8
Iran	20	43	2,292	1,384	64	2,457	6.0
Jordan	53	0	1,121	336	443	1,196	10.5
Morocco	99	13	1,132	629	195	1,260	5.4
Oman	25	0	331	199	16	368	3.4
Qatar	9	0	922	394	101	957	5.8
Saudi	113	8	5,736	2,258	1,237	5,979	8.6
Syria	19	1	721	334	73	747	6.5
Yemen	36	0	345	97	49	389	7.9
Tunisia	4	0	366	203	55	381	2.9

MENA's imports from India							
			Manufactures			Total Imports from India	Share of world imports
	Food	Fuels	Total	Machinery & Transport Equipment	Textiles		
Bahrain	35	0	94	22	27	137	1.5
Algeria	30	0	390	176	11	423	2.0
Egypt	46	57	214	71	45	356	1.7
Iran	27	814	593	124	31	1,493	3.7
Jordan	76	0	91	17	14	177	1.5
Morocco	8	1	168	55	64	184	0.8
Oman	74	2	391	147	17	578	5.3
Qatar	53	1	351	139	42	451	2.7
Saudi	634	6	1,367	339	296	2,634	3.8
Syria	13	141	170	51	67	361	3.1
Yemen	56	0	108	14	7	167	3.4
Tunisia	8	0	76	10	29	103	0.8

Note: The figures for Tunisia refer to 2005 data.
Food figures are based on SITC 0+1+22+4; SITC 3 for Fuels; SITC 26+65+84 for Textiles.
Food (SITC 0: Live animals chiefly for food; 1: Meat and meat preparations; 22: Oil seeds and oleaginous fruit; 4: Cereals and cereal preparations).
Fuels (32: Coal, coke and briquettes; 33: Petroleum, petroleum products ; 34: Gas, natural and manufactured; 35:Electric current).
Textiles (26: Textile fibers; 65: Textile yarn, fabrics; 84: Articles of apparel & clothing).
Source: UN Comtrade.

Table A1.5: MENA's merchandise exports to China and India, 1995 and 2006
(by product)

	Exports to China		Exports to India		Exports to China		Exports to India	
	1995	2006	1995	2006	1995	2006	1995	2006
	(in millions of US dollars)				(share to total exports)			
Total Trade	2,165	41,329	4,940	44,416	100	100	100	100
Mineral fuels, lubricants and related materials								
33 Petroleum, petroleum products	1,113	33,355	2,788	33,545	51.4	80.7	56.4	75.5
34 Gas, natural and manufactured	250	1,993	130	2,456	11.6	4.8	2.6	5.5
32 Coal,coke and briquettes	0	0	1	6	0.0	0.0	0.0	0.0
Manufactured goods classified chiefly by materials								
66 Non-metallic mineral manufactures	2	3	3	773	0.1	0.0	0.1	1.7
68 Non-ferrous metals	31	223	127	410	1.5	0.5	2.6	0.9
67 Iron and steel	23	17	31	241	1.1	0.0	0.6	0.5
69 Manufactures of metal, n.e.s.	6.3	2.3	2.5	67.0	0.3	0.0	0.0	0.2
61 Leather,leather manuf.,n.e.s.	1.9	13.9	2.9	56.1	0.1	0.0	0.1	0.1
65 Textile yarn, fabrics, made-upart., etc.	0.6	14.5	3.6	22.3	0.0	0.0	0.1	0.1
64 Paper, paperboard, artic.of paper, pap	0.1	0.7	2.8	10.2	0.0	0.0	0.1	0.0
62 Rubber manufactures, n.e.s.	0.1	0.2	0.2	8.5	0.0	0.0	0.0	0.0
Chemicals & related products								
52 Inorganic chemicals	22	27	508	967	1.0	0.1	10.3	2.2
51 Organic chemicals	28	2289	201	778	1.3	5.5	4.1	1.8
56 Fertilizers,manufactured	383	109	356	672	17.7	0.3	7.2	1.5
58 Artif.resins,plastic mat.,cellulose	187	1852	108	346	8.7	4.5	2.2	0.8
59 Chemical materials and products, n.e	0	2	1	36	0.0	0.0	0.0	0.1
55 Essential oils & perfume mat.; toile	0.0	1.3	0.1	7.9	0.0	0.0	0.0	0.0
53 Dyeing,tanning and colouring materials	0.0	13.8	0.3	5.8	0.0	0.0	0.0	0.0
54 Medicinal and pharmaceutical products	0.0	0.8	5.1	4.1	0.0	0.0	0.1	0.0
Crude materials, inedible, except fuels								
28 Metalliferous ores and metal scrap	76	556	143	835	3.5	1.3	2.9	1.9
27 Crude fertilizers and crude materials	4	419	212	454	0.2	1.0	4.3	1.0
26 Textile fibres (except wool tops)	22	95	19	63	1.0	0.2	0.4	0.1
25 Pulp and waste paper	0	1	26	49	0.0	0.0	0.5	0.1
21 Hides, skins and furskins, raw	1	0	3	13	0.0	0.0	0.1	0.0
23 Crude rubber	4	7	0	11	0.2	0.0	0.0	0.0
Machinery and transport equipment								
79 Other transport equipment	0	0	5	296	0.0	0.0	0.1	0.7
76 Telecommunications & sound recording	0	0	1	289	0.0	0.0	0.0	0.7
72 Machinery specialized	0	1	6	70	0.0	0.0	0.1	0.2
77 Electrical machinery, apparatus & ors	1	292	34	49	0.0	0.7	0.7	0.1
74 General industrial machinery & equip.	0	3	3	23	0.0	0.0	0.1	0.1
71 Power generating machinery and equip.	0	0	1	8	0.0	0.0	0.0	0.0
75 Office machines & automatic data …	0	0	1	6	0.0	0.0	0.0	0.0
78 Road vehicles	0	0	7	5	0.0	0.0	0.1	0.0
Food & Live animals								
05 Vegetables and fruit	1	13	31	85	0.0	0.0	0.6	0.2
07 Coffee, tea, cocoa, spices, manufacture	0	0	0	6	0.0	0.0	0.0	0.0
04 Cereals and cereal preparations	0	0	0	2	0.0	0.0	0.0	0.0
03 Fish, crustaceans, mollucs, preparations	4	9	0	1	0.2	0.0	0.0	0.0

Source: UN Comtrade.

Figure A1.1: MENA's oil exports by destinations, 1997 and 2006 (percent)
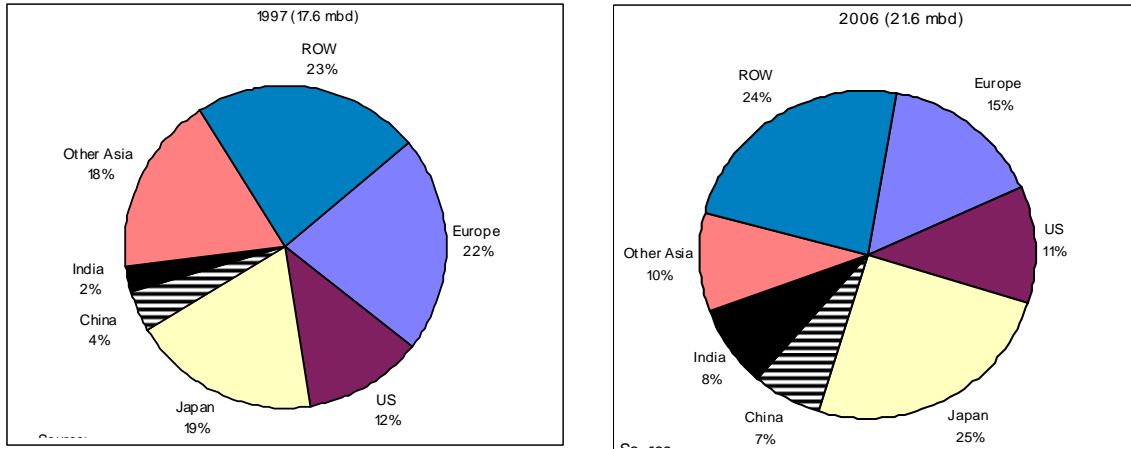
Source: UN Comtrade

Figure A1.2: MENA's gas exports by destinations, 1997 and 2006 (percent)
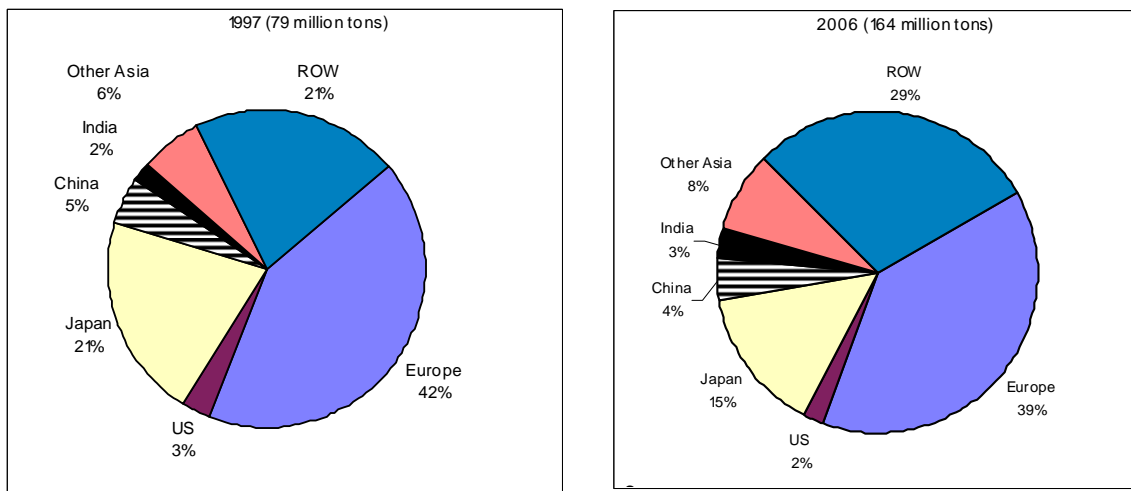
Source: UN Comtrade

Table A1.6: Exports growth regression

Export supply effect *(dimports)*	0.4077a (66.80)	Export supply effect *(dimports)*	0.4077a (61.75)
China Export effect *(dchina)*	-0.1753a (8.83)	India Export effect *(dindia)*	-0.0867a (3.42)
R-squared	0.17	R-squared	0.18
Observations	497410	Observations	439880
Dummies	65564	Dummies	54566

Note: The regressions include 4-digit product and year effects. The estimates thus rely entirely on cross-market variation in Chinese/Indian import penetration in a given product. Robust t-statistics are shown in bracket
Source: Staff calculations

Table A1.7: RCAs regression

	Labor-abundant	GCC		Labor-abundant	GCC
RCA China	0.206 (18.17)	**-0.035** (2.75)	Primary*RCA China	0.199a	*-0.123a*
RCA India	0.044 (3.69)	**-0.066** (5.21)	Natural resources*RCA China	n.s.	n.s.
Bilateral net exports to China	4.11e-05 (6.46)	1.25e-05 (7.11)	Unsk lab*RCA China	0.145a	*-0.113a*
Bilateral net exports to India	2.12e-05 (4.43)	1.29e-05 (8.87)	Technology*RCA China	0.052a	**0.080a**
			Skilled lab*RCA China	0.251a	**0.130a**
Constant	-0.819 (6.87)	-1.314 (11.84)	Primary*RCA India	*-0.132a*	*-0.173a*
Year effects	yes	yes			
Country effect	yes	yes	Natural resources *RCA India	0.179a	*-0.074b*
Observations	20529	10080			
R-squared	0.19	0.20	Unsk lab*RCA India	0.411a	**0.225a**
			Technology*RCA India	*-0.151a*	*-0.108a*
			Skilled lab*RCA India	0.174a	**0.050a**

Note: Absolute value of t-statistics are shown in brackets. Stands for statistical significance
Source: Staff calculations.

Table A1.8: Share of re-exports in total exports

Product name	Labor-Abundant	GCC	United Arab Emirates	Bahrain	Oman	Qatar	Saudi Arabia	Share in re-export	Share in export
Food & Live animals	**1.1**	**34.3**	**58**	**20.5**	**6.3**	**48.2**	**8.3**	**2.2**	**0.7**
Vegetables and fruit	0.3	48.9	83.8	46.4	9.1	69.1	8.6	0.7	0.1
Crude materials	**0.3**	**32.4**	**43.1**	**0.5**	**20.6**	**25.7**	**32.0**	**4.3**	**0.3**
Textile fibers (other than wool tops and other combined wool) and their wastes (not manufactured into yarn or fabric)	0.4	71.8	95.9	0.1	91.4	99.9	37.9	0.9	0.0
Metalliferous ores and metal scrap	0.2	25.0	29.0	0.4	42.3	2.1	67.8	2.8	0.2
Chemicals	**1.3**	**6.1**	**47.4**	**5.2**	**6.7**	**0.6**	**0.7**	**2.2**	**5.2**
Essential oils and resinoids and perfume materials; toilet, polishing and cleansing preparations	3.0	54.5	81.2	38.5	34.1	47.6	6.5	0.7	0.2
Manufactured	**1.0**	**57.4**	**84.5**	**2.4**	**9.5**	**56.5**	**8.0**	**8.0**	**2.0**
Textile yarn, fabrics, made-up articles, n.e.s., and related products	1.0	76.3	93.6	5.6	75.2	95.0	8.5	0.6	0.1
Non-metallic mineral manufactures, n.e.s.	0.6	81.9	92.1	34.4	1.7	22.3	4.1	0.6	0.2
Iron and steel	0.7	29.7	78.0	13.3	6.5	49.3	7.7	3.4	0.4
Non-ferrous metals	0.4	33.2	63.0	0.1	1.3	82.6	9.1	0.7	0.6
Manufactures of metal, n.e.s.	2.3	48.1	81.0	36.6	15.8	90.5	11.9	1.9	0.3
Machinery & Transport	**9.0**	**91.4**	**97.6**	**78.7**	**66.1**	**99.1**	**72.3**	**74.3**	**1.7**
Power-generating machinery and equipment	25.2	96.3	99.8	99.9	100.0	100.0	83.9	2.9	0.1
Machinery specialized for particular industries	22.2	96.0	97.8	99.8	99.9	99.9	87.4	4.8	0.1
General industrial machinery and equipment, n.e.s., and machine parts, n.e.s.	12.7	68.1	88.3	23.6	81.4	95.9	34.4	3.2	0.2
Telecommunications and sound-recording and reproducing apparatus and equipment	35.3	99.8	100.0	100.0	100.0	100.0	88.6	1.7	0.0
Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof	0.7	65.6	93.9	56.0	11.0	95.8	15.5	1.8	0.3
Road vehicles (including air-cushion vehicles)	19.5	96.2	97.5	97.8	100.0	99.8	89.9	26.3	0.5
Other transport equipment	45.3	98.2	89.5	17.6	99.7	99.2	99.9	32.7	0.5
Miscellaneous	**0.9**	**75.3**	**86.7**	**13.0**	**31.1**	**52.5**	**36.9**	**7.5**	**0.4**
Furniture and parts thereof; bedding, mattresses, mattress supports, cushions, and similar stuffed furnishings	4.7	72.9	86.8	7.0	6.4	88.1	57.2	0.7	0.0
Articles of apparel and clothing accessories	0.2	70.6	81.9	1.6	41.2	8.3	81.0	1.2	0.1
Professional, scientific and controlling instruments and apparatus, n.e.s.	18.2	97.8	99.0	99.3	99.5	99.7	92.3	1.3	0.0
Miscellaneous manufactured articles, n.e.s.	3.3	69.0	83.9	13.2	20.5	83.6	20.2	3.4	0.3
Total	**0.6**	**8.9**	**22.9**	**2.7**	**7.4**	**1.6**	**1.6**	**100**	**100**
Total without sitc 3	0.9	54.1	85.9	11.2	22.7	22.3	15.1	99.9	20.9

Source: UN Comtrade.

Table A1.9: RCAs in labor-abundant countries, China and India: Top commodities, 2005

	Code	Product	Labor Abudant	China	India	
		Food & Live animals				
1	36	Crustaceans and mollusks, fresh, chilled	5.41	5.46	0.49	Food
2	57	Fruit & nuts(not includ. oil nuts),	2.93	-0.07	-0.13	Food
3	35	Fish, dried, salted or in brine, smoked	2.72	4.74	1.07	Food
4	37	Fish, crustaceans and mollusks, prepa	2.67	5.68	4.51	Food
5	56	Vegetable, roots & tubers, prepared/pr	2.65	3.40	3.89	Food
6	75	Spices	2.28	0.85	2.85	Food
7	58	Fruit, preserved, and fruit preparation	2.20	2.05	2.27	Food
8	54	Vegetable, fresh, chilled, frozen/pres.	2.04	-0.86	1.51	Food
9	34	Fish, fresh (live or dead),chilled o	1.97	3.02	0.09	Food
10	25	Eggs and yolks, fresh, dried or other	1.35	4.76	5.09	Food
		Crude material				
1	289	Ores & concentrates of precious met	8.53	1.88	1.25	Crude
2	244	Cork, natural, raw & waste	5.47	-3.12	-1.49	Crude
3	271	Fertilizers, crude	5.25	-4.79	2.97	Crude
4	211	Hides and skins (except fur skins),	4.01	-4.48	-3.96	Crude
5	288	Non-ferrous base metal waste and sc	3.14	-3.71	-3.68	Crude
6	291	Crude animal materials, n.e.s.	2.86	1.24	1.10	Crude
7	263	Cotton	2.78	-1.46	-2.42	Crude
8	273	Stone, sand and gravel	2.45	1.74	-1.10	Crude
9	265	Vegetable, textile, fibers, and waste	2.25	-0.55	-3.44	Crude
10	282	Waste and scrap metal of iron or steel	2.03	-5.17	-4.22	Crude
		Chemicals				
1	522	Inorganic chemical elements, oxides	2.61	-2.58	0.34	Technology
2	562	Fertilizers, manufactured	2.59	-4.73	-1.98	Technology
3	512	Alcohols, phenols, phenol-alcohols,&	2.07	-1.03	-3.14	Technology
4	512	Alcohols, phenols, phenol-alcohols,&	1.71	-0.64	-2.74	Technology
5	511	Hydrocarbons nes, & their halogen.&	1.66	-0.96	-2.87	Technology
6	554	Soap, cleansing and polishing prepar	0.57	-0.76	-1.13	Skilled Labor
7	523	Other inorganic chemicals	0.39	-0.52	0.79	Technology
8	551	Essential oils, perfume and flavor	0.33	0.89	-0.63	Skilled Labor
9	553	Perfumery, cosmetics and toilet prep	0.06	0.64	1.32	Skilled Labor
		Manufactured goods				
1	659	Floor coverings, etc.	4.32	3.85	2.52	Unskilled Labor
2	633	Cork manufactures	3.72	-0.29	-0.10	Natural Resources
3	689	Miscell. non-ferrous base metals emp	2.74	-2.45	1.34	Natural Resources
4	658	Made-up articles, wholly/chiefly of	2.58	3.74	4.70	Unskilled Labor
5	685	Lead	2.35	-4.42	1.76	Natural Resources
6	667	Pearls, precious& semi-prec. stones,u	2.31	-0.01	-0.86	Natural Resources
7	612	Manufactures of leather/of composit	2.13	2.52	0.83	Natural Resources
8	613	Fur skins, tanned/dressed, pieces/cutt	1.93	-1.44	1.04	Natural Resources
9	661	Lime, cement, and fabricated construc.	1.78	2.96	2.46	Natural Resources
10	611	Leather	1.51	0.87	-1.57	Natural Resources

	Equipment & Machines					
1	773	Equipment for distributing electric	1.94	-0.55	0.51	Technology
2	776	Thermionic, cold & photo-cathode val	1.75	-1.60	-2.03	Technology
3	771	Electric power machinery and parts	0.46	0.07	0.85	Technology
4	772	Elect. app. such as switches, relays, f	0.36	-0.77	-0.45	Technology
5	793	Ships, boats and floating structures	0.15	-4.25	-0.14	Unskilled Labor
	Miscelleneous manufact					
1	842	Outer garments, men's, of textile fab	4.19	4.23	4.03	Unskilled Labor
2	843	Outer garments, women's, of textile f	4.04	6.03	4.08	Unskilled Labor
3	896	Works of art, collectors pieces & an	3.77	3.42	3.48	Skilled Labor
4	844	Under garments of textile fabrics	3.63	4.80	3.17	Unskilled Labor
5	845	Outer garments and other articles,	3.35	5.03	3.59	Unskilled Labor
6	846	Under garments, knitted or crocheted	3.10	5.25	4.24	Unskilled Labor
7	897	Jewellery, goldsmiths and other art.	2.67	2.93	2.50	Skilled Labor
8	851	Footwear	2.63	3.42	5.80	Unskilled Labor
9	951	Armored fighting vehicles, arms of	2.15	2.81	4.28	Technology
10	848	Art. of apparel & clothing accessories	1.55	4.15	4.36	Unskilled Labor

Source: UN Comtrade.

Table A1.10: Top 20 commodities with high RCAs in labor-abundant countries, 1995 and 2005

	Code	Product	RCA	Category	Code	Product	RCA	Category
1	271	Fertilizers, crude	8.09	Crude	289	Ores & concentrates of precious met	9.70	Crude
2	36	Crustaceans and mollusks, fresh, …	7.49	Food	271	Fertilizers, crude	5.56	Crude
3	289	Ores & concentrates of precious metals	7.17	Crude	333	Petrol, oils, crude,& c.o. obtain. from	4.99	Energy
4	896	Works of art, collector's pieces & ant.	5.92	SkLab	36	Crustaceans and mollusks, fresh, chilled	4.92	Food
5	244	Cork, natural, raw & waste	5.63	Crude	288	Non-ferrous base metal waste …	4.43	Crude
6	659	Floor coverings, e tc.	5.48	UnskLab	842	Outer garments, men's, textile fab.	4.22	Unskilled Labor
7	291	Crude animal materials, n.e.s.	5.37	Crude	659	Floor coverings, etc.	4.17	UnskLab
8	333	Petrol, oils, crude,& c.o.	5.27	Energy	843	Outer garments, women's, textile fab.	4.13	UnskLab
9	667	Pearls, precious& semi-prec. stones, …	5.05	NatRes	244	Cork, natural, raw & waste	3.97	Crude
10	288	Non-ferrous base metal waste …	4.85	Crude	844	Under garments of textile fabrics	3.75	UnskLab
11	843	Outer garments, women's, of textile …	4.68	UnskLab	633	Cork manufactures	3.70	NatRes
12	844	Under garments of textile fabrics	4.49	UnskLab	845	Outer garments and other articles	3.43	UnskLab
13	842	Outer garments, men's, of textile fabrics	4.20	UnskLab	341	Gas, natural and manufactured	3.37	Energy
14	633	Cork manufactures	3.87	NatRes	846	Under garments, knitted or crocheted	3.26	UnskLab
15	57	Fruit & nuts(not includ. oil nuts),	3.83	Food	667	Pearls, precious& semi-prec. stones, …	3.04	NatRes
16	897	Jewellery, goldsmiths and other art.	3.79	SkLab	689	Miscel. non-ferrous base metals	2.92	SkLab
17	211	Hides and skins (except fur skins)…	3.77	Crude	37	Fish, crustaceans and molluscs, prepa	2.81	Food
18	845	Outer garments and other articles,…	3.69	UnskLab	57	Fruit & nuts(not includ. oil nuts),	2.78	Food
19	334	Petroleum products, refined	3.62	Energy	211	Hides and skins (except fur skins),	2.72	Crude
20	851	Footwear	3.60	UnskLab	522	Inorganic chemical elements, oxides	2.68	Technology

Source: UN Comtrade.

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Table A1.11: Top 20 commodities with high RCAs in GCC countries, 1995 and 2005

	1995				2005			
	Code	**Product**	**RCA**	**Category**	**Product**	**Product**	**RCA**	**Category**
1	341	Gas, natural and manufactured	8.52	Energy	333	Petrol. oils, crude,& c.o.	13.51	Energy
2	274	Sulphur and unroasted iron pyrites	7.51	Crude	341	Gas, natural and manufactured	9.50	Energy
3	333	Petrol. oils, crude,& c.o.	6.99	Energy	274	Sulphur and unroasted iron pyrites	7.66	Crude
4	289	Ores & concentrates of precious met	6.85	Crude	289	Ores & concentrates of precious metals	5.45	Crude
5	334	Petroleum products, refined	5.97	Energy	334	Petroleum products, refined	5.08	Energy
6	282	Waste and scrap metal of iron or st	5.74	Crude	212	Furskins, raw (includ. astrakhan, cara	4.42	Crude
7	512	Alcohols, phenols, phenol-alcohols,&	5.39	Technology	512	Alcohols, phenols, phenol-alcohols,&	4.33	Technology
8	288	Non-ferrous base metal waste and sc	5.35	Crude	667	Pearls, precious& semi-prec. Stones …	4.23	Nat Res
9	211	Hides and skins (except fur skins),	4.92	Crude	288	Non-ferrous base metal waste and sc	3.92	Crude
10	562	Fertilizers, manufactured	4.52	Technology	562	Fertilizers, manufactured	3.44	Technology
11	667	Pearls, precious& semi-prec. stones	4.36	Nat Res	611	Leather	3.25	Nat Res
12	681	Silver, platinum & other metals	4.27	Nat Res	516	Other organic chemicals	3.15	Technology
13	268	Wool and other animal hair	3.98	Crude	613	Fur skins, tanned/dressed, pieces/…	3.14	Nat Res
14	516	Other organic chemicals	3.95	Technology	211	Hides and skins (except fur skins),	3.04	Crude
15	611	Leather	3.93	Nat Res	282	Waste and scrap metal of iron	2.80	Crude
16	261	Silk	3.59	Crude	268	Wool and other animal hair	2.75	Crude
17	351	Electric current	3.43	Energy	511	Hydrocarbons nes, & their halogen.	2.52	Technology
18	511	Hydrocarbons nes, & their halogen…	3.40	Technology	583	Polymerization and copolymerization	2.49	Technology
19	35	Fish, dried, salted or in brine ; …	3.33	Food	261	Silk	2.26	Crude
20	36	Crustaceans and mollusks, fresh, …	3.09	Food	36	Crustaceans and mollusks, fresh…	1.87	Food

Source: UN Comtrade.

Table A1.12: Labor-abundant countries: Products with high RCAs

And associated fastest growing imports from China and India

	Code	Product	LAs' RCA	Share to total LAs'	Growth of imports from China and India	Growth of imports from world	Imports from China and India to total imports	Category
			2005	2005	2000-05	2000-05	2005	
1	843	Outer garments, women's, textile fab.	4.04	6.69	27.0	1.0	27.0	Unskilled Labor
2	842	Outer garments, men's, textile fab	4.19	5.22	10.0	-2.0	29.7	Unskilled Labor
3	57	Fruit & nuts(not includ. oil nuts),	2.93	4.69	17.0	16.0	3.0	Food
4	845	Outer garments and other articles, …	3.35	3.97	17.0	6.0	24.6	Unskilled Labor
5	562	Fertilizers,manufactured	2.59	3.94	24.0	19.0	2.2	Technology
6	522	Inorganic chemical elements,oxides	2.62	3.92	19.0	-4.0	8.2	Technology
7	773	Equipment for distributing electricity	1.94	3.82	21.0	12.0	4.8	Technology
8	54	Vegetab.,fresh,chilled,frozen/pres.	2.04	2.83	9.0	2.0	11.2	Food
9	776	Thermionic,cold & photo-cathode …	1.75	2.72	53.0	11.0	9.4	Technology
10	271	Fertilizers,crude	5.25	2.70	46.0	-7.0	0.6	Crude materials
		Top 10 exports (to total exports)		**40.5**				
11	672	Ingots and other primary forms	0.38	2.52	40.0	34.0	2.4	Skilled Labor
12	661	Lime,cement,and fabricated construc.	1.78	1.85	19.0	7.0	6.6	Natural Resources
13	36	Crustaceans and molluscs, fresh, ...	5.41	1.63	34.0	18.0	8.2	Food
14	659	Floor coverings,etc.	4.32	1.61	15.0	2.0	12.2	UnskLab
15	772	Elect.app.such as switches, relays…	0.36	1.60	28.0	11.0	5.2	Technology
16	511	Hydrocarbons nes, & their halogen…	1.66	1.15	64.0	34.0	7.5	Technology
17	684	Aluminium	1.07	1.15	39.0	17.0	7.7	NatRes
18	263	Cotton	2.78	1.09	51.0	6.0	0.2	Crude materials
19	282	Waste and scrap metal of iron …	2.03	1.09	48.0	28.0	0.1	Crude materials
20	793	Ships,boats and floating structures	0.15	1.03	87.0	32.0	4.7	Unskilled Labor

Source: UN Comtrade.

Table A1.13: GCC countries: Products with high RCAs

And associated fastest growing imports from China and India

	Code	Product	RCA	Share to total GCC' Exports	Growth of imports from China and India	Growth of imports from world	Imports from China and India to total imports
				%	%	%	%
			2005	2005	2000-05	2000-05	2005
1	583	Polymerization and copolymerization	2.46	12.1	12.9	3.3	5.9
2	764	Telecommunications equipment	0.69	6.3	12.2	8.9	6.5
3	562	Fertilizers,manufactured	3.37	2.4	11.5	1.0	8.6
4	752	Automatic data processing machines	0.18	0.9	53.5	7.9	41.6
5	274	Sulphur and unroasted iron pyrites	9.46	0.9	7.8	-52.7	9.2
6	665	Glassware	2.05	0.8	10.2	-16.5	27.9
7	759	Parts of and accessories suitable …	0.02	0.7	26.9	-7.3	22.2
8	691	Structures & parts of struc.;iron…	0.38	0.7	20.4	0.7	11.9
9	582	Condensation, polycondensation & …	0.63	0.7	29.1	8.2	12.8
10	642	Paper and paperboard,cut to size	0.42	0.6	0.9	-5.2	6.7
11	661	Lime, cement, and fabricated construct..	0.22	0.5	13.5	-5.4	24.0
12	533	Pigments,paints,varnishes & related	0.53	0.5	1.3	-5.7	3.7
13	776	Thermionic,cold & photo-cathode …	1.33	0.3	2.7	-9.8	7.7
14	692	Metal containers for storage	0.35	0.3	20.7	1.1	7.0
15	273	Stone,sand and gravel	1.46	0.3	18.7	-17.4	22.8
16	111	Non alcoholic beverages, n.e.s.	0.41	0.2	17.2	-4.8	0.5
17	664	Glass	0.18	0.2	15.8	-1.4	22.0
18	423	Fixed vegetable oils,soft,crude	0.37	0.2	21.6	8.4	0.4
19	694	Nails,screws,nuts,bolts etc.of iron	0.32	0.2	8.7	0.4	34.7
20	635	Wood manufactures, n.e.s.	0.61	0.2	9.5	-4.0	24.2

Source: UN Comtrade.

Table A1.14: Labor-abundant countries: Slowest growing exports to China and India (percent)

	Code	Product	Labor abundants' exports to China — Share of LAs' exports to the 2005	Labor abundants' exports to China — Share of China's total imports 2005	Labor abundants' exports to China — Share of China's total imports 2000-2005	Category
1	287	Ores and concentrates of base metal	37.74	2.29	-12	Crude materials
2	522	Inorganic chemical elements, oxides	35.83	32.97	-4	Technology
3	512	Alcohols, phenols, phenol-alcohols	31.2	1.73	-18	Technology
4	233	Synth. rubb. lat.;synth. rubb….	27.57	0.59	-11	Crude materials
5	689	Miscell.non-ferrous base metals	13.19	1.65	-22	Natural Resources
6	511	Hydrocarbons nes,& their halogen	11.9	3.81	-10	Technology
7	684	Aluminium	10.56	16.6	-4	Natural Resources
8	562	Fertilizers,manufactured	6.5	4.4	0	Technology
9	686	Zinc	5.06	0.65	-46	Natural Resources
10	659	Floor coverings,etc.	0.31	4.47	-4	Unskilled Labor
11	281	Iron ore and concentrates	0.27	0.22	-21	Crude materials
12	73	Chocolate & other food prep.	0.15	0.05	-56	Food
13	651	Textile yarn	0.06	0.07	-7	Unskilled Labor
14	812	Sanitary, plumbing, heating, lighting	0.06	0.17	-32	Unskilled Labor
15	671	Pig iron, spiegeleisen, sponge iron	0.03	0.01	-80	Natural Resources
16	62	Sugar confectionery and other sugar	0.02	0.01	-17	Food
17	291	Crude animal materials	0.02	0.01	-43	Crude materials

Source : Comtrade

	Code	Product	Labor abundants' exports to China — Share of LAs' exports to world 2005	Labor abundants' exports to China — Share of China's total imports 2005	Labor abundants' exports to China — Share of China's total imports 2000-2005	Category
1	522	Inorganic chemical elements,oxides	35.83	32.97	-4	Technology
2	511	Hydrocarbons nes,& their halogen	11.9	3.81	-10	Technology
3	512	Alcohols,phenols,phenol-alcohols	11.84	5.68	-4	Technology
4	684	Aluminium	10.56	16.6	-4	Natural Resources
5	281	Iron ore and concentrates	0.27	0.22	-21	Crude
6	651	Textile yarn	0.06	0.07	-7	Unskilled labor
7	812	Sanitary,plumbing,heating,lighting	0.06	0.17	-32	Unskilled labor
8	635	Wood manufactures	0.01	0.02	-61	Natural Resources

Source : Comtrade

Table A1.15: Labor-abundant countries: Fastest growing exports to China and India (percent)

	Code	Product	Labor abundants' exports to China — Share of Labor abundants' exports to the world	Labor abundants' exports to China (=Chinese imports from LA) — Share of China's total imports		Category
			2005	2005	2000-2005	
1	265	Vegetable textile fibres and waste	54.7	6.29	1.7	Crude materials
2	273	Stone,sand and gravel	49.8	17.05	1.2	Crude materials
3	513	Carboxylic acids,& their anhydrides	42.7	0.18	21.8	Technology
4	583	Polymerization and copolymerization	18.8	0.30	18.9	Technology
5	776	Thermionic,cold & photo-cathode val	18.8	0.20	8.7	Technology
6	514	Nitrogen-function compounds	14.1	0.27	8.0	Technology
7	672	Ingots and other primary forms	10.2	1.22	14.2	Skilled labor
8	288	Non-ferrous base metal waste	8.8	0.39	235.1	Crude materials
9	682	Copper	8.0	0.30	44.0	Natural Resources
10	582	Condensation,polycondensation	5.3	0.04	71.7	Technology
11	532	Dyeing & tanning extracts	4.7	0.01	289.9	Skilled labor
12	611	Leather	3.6	0.16	6.7	Natural Resources
13	278	Other crude minerals	3.4	0.39	39.0	Crude materials
14	692	Metal containers for storage	3.3	0.18	75.5	Skilled labor
15	554	Soap,cleansing & polishing prepar	2.5	0.14	362.9	Skilled labor
16	592	Starches,inulin & wheat gluten	2.3	0.01	61.7	Technology
17	654	Textil.fabrics,woven,oth.than cotto	2.2	0.01	78.2	Unskilled labor
18	743	Pumps & compressors,fans & blowers,	1.9	0.01	58.9	Technology
19	742	Pumps for liquids,liq.elevators	1.8	0.00	132.7	Technology
20	634	Veneers,plywood,improved or reconst	1.3	0.08	253.0	Natural Resources

Source: Comtrade

	Code	Product	Labor abundants' exports to India — Share to Labor abundants' exports to the world	Labor abundants' exports to India — Share of India's imports from Labor abundant to India's total imports		Category
			2005	2005	2000-2005	
1	274	Sulphur and unroasted iron pyrites	51.5	29.7	4.7	Crude materials
2	686	Zinc	48.2	11.4	24.4	
3	513	Carboxylic acids,& their anhydrides	34.7	1.4	111.8	Technology
4	674	Universals,plates and sheets,of iron	24.5	1.4	120.9	Skilled labor
5	288	Non-ferrous base metal waste …	16.7	4.0	17.5	Crude materials
6	263	Cotton	11.9	16.8	38.8	Crude materials
7	611	Leather	10.7	8.0	3.4	Natural Resources
8	282	Waste and scrap metal of iron	10.1	3.1	7.7	Crude materials
9	672	Ingots and other primary forms	9.4	4.3	13.0	Skilled labor
10	251	Pulp and waste paper	8.7	1.1	16.5	Crude materials
11	582	Condensation,polycondensation …	8.5	0.3	106.4	Technology
12	598	Miscellaneous chemical products	7.2	0.3	83.8	Technology
13	653	Fabrics,woven,of man-made fibres	3.8	0.6	86.9	Unskilled labor
14	682	Copper	3.2	0.9	60.8	Natural Resources
15	664	Glass	2.9	0.3	20.3	Unskilled labor
16	657	Special textile fabrics and related	2.6	0.2	31.1	Unskilled labor
17	278	Other crude minerals	2.4	2.6	6.0	Crude materials
18	292	Crude vegetable materials, n.e.s.	2.3	3.1	10.0	Crude materials
19	661	Lime,cement,and fabricated construc.	1.5	9.6	31.3	Natural Resources
20	592	Starches, inulin & wheat gluten;…	0.9	0.0	25.7	Technology

Source: Comtrade

Revealed Comparative Advantage (RCA) Analysis

The RCA analysis performed in Chapter I follows Vollrath (1991). The measure of RCA proposed by Vollrath is an index that accounts for both exports and imports, as well as the relative size of world markets to capture the overall competitiveness of each country by sector. It corrects for a number of problems associated with the traditional measures of RCA proposed by Balassa.[83] First, it eliminates any double counting problem by excluding the sector, and country trade values in the aggregates that are used as benchmarks to compare a country/sector RCA. Second, it is based on a measure of net exports, which allows the RCA to capture the growing importance of intraindustry trade. Third, Balassa's index is asymmetric as it varies between 0 and infinity, with values between 0 and 1 indicating that the country does not have a comparative advantage and values between 1 and +infinity signaling that the country has a comparative advantage in that sector. The measure proposed by Vollrath (1991) is symmetric with positive values indicating a revealed comparative advantage and negative values a revealed comparative disadvantage.

More formally, the RCA measure is given by:

$$RCA_{s,t}^c = \ln\left(RXA_{s,t}^c\right) - \ln\left(RMA_{s,t}^c\right) \tag{1}$$

where

$$RXA_{s,t}^c = \left(X_{s,t}^c\right)/\left(X_{-s,t}^c\right)/\left(X_{s,t}^{-c}\right)/\left(X_{-s,t}^{-c}\right) \tag{2}$$

$$RMA_{s,t}^c = \left(M_{s,t}^c\right)/\left(M_{-s,t}^c\right)/\left(M_{s,t}^{-c}\right)/\left(X_{-s,t}^{-c}\right) \tag{3}$$

where $X_{s,t}^c$ are exports of country c in sector s at time t, $X_{-s,t}^c$ are total exports of country minus exports of good s at time t, $X_{s,t}^{-c}$ is world exports in sector s at time t, minus $X_{s,t}^c$, and $X_{-s,t}^{-c}$ is total world exports minus $X_{s,t}^{-c}$ and $X_{-s,t}^c$. M stands for imports and subscripts and superscripts are defined in the same way as in the case of exports.

This index has drawbacks when comparisons across countries and time are made. The average value of $RCA_{s,t}^c$ across sectors s will vary across countries and time. The average value will depend on the degree of concentration of exports and imports in each country/year. So in order to make inferences regarding which country has a stronger comparative advantage in apparel, or whether a country's comparative advantage in apparel has increased through time, we need to normalize all $RCA_{s,t}^c$ values by their country/year mean. More formally, the measure of RCA used with this report is given by:

$$R\hat{C}A_{s,t}^c = RCA_{s,t}^c - \sum_s \frac{RCA_{s,t}^c}{n} \tag{4}$$

where n is the number of sectors.

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[83] Balassa's measure of RCA of country c in sector s is given by: $RCA_s^c = \left(X_s^c/X^c\right)/\left(X_s^w/X^w\right)$, where X_s^c denotes exports of country c in sector s, X^c denotes total exports of country c, X_s^w is world trade in sector s, and X^w is total world trade.

ANNEX II: MENA'S EXPORT GROWTH ANALYSIS

Table A2.1: Constant market share analysis of MENA countries' exports to the EU, 1995-2006

	Change in exports (%)	EU demand growth effect (%)	Commodity composition (%)	Market structure (%)	Competitiveness (%)	Residual
Algeria	158.9	139.2	2.2	0.7	12.3	4.5
Egypt	163.5	140.6	-30.5	16.4	34.6	2.5
Iran	38.4	105	-72.1	-1.3	7.2	-0.4
Jordan	59.3	111	-26.9	-12.1	-17.1	4.4
Lebanon	81.2	117.2	4.4	-3.8	-41.2	4.6
Morocco	71	114.3	-26.6	6.7	-25.3	1.9
Syria	41.5	105.9	-90.6	5.2	19.6	1.4
Tunisia	113.2	126.3	4.5	8.9	-27.2	0.8
China	466.1	226.5	-7.0	2.7	241.2	2.7
India	156.8	138.7	-28.2	-2.8	47.1	2.1

Note: Excludes HS 27, 88, and 89. Calculations are based upon average market shares across 1995 and 2006. Export flows are at the eight-digit level of the combined nomenclature.
Source: Staff calculations based on Eurostat data.

Table A2.2: Manufacturing trade by stage of production for labor-abundant MENA countries, 2006
(percent)

	Algeria	Egypt	Iran	Jordan	Lebanon**	Morocco	Tunisia*	Syria
Share of manufacturing (%)	1	39	7	84	62	64	79	13
Intermediate goods	94.6	80.9	67	45.4	59	68.9	49.2	56.3
Parts and Components	1.7	2.3	5.5	12.6	13.7	19.6	15.1	1.6
Semi-finished goods	92.8	78.6	61.4	32.8	45.3	49.3	34.1	54.8
Final goods	4.4	18.9	32.6	54.2	40.6	28.4	46.7	43.6
Consumption goods	1.9	17.1	25.1	37.3	22.1	25.1	38	42
Capital goods	2.5	1.8	7.5	17	18.5	3.3	8.7	1.6
	Algeria	**Egypt**	**Iran**	**Jordan**	**Lebanon****	**Morocco**	**Tunisia***	**Syria**
Share of manufacturing (%)	77	44	71	59	57	65	74	55
Intermediate goods	49.6	68.8	55.1	56.7	44.4	61.3	68.3	65.2
Parts and Components	14.3	20.9	13	13.6	10.1	11.3	19.8	10
Semi-finished goods	35.3	47.9	42.1	43.1	34.3	50	48.4	55.2
Final goods	47.5	28.2	39.7	42.1	53.8	36.6	28.6	31.9
Consumption goods	14.1	9	6.9	15.2	35	11.1	9.2	5
Capital goods	33.3	19.2	32.8	26.9	18.8	25.5	19.3	26.9

 * 2005 instead of 2006   ** 2004 instead of 2006
Source: Staff calculations based on UN Comtrade.

Table A2.3: Share of high-tech products in exports by production stage, 2004-06 average (percent)

		Algeria	Egypt	Iran	Jordan	Lebanon	Morocco	Syria	Tunisia	Yemen
Intermediate goods		5.5	6.4	5.1	7.5	3.0	2.7	3.2	3.6	3.3
	Parts and Components	4.7	4.9	3.5	5.8	2.1	1.8	2.4	2.9	2.8
	Semi-finished goods	0.8	1.4	1.6	1.7	0.9	0.9	0.8	0.7	0.5
Final goods		6.0	3.6	5.7	7.6	2.4	5.0	2.7	3.4	3.4
	Consumption goods	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.2
	Capital goods	5.9	3.5	5.7	7.5	2.2	4.9	2.6	3.3	3.2
Intermediate goods		1.1	0.4	0.4	3.4	1.2	1.2	0.1	0.9	3.2
	Parts and Components	0.7	0.3	0.2	2.7	1.1	1	0.1	0.8	3.2
	Semi-finished goods	0.4	0.1	0.2	0.7	0.1	0.2	0.0	0.1	0.0
Final goods		0.5	21.5	0.5	4.3	0.4	0.3	0.1	1.1	5.7
	Consumption goods	0.0	19.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2
	Capital goods	0.5	2.5	0.5	4.2	0.2	0.3	0.1	1.1	5.5

Source: Staff calculations based on UN Comtrade.

Table A2.4: Key contributors to export growth and decline at the intensive margin

		Increase of existing products to old markets			Decrease of existing products to old markets	
	Code	Product	Change in China's share of world market	Code	Product	Change in China's share of world market
Algeria	281410	Anhydrous ammonia	0.00%	290511	Methanol (methyl alcohol)	-0.75%
	280429	Rare gases (excl. argon)	0.01%	290121	Ethylene	1.25%
	740400	Waste and scrap copper	1.00%	720712	Semi-fin products of iron and steel	7.41%
	030613	Frozen shrimps and prawns	2.98%	720110	Pig iron, non-alloy…	-17.70%
	790111	Zinc not alloyed unwrought…	-6.04%	281410	Anhydrous ammonia	0.00%
	Top 5 contribution to overall effect 72.39%			Top 5 contribution to overall effect 30.18%		
	Main markets: France, Spain, Italy, Tunisia, Morocco (91.83%)			Main markets: Italy, Spain, France, Morocco, Greece (63.49%)		
Egypt	080510	Oranges, fresh or dried	0.72%	070190	Other potatoes, fresh or chilled	1.98%
	701810	Glass beads, imitation pearls	5.13%	760110	Aluminum unwrought, not alloyed	8.62%
	620462	Women's/girls' trousers, of cotton	8.46%	520812	Unbleached plain cotton weave…	3.10%
	620342	Men's/boys' trousers, cotton	3.65%	520100	Cotton, not carded or combed	-0.39%
	760120	Aluminum unwrought, alloyed	1.48%	620520	Men's or boys' shirts of cotton	8.95%
	Top 5 contribution to overall effect 21.12%			Top 5 contribution to overall effect 22.20%		
	Main markets: US, Italy, S. Arabia, UK, Germany (59.75%)			Main markets: US, UK, Germany, Italy, France (45.35%)		
Iran	080250	Pistachio, fresh or dried	0.16%	570110	Carpets and other floor coverings	-5.57%
	290220	Benzene	-0.42%	080250	Pistachio, fresh or dried	0.16%
	740311	Copper cathodes	-1.56%	720712	Semi-fin products of iron and steel	7.41%
	260300	Copper ores and concentrates	0.08%	410221	Pickled skins of sheep or lambs…	-0.03%
	760110	Aluminum unwrought, not alloyed	8.62%	970600	Antiques	7.17%
	Top 5 contribution to overall effect 47.33%			Top 5 contribution to overall effect 50.64%		
	Main markets: India, S. Arabia, Hong Kong, China, Italy (71.66%)			Main markets: Germany, Japan, Italy, Thailand, France (58.29%)		
Jordan	611020	Jerseys, pullovers, etc, of cotton	9.70%	251010	Unground natural calcium phosphates	7.00%
	620462	Women's/girls' trousers, of cotton	8.46%	310420	Potassium chloride	-0.03%
	310420	Potassium chloride	-0.03%	310530	Diammonium Hydrogenorthophosphate	6.67%
	711319	Art. of jewelry	5.90%	310490	Mineral or chemical fertilizers…	-0.29%
	280920	Phosphoric acid…	2.47%	010410	Live sheep	-1.36%
	Top 5 contribution to overall effect 45.11%			Top 5 contribution to overall effect 45.47%		
	Main markets: US, India, S.Arabia, Algeria, China (91.60%)			Main markets: Indonesia, S. Arabia, India, Italy, Netherlands (42.48%)		
Lebanon	720449	Ferrous waste and scrap, iron/steel	-0.32%	290122	Propene (propylene)	0.18%
	711319	Art. of jewelry	5.90%	740400	Waste and scrap, copper	1.00%
	710239	Diamonds non-industrial	2.09%	240110	Tobacco, not stemmed/stripped	1.60%
	280920	Phosphoric acid…	2.47%	070190	Other potatoes, fresh or chilled	1.98%
	490199	Printed books, brochures, leaflets	11.02%	710239	Diamonds non-industrial	2.09%
	Top 5 contribution to overall effect 54.73%			Top 5 contribution to overall effect 20.50%		
	Main markets: Switzerland, Turkey, S. Arabia, US, Jordan (72.05%)			Main markets: S. Arabia, France, Thailand, Egypt, US (50.00%)		

Table A2.4 (Cont.)						
	Increase of existing products to old markets		Change in China's share of world market	Decrease of existing products to old markets		Change in China's share of world market
Morocco	620462	Women's/girls' trousers of cotton	8.46%	030759	Octopus (excl. live, fresh or chilled)	9.61%
	280920	Phosphoric acid…	2.47%	280920	Phosphoric acid	2.47%
	251010	Unground natural calcium phosphates	7.00%	620342	Men's/boys' trousers of cotton	3.65%
	610910	T-shirts, singlets…of cotton,	4.68%	310530	Diammonium hydrogenorthophosphate	6.67%
	070820	Beans, fresh or chilled	-1.20%	620640	Women's/girls' blouses, shirts of mmf	13.78%
	Top 5 contribution to overall effect 21.34%			Top 5 contribution to overall effect 21.56%		
	Main markets: Spain, France, UK, Belgium, Germany (68.15%)			Main markets: France, Germany, Japan, Italy, UK (69.44%)		
Syria	010410	Live sheep	-1.36%	520100	Cotton, not carded or combed	-0.39%
	150910	Virgin olive oil and fractions	0.00%	100300	Barley	0.01%
	520100	Cotton, not carded or combed	-0.39%	410221	Pickled skins of sheep or lambs	-0.03%
	010420	Live goats	-0.42%	847193	Storage units…	12.13%
	410512	Sheep, lamb skin leather	-2.22%	100110	Durum wheat	0.02%
	Top 5 contribution to overall effect 60.89%			Top 5 contribution to overall effect 54.90%		
	Main markets: S. Arabia, Italy, Jordan, Turkey, Spain (78.27%)			Main markets: Italy, Jordan, S. Arabia, Morocco, Spain (52.85%)		
Tunisia	620342	Men's/boys' trousers of cotton	3.65%	620342	Men's/boys' trousers of cotton	3.65%
	854430	Ignition wiring sets	6.99%	620640	Women's/girls' blouses, shirts of mmf	13.78%
	620462	Women's/girls' trousers of cotton	8.46%	620520	Men's or boys' shirts of cotton	8.95%
	853650	Electrical switches…	6.82%	620343	Men's/boys' trousers, synthetic materials	3.30%
	621210	Brassieres	16.59%	280920	Phosphoric acid	2.47%
	Top 5 contribution to overall effect 27.45%			Top 5 contribution to overall effect 17.15%		
	Main markets: France, Italy, Germany, Belgium, Spain (83.75%)			Main markets: Germany, France, Luxembourg, Italy, Algeria (67.15%)		
Yemen	030219	Fresh or chilled salmonidae	0.18%	090111	Coffee, not roasted or decaffeinated	0.25%
	080300	Bananas, including plantains	0.03%	010410	Live sheep	-1.36%
	030749	Cuttle fish and squid	8.96%	760200	Waste and scrap, aluminum	-0.84%
	030799	Aquatic invertebrates, nes	-0.65%	010420	Live goats	-0.42%
	081090	Other fruit, fresh, nes	0.65%	740400	Waste and scrap, copper	1.00%
	Top 5 contribution to overall effect 72.20%			Top 5 contribution to overall effect 46.27%		
	Main markets: S. Arabia, Thailand, Hong Kong, Spain, Japan (89.47%)			Main markets: S. Arabia, UK, Jordan, Gambia, Korea (67.84%)		

Source: UN Comtrade.

Table A2.5: Key contributors to export growth and decline at the extensive margin

		Increase of existing products to new markets			Increase of new products to old markets	
	Code	Product	Change in China's share of world market	Code	Product	Change in China's share of world market
Algeria	720449	Ferrous waste and scrap, iron or st	-0.32%	310280	Mixtures of urea and ammonium nitra	0.07%
	281410	Anhydrous ammonia	0.00%	180400	Cocoa butter, fat and oil	-0.11%
	720824	Flat rolled prod, i/nas, in coil, hr,	2.57%	290244	Mixed xylene isomers	1.07%
	251020	Ground natural calcium p'phates,	1.89%	390110	Polyethylene having a specific grav	0.18%
	390120	Polyethylene having a specific grav	0.18%	846694	Parts and accessories nes for use o	1.37%
	Top 5 contribution to overall effect 70.30%			Top 5 contribution to overall effect 49.84%		
	Main markets: Turkey, Morocco, Netherlands, Germany, India (72.05%)			Main markets: France, Spain, US, Netherlands, Italy (67.78%)		
Egypt	720824	Flat rolled prod, i/nas, in coil, hr,	2.57%	252329	Portland cement (excl. white)	0.66%
	252310	Cement clinkers	12.62%	720241	Ferro-chromium containing by weight	-8.19%
	310210	Urea	5.25%	721510	Bars & rods, i/nas, nfw than cold forme	0.49%
	390120	Polyethylene having a specific grav	0.18%	841121	Turbo-propellers of a power not exc	0.26%
	854430	Ignition wiring sets & other wiring sets	6.99%	722830	Bars & rods, alloy steel, o/t stainless	3.03%
	Top 5 contribution to overall effect 30.32%			Top 5 contribution to overall effect 56.20%		
	Main markets: Spain, UK, US, S. Arabia, Italy (38.45%)			Main markets: Sudan, S. Arabia, US, UK, Italy (73.91%)		
Iran	290511	Methanol (methyl alcohol)	-0.75%	260111	Non-agglomerated iron ores and conc	0.04%
	570110	Carpets and other textile floor cov	-5.57%	720610	Ingots, iron or non-alloy steel, of	-4.43%
	290243	p-Xylene	-3.53%	291736	Terephthalic acid and its salts	-0.12%
	720824	Flat rolled prod, i/nas, in coil, hr,	2.57%	381710	Mixed alkylbenzenes, nes	4.50%
	740919	Plate, sheet & strip of refined copper	2.47%	293361	Melamine	9.19%
	Top 5 contribution to overall effect 31.63%			Top 5 contribution to overall effect 49.09%		
	Main markets: China, India, US, S. Arabia, Korea (55.85%)			Main markets: China, India, S. Arabia, Turkey, Italy (78.58%)		
Jordan	310530	Diammonium hydrogenorthop'hate	6.67%	290810	Phenol or phenol-alcohol derivative	5.36%
	310520	Mineral or chemical fertilizers wit	0.78%	283421	Nitrates of potassium	4.81%
	610821	Women's/girls' briefs and panties	4.40%	610220	Woman's or girls' coats, etc, of co	15.72%
	310540	Ammonium dihydrogenorthop'hate	4.74%	280130	Fluorine; bromine	1.86%
	610343	Men's or boys' trousers, etc, of sy	-4.41%	610822	Women's or girls' briefs, etc, of m	16.98%
	Top 5 contribution to overall effect 29.39%			Top 5 contribution to overall effect 35.08%		
	Main markets: US, Japan, S. Arabia, Ethiopia, Israel (57.63%)			Main markets: US, S. Arabia, Egypt, Korea, China (57.24%)		
Lebanon	280920	Phosphoric acid	2.47%	290110	Acyclic hydrocarbons, saturated	-0.06%
	240110	Tobacco, not stemmed/stripped	1.60%	850213	Generating sets, diesel or semi-dies	1.57%
	050400	Guts, bladders, stomachs of animals	5.74%	283526	Phosphates of calcium, nes	3.53%
	852520	Transmission apparatus, for radiote	14.25%	844900	Mach for the mfr or fin of felt or	1.80%
	392330	Carboys, bottles, flasks and simila	3.30%	854460	Electric conductors, for a voltage	1.63%
	Top 5 contribution to overall effect 21.91%			Top 5 contribution to overall effect 28.59%		
	Main markets: Jordan, Egypt, S. Arabia, India, UK (31.18%)			Main markets: Egypt, S. Arabia, Jordan, US, Italy (62.70%)		

Table A2.5 (cont.)					
	Increase of existing products to new markets			Increase of new products to old markets	
	Code	Product	Change in China's share of world market	Code	Product	Change in China's share of world market
Morocco	854441	Electric conductors, for a voltage n	15.38%	701990	Glass fibers (including glass wool)	4.51%
	854430	Ignition wiring sets	6.99%	852692	Radio remote control apparatus	-2.00%
	854219	Monolithic integrated circuits, nes	5.14%	721420	Bars & rods, i/nas, hr, hd or he, cntg in	6.22%
	854129	Transistors….	8.22%	940120	Seats, motor vehicles	14.89%
	310540	Ammonium dihydrogenorthop'hate	4.74%	930690	Munitions of war & pts thereof and ot	0.10%
	Top 5 contribution to overall effect 41.11%			Top 5 contribution to overall effect 16.66%		
	Main markets: Spain, Singapore, China, Hong Kong, Italy (54.99%)			Main markets: France, Spain, Algeria, Belgium, Italy (65.0%)		
Syria	100110	Durum wheat	0.02%	520515	Uncombed single cotton yarn, with >	-1.95%
	520100	Cotton, not carded or combed	-0.39%	310210	Urea	5.25%
	251010	Unground natural calcium p'hates	7.00%	841112	Turbo-jets of a thrust exceeding 25	1.36%
	610832	Women's or girls' pajamas, etc, of	1.97%	854459	Electric conductors, for a voltage	2.58%
	220210	Waters (incl. mineral and aerated),	0.51%	520842	Colored plain cotton weave, with >	1.36%
	Top 5 contribution to overall effect 31.59%			Top 5 contribution to overall effect 34.89%		
	Main markets: Jordan, Egypt, Sudan, Algeria, China (55.38%)			Main markets: Egypt, Italy, Jordan, S. Arabia, Turkey (74.3%)		
Tunisia	854430	Ignition wiring sets & other wiring sets	6.99%	870894	Steering wheels, steering columns a	0.85%
	721049	Flat rolled prod, i/nas, plated or	2.61%	721039	Flat rolled prod, i/nas, electro pl	-0.29%
	870821	Safety seat belts for motor vehicle	1.91%	630399	Curtains and interior blinds; curta	25.77%
	640340	Footwear, with a metal toe-cap, lea	15.42%	630493	Furnishing articles of synthetic fi	43.89%
	853710	Boards, panels, including numerical	4.48%	030349	Frozen tunas, nes	7.62%
	Top 5 contribution to overall effect 18.56%			Top 5 contribution to overall effect 33.26%		
	Main markets: France, Italy, UK, Poland, Spain (55.04%)			Main markets: France, Algeria, Italy, Germany, Belgium (71.08%)		
Yemen	030232	Fresh or chilled yellowfin tunas	-0.12%	070310	Onions and shallots, fresh or chill	6.84%
	030749	Cuttle fish and squid	8.96%	030420	Frozen fish fillets	17.17%
	410221	Pickled skins of sheep or lambs	-0.03%	160414	Prepared or preserved tuna, skipjac	0.25%
	030379	Frozen fish, nes	7.01%	151790	Edible preparations of fats and oil	-1.05%
	240120	Tobacco, partly or wholly stemmed	2.58%	230210	Brans, sharps and other residues of	0.84%
	Top 5 contribution to overall effect 58.48%			Top 5 contribution to overall effect 44.45%		
	Main markets: Italy, France, S. Arabia, Paraguay, Germany (57.31%)			Main markets: S. Arabia, Egypt, Ethiopia, Oman, France (78.7%)		

Source: UN Comtrade.

ANNEX III: MENA'S RESPONSE TO INCREASED COMPETITION IN THE APPAREL MARKETS

Since the removal of the Multi-fiber Agreement in 2005, trade in apparels has become practically free. Apparels represent a very high share of all textile and clothing exports of MENA countries to US and EU markets (see table A3.1). It is also an important element of textile and clothing exports of China and India although not to the same extent. India's share of apparel in total textile and clothing exports, for instance, lingers between 60 and 62 percent, lower than China's 75 to 80 percent. Both countries have significantly expanded their exports to US and EU markets since 2005.

Table A3.1: Share of apparel in total textile and clothing exports, 2004 and 2007 (percent)

US	2004	2007	EU	2004	2007
Egypt	75	80	Egypt	56	57
Jordan	100	10	Jordan	97	93
Morocco	98	97	Morocco	95	95
Tunisia	96	97	Tunisia	92	90
China	61	70	China	81	82
India	61	62	India	60	66
World	78	77	World	66	69

Source: Eurostat and Office of Textile and Apparel.

China almost doubled its exports to the EU and almost tripled those to the US. The total volume of apparel exports to both markets exceeds MENA's apparel export by a factor of six. India exports a bit more than MENA but it doubled its exports to EU and US markets.

How did MENA countries perform? The labor-abundant MENA countries did quite well despite the hefty competitive pressures. Exports to the US increased from $1.5 billion in 2004 to almost $2 billion in 2007. An increase was also recorded in the EU markets (from €5.4 billion to €5.6 billion). In contrast, apparel exports from the GCC countries clearly suffered from the competition. Exports to both markets dropped significantly, and because they were not very high to begin with, are now exported in almost negligible amounts ($203 million and €114 billion respectively).

Table A3.2: US imports value (in US$ million) and EU imports value (in €million)

	USA					EU			
	2004	2005	2006	2007		2004	2005	2006	2007
Labor-abundant	**1,522.3**	**1,649.9**	**2,033.9**	**1,997.5**		**5,495.9**	**5,183.7**	**5,339.0**	**5,647.4**
Egypt	422.3	444.3	624.8	697.3		338.5	328.7	379.4	413.9
Jordan	956.2	1,082.5	1,253.2	1,145.4		9.7	8.0	8.5	8.4
Lebanon	4.1	2.4	1.9	2.0		9.5	10.1	10.4	10.3
Morocco	74.3	55.9	99.8	88.0		2,441.4	2,287.4	2,385.9	2,528.2
Syria	21.5	12.0	6.9	7.0		92.1	77.2	70.5	75.6
Tunisia	44.0	52.8	47.2	57.8		2,604.7	2,472.3	2,484.3	2,611.0
GCC	**617.9**	**441.6**	**303.2**	**203.7**		**241.7**	**133.1**	**143.5**	**111.4**
Bahrain	155.9	120.0	85.2	69.5		4.0	2.3	0.9	0.4
Kuwait	32.6	11.6	1.9	0.0		1.5	0.6	0.7	1.7
Oman	125.4	53.4	22.5	10.3		9.5	3.1	1.9	0.6
Qatar	64.4	29.9	9.0	1.8		1.0	0.3	0.5	0.6
Saudi Arabia	0.1	0.2	0.3	0.2		3.3	2.1	3.2	2.6
United Arab Emirates	239.6	226.4	184.4	121.8		222.5	124.7	136.3	105.4
China	8,927.9	15,142.9	18,517.6	22,745.4		12,417.4	18,025.2	20,052.6	23,434.1
India	2,217.1	2,976.2	3,186.9	3,169.9		2,765.3	3,523.6	4,069.2	4,294.8
World	64,767.7	68,713.3	71,629.8	73,923.2		89,291.0	94,288.6	101,869.5	105,943.3

Source: Eurostat and Office of Textile & Industry (OTEXA), International Trade Adm. (ITA).

How did the labor-abundant MENA countries withstand competition? The most obvious explanation would be that they compete in market segments other than China's and India's or that in the same market segment MENA apparels are of higher quality. This hypothesis is substantiated by the trends in export volumes and values. In volumes not all labor-abundant MENA countries did well. Jordan lost exports on the EU market while the increase for Morocco and Tunisia was small, with both countries even losing on the US market (table A3.3).

Table A3.3: Unit price of apparel products in the US, 2004–07

Unit Price	2004	2005	2006	2007	
Egypt	2.7	2.8	3.1	3.3	22%
Jordan	4.2	4.1	4.3	4.6	10%
Morocco	5.4	8.3	9.6	11.5	113%
Tunisia	9.1	10.8	13.5	19.1	110%
China	3.0	2.6	2.8	2.8	-7%
India	3.6	3.8	3.8	3.6	0%
World	3.2	3.1	3.2	3.2	0%

Source: Eurostat and Office of Textile & Industry (OTEXA)

But in values, they recorded increases on both markets, clearly explained by a price effect. Indeed, data for apparel products show that prices have gone up in MENA countries, in both the US and EU markets (except Egypt, which suffered a slight decline in the EU market). For Morocco and Tunisia prices more than doubled in the US market. The prices of apparel from China and India either remained stable of dropped (China in US market).

Table A3.4: KG price of apparel products in EU

Unit price	2004	2005	2006	2007	
Egypt	15.9	15.8	15.4	15.0	-6%
Jordan	12.5	16.4	15.9	17.0	36%
Morocco	18.0	18.3	19.4	20.8	15%
Tunisia	23.1	24.3	25.1	26.1	13%
China	10.1	10.3	11.2	11.2	11%
India	14.5	15.6	17.0	16.3	12%

Source: Eurostat and Office of Textile & Industry (OTEXA)

These export and competition dynamics can also be illustrated by examining the volume and price changes of two selected fashion items: coats and knitted trousers. Taking the unit price as an indicator, the coats stand for high quality and the trousers for lower quality.[84] Coat prices increased in almost all markets between 2005 and 2007 but the price increase for coats from Tunisia and Morocco was much higher than that for coats from China and India.

Table A3.5: Changes in volume and unit price of two selected fashion items, 2005–07

	Woven coat, cotton or man made fiber				Knitted trousers, cotton or man made fiber			
	Country	Change in volume (percent)	Change in price (percent)	Kilogram price		Change in volume (percent)	Change in price (percent)	Kilogram price
	China	-3%	6%	11.2	China	111%	-50%	5.4
	India	-31%	8%	17.6	India	19%	4%	11.7
	Egypt	21%	-8%	22.7	Egypt	207%	-5%	12.7
EU	Morocco	-18%	19%	27.9	Morocco	-31%	-1%	13.9
	Tunisia	-34%	10%	36.5	Tunisia	-21%	-4%	12.5
				Unit price				Unit price
	China	22%	4%	10.0	China	-18%	41%	4.4
	India	-39%	6%	11.6	India	13%	10%	3.5
	Egypt	-38%	-141%	3.2	Egypt	46%	21%	2.2
US	Morocco	62%	18%	32.1	Morocco	56%	-40%	9.7
	Tunisia	-40%	35%	46.3	Tunisia	-62%	4%	14.7

Source: Eurostat and Office of Textile & Industry (OTEXA)

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[84] Unit prices are not a perfect indicator of quality, but it is often reasonable to assume that higher quality products are more expensive than lower quality products. The literature often infers the same relationship between price and quality of goods. Hallack, J.C. 2004; Schott, P. 2004.

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ANNEX IV: THE REGULATORY FRAMEWORK OF FDI IN MENA COUNTRIES

This annex presents information (updated to 2007) on the regulatory framework for foreign direct investment in MENA. It includes information on bilateral investment treaties and double taxation treaties; it discusses the regulatory framework for foreign investment and the attractiveness of the business environment for foreign investment.

Bilateral Investment Treaties (BIT)

Bilateral treaties are signed by countries to reciprocally facilitate investment and to prevent double taxation of investment income. Most countries in MENA have legal guarantees against expropriation. Equally, international investment agreements concluded by MENA countries provide for guarantees in the case of expropriation. The number of MENA BITs has increased since the mid-1990s, peaking at 45 new treaties in 2001. China and India have signed 120 and 60 BITs, respectively. Except Libya, all MENA countries have signed a BIT with China, although this has not yet entered into force for Jordan and Tunisia. Ten MENA countries have signed a BIT with India, but only 5 have now entered into force (table A4.1).

Table A4.1: Bilateral investment treaties

June 2007	Total	With China	With India			
	Signed	Entry into force	Signed	Entry into force	Signed	Entry in force
Algeria	36	20	1996	2002		
Bahrain	20	11	1999	2000	2004	
Djibouti	6	1	2003	?	2003	
Egypt	78	54	1994	1996	1997	2000
Iran	56	43	2000	2005		
Jordan	39	29	2001	?		
Kuwait	47	36	1985	1986	2001	2003
Lebanon	48	39	1996	1997		
Libya	19	10				
Morocco	58	36	1995	1999	1999	2001
Oman	27	21	1995	1995	1997	2000
Qatar	34	12	1999	2000	1999	1999
Saudi Arabia	17	9	1996	1997	2006	
Syria	32	24	1996	2001		
Tunisia	51	33	2004	?		
UAE	31	23	1993	1994		
Yemen		17	1998	2002	2002	

Note: The table provides details of bilateral investment treaties for 177 economies, concluded June 1, 2007.
Source: Country-specific lists of BITs (UNCTAD).

Double taxation treaties (DTT)

Double taxation treaties exist between many countries on a bilateral basis to prevent double taxation (taxes levied twice on the same income, profit, capital gain, inheritance or other item). Overall, MENA countries have concluded around 375 double taxation treaties, except Djibouti, Libya, and Yemen. China and India have signed 94 and 67 double taxation treaties, respectively. Few MENA countries have signed a DTT with China and India (table A4.2).

Investment restrictions

A major factor affecting FDI performance of MENA countries is the high entry cost resulting from the complex procedures involved in setting up foreign-owned enterprises. A recent study shows that,[85] while in terms of the business environment MENA economies occupy a middle position in the worldwide ranking, MENA has lost significant ground in reducing impediments to business development. Table A4.3 shows the restrictiveness of the regulatory framework for FDI in several MENA countries, on the basis of ten criteria, discussed below:[86]

Table A4.2: Double taxation treaties

June 2007	Total signed	With China signed	With India signed
Algeria	29		
Bahrain	11		
Djibouti	0		
Egypt	38	1997	1969
Iran	30		
Jordan	18		
Kuwait	34		
Lebanon	32		
Libya	3		1981
Morocco	34		1998
Oman	22		
Qatar	22		
Saudi Arabia	13		
Syria	28		
Tunisia	39	2004	
UAE	43	1993	
Yemen	9	1998	2002

Source: Country-specific lists of DTTs (UNCTAD).

- *Limitations on the entry of FDI:* This includes discriminatory screening and approval procedures for FDI. Investment screening and approval procedures are applied in all MENA countries' investment laws, except Morocco and Yemen.
- *Limitations on foreign purchase of domestic shares:* This refers to shares, bonds, and other securities with an original maturity of more than one year. Ten of the MENA countries restrict the ability of foreigners to buy these shares. China and India also impose restriction on it.
- *IMF Article VIII:* Acceptance of this status indicates that restrictions on payments and transfers relating to current transactions, including repatriation of profits, have been removed. All countries in MENA, except Syria, have obtained this status.
- *Restriction on transfers abroad of the proceeds of the liquidation of FDI:* They include restrictions on the permission of foreign exchange accounts, domiciliation of imports, or surrender of exports. Thirteen MENA countries report that they allow repatriation of capital without restriction, while Algeria, Libya, and Yemen operate restrictions of varying depth. China and India also operate restrictions on repatriation of capital.
- *Foreign exchange account permitted:* This means that the non-residents are allowed to hold accounts in the national currency or in foreign currency. Only Qatar imposes procedures on this.
- *Surrender requirements for export:* These regulations require the exporters to sell, sometimes at a specific exchange, foreign currency in return for local currency to the central bank or commercial bank. Four MENA countries require the recipient to sell repatriated exports to the central bank or to authorized dealers (Algeria, Morocco, Syria, and Tunisia), as well as China and India.
- *Domiciliation requirement for imports:* This is an obligation to domicile the transactions with a specified (usually domestic) financial institution. Four MENA countries request to domicile transactions with a domestic financial institution (Algeria, Bahrain, Morocco, and Tunisia), as well as China and India.

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[85] The World Bank 2005b.

[86] This updates and completes a work done by OECD in 2005 concerning the regulatory framework in the MENA region. We use 7 OECD criteria that we update and add three more. (OECD, 2006)

- *Restrictions on real estate acquisition:* The number of procedures required to acquire real estate can ultimately affect the destination of international capital. Ten MENA countries present restrictions on real estate acquisition.
- *Performance requirements on foreign direct investors:* They include the following requirements: investors export a certain percentage of output or only have access to foreign exchange in relation to their exports; nationals own shares or that the share of foreign equity is reduced over time; conditions on permission to invest, including location in specific sectors, geographical area, percentages of local content or local equity, local sources of financing, and employment of host country nationals. Six MENA countries have performance requirements on FDI. Algeria just requires a minimum level of foreign equity. Kuwait requires use of local products and imposes requirements on shipping and on investment in R&D. Saudi Arabia requires a percentage of local workforce. Syria requires minimal investment and looks more favorably on proposals that include more local labor and local materials for undeveloped rural areas. Tunisia restricts FDI in the petroleum sector and in private sector infrastructure development. The UAE are highly restrictive on FDI; for example, to bid on a federal contract, a foreign supplier must be part of a company in which nationals own at least 51 percent.
- *Incentives policies:* MENA countries use investment incentives to attract FDI. They may be granted the right to invest in the whole territory, or only in special economic zones. Direct subsidies or income tax incentives can make the host state more attractive to investors. Except Kuwait and Saudi Arabia, all MENA countries use incentive policies to attract FDI.

Attractiveness of the business environment for foreign investors

Table A4.4 shows a number of indicators to measure the attractiveness of the economic environment for business. The Investment Risk Index (calculated on the basis of indicators of contract viability, profit repatriation, and payment delays) shows a relatively low risk for most MENA countries. India and China have higher risk than most countries (except for Egypt, Iran, and Syria).

Restrictions to doing business are still important but have improved. The number of procedures for starting a business and dealing with the required licenses varies among the MENA countries. Nonetheless, the number of procedures for starting a business is significantly less than that to obtain the relevant operating licenses. In both cases the number is always significantly less than for China and India.

The table also portrays the perspective of foreign and domestic enterprises operating in the MENA region regarding the transparency of government policymaking in their countries. Overall, MENA ranks better than China but worse than India. The indicator "Favoritism in decision of government official" varies from country to country. Except in Libya, Syria, and Egypt, MENA countries do not tend to present favoritism in the decision of a government official, less than in China and India. Transparency International's Corruption Perceptions Index also differs significantly among MENA countries. Oman and the United Arab Emirates are less corrupt than Iraq and Libya. The existence of corruption in each MENA country poses a problem for the overall investment environment. The Global credit rating is the last indicator, based on information provided by senior economists and sovereign-risk analysts at leading global banks and money management and securities firms. It ranks countries according to their chance of default, 100 representing the least chance of default. There is a huge difference between GCC countries, which present less chance of default than even China and India, and the other MENA countries, which present more chance of default than China and India. However, some countries such as Morocco, Tunisia, and Algeria are not far from India.

Table A4.3: Regulatory framework for FDI, 2007

		Algeria	Bahrain	Djibouti	Egypt	Jordan	Kuwait	Lebanon	Libya	Morocco	Oman	Qatar	Saudi	Syria	Tunisia	UAE	Yemen	China	India
1	All-sector limitations on the entry	R	R	R	R	R	R	R	R		R	R	R	R	R	R		R	R
2	Limitations on foreign purchase of domestic shares		R				R	R	n/a	R	R	R	R	R	R	R		R	R
3	IMF Article VIII status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
4	Liquidation proceeds transfer abroad	R								R							R	R	R
5	Foreign exchange account permitted	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	R	Y	Y	Y	Y	Y
6	Surrender requirements for export	R								R				R	R			R	R
7	Domiciliation requirement for imports	R	R						n/a	R				n/a	R		n/a	n/a	n/a
8	Acquisition of real estate for FDI purposes						R	R	R	R	R	R	R	R		R		R	
9	Performance requirements on FDI	R					R						R	R	R	R		R	R
10	FDI-targeted tax and other incentives	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y

1. R: Restricted   Y: Yes   N: No   n/a: Not Available

Source: IMF, *Annual report on Exchange Arrangements and Exchange Restrictions 2007.*

Table A4.4: Data relatives to the attractiveness for FDI, 2007

	Algeria	Bahrain	Djibouti	Egypt	Iran	Jordan	Kuwait	Lebanon	Libya	Morocco	Oman	Qatar	Saudi	Syria	Tunisia	UAE	Yemen	MENA	China	India
Investment Risk Index[a]	8.5	11.5		6.5	6.5	10	11.5	8.5	10	9.5	11.5	10	11	5	8.5	11.5	8	**9**	7	8.5
• Contract viability	2.5	4		2.5	2	3.5	3.5	2.5	3.5	3.5	4	3.5	3.5	2	3	3.5	2.5	**3**	2	3.5
• Profit repatriation	3	4	3.5	2	2.5	3.5	4	3	3.5	3	3.5	3.5	3.5	1.5	2.5	4	3.5	**3.3**	2.5	2.5
• Payment delays	3	3.5		2	2	3	4	3	3	3	4	3	4	1.5	3	4	2	**3.1**	2.5	2.5
Doing Business																				
• Starting business (number of procedures)	14		11	7	8	10	13	6		6	9		7	13	10	11	12	**9.8**	13	13
• Dealing with licenses (number of procedures)	22		14	28	19	18	25	20		19	16		18	21	20	21	13	**19.6**	37	20
• Registering property (number of procedures)	14		7	7	9	8	8	8		8	2		4	4	5	3	6	**6.6**	4	6
• Investor protection index[b]	5.3		2.3	5	3	4.3	6.3	5		3	5.3		5.7	4.3	3.3	4.3	4	**4**	5	6
• Closing business (cost in percent of estate)	7		18	22	9	9	1	22		18	4		22	9	7	30	8	**13.3**	22	9
Transparency of government policymaking[c]	90	33		92		57	52		115	49	35	36	54	112	13	20		**58**	88	45
Favoritism in decision of government official[d]	30	35		50		38	65		87	39	12	16	25	77	11	21		**39**	71	54
Corruption Perceptions index[e]	3	5	2.9	2.9	2.5	4.7	4.3	3	2.5	3.5	4.7	6	3.4	2.4	4.2	5.7	2.5	**4.3**	3.5	3.5
Global credit rating[f]	54.7	70.3	22.2	50.7	35.7	45.8	77.7	28.9	49	55.1	70.5	78.2	72.8	29.6	61.3	80.3	32.8	**53.9**	76.5	62.7

Sources:

a. From the Political Risk Services Group 2007. Each index ranges from 1 (high risk) to 4 (low risk), so the Investment Risk Index ranges from 1 to 12.

b. The index ranges from 0 to 10, with higher values indicating more investor protection.

c. World Economic Forum 2007, ranking of countries from 1 (more transparency) to 131.

d. World Economic Forum 2007, ranking of countries from 1 (less favoritism) to 131.

e. Transparency International, Corruption Perceptions Index 2007. Index ranging from 1 (highest corruption) to 10.

f. International Investor 2008, ranging from 0 (highest risk of default) to 100.

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ANNEX V: GTAP METHODOLOGY AND SIMULATIONS RESULTS

The simulations in this study were undertaken using the GTAP applied general equilibrium model, documented in Ianchovichina (2004). The GTAP model itself is documented comprehensively in Hertel (1997) and in the GTAP Data Base documentation (Dimaranan 2006). The base year for this simulation is 2004. The projections scenarios are based on World Bank macroeconomic projections and labor force, population, and human capital growth assumptions.

A baseline for the period 2005–20 was constructed to provide a benchmark against which the effects of higher growth rates of output might be assessed. Economy-wide rates of technical change were used to ensure consistency between the exogenous variable forecasts and the GTAP baseline forecasts of GDP. As discussed in Chapter 5, the specific increases in growth rates analyzed were 2.1 percent per year in China and 1.9 percent in India. The model allows for extensive export-oriented manufacturing where exporters have access to intermediate inputs duty-free in China and India. Product differentiation between imported and domestic goods and among imports from different regions allows for two-way trade in each product category. Factor inputs of land, capital, skilled and unskilled labor, and in some sectors a natural resource factor are included in the analysis.

In the model, economy-wide productivity growth is adjusted to maintain the targeted increase in the rate of economic growth. Consistent with Kaldor's (1957) stylized facts of economic growth, the stock of human and physical capital is increased in line with the overall output increase in these two growing economies.

The model includes the explicit treatment of international trade and transport margins, a "global" bank designed to mediate between world savings and investment, and a relatively sophisticated consumer demand system designed to capture differential price and income responsiveness across countries. The constant returns to scale version of the GTAP model was adjusted to incorporate China's duty exemptions, large-scale liberalization of the nonagricultural sector, and the introduction of an effective system of duty exemptions for inputs used to produce exports in India. Duty exemptions were incorporated in the GTAP model and data base following the methodology developed by Ianchovichina (2004). The 57 sectors of the GTAP Data Base were aggregated into 26 sectors based on their importance in China, India, and MENA.

The simulations are discussed in Chapter 5. The attached tables provide additional data and background results.

Table A5.1: Baseline growth rates, 2004
(annual percent changes)

Country or region	Population	Unskilled labor	Skilled labor	Capital	GDP
Australia and New Zealand	0.7	1.6	0.6	3.8	3.4
China	0.6	0.8	3.9	8.5	6.6
Japan	–0.2	0.2	–0.7	2.5	1.6
Korea, Rep.	0.3	2.0	5.8	4.9	4.7
Hong Kong, China, and Taiwan, China	0.3	0.6	2.9	4.9	4.3
Indonesia	1.1	2.7	6.5	4.7	5.2
Malaysia	1.4	–1.4	3.9	5.8	5.6
Philippines	1.5	1.8	4.5	3.4	3.5
Singapore	0.8	0.6	1.1	5.3	4.9
Thailand	0.5	0.1	3.2	3.9	4.6
Vietnam	1.1	1.4	1.9	6.0	5.4
Other Southeast Asia	1.0	1.3	4.2	3.7	3.1
India	1.1	1.6	4.0	6.1	5.5
Other South Asia	1.7	2.1	3.6	5.1	5.0
Canada	0.4	1.6	0.9	3.2	2.6
United States	0.7	1.5	0.8	3.9	3.2
Mexico	1.4	2.7	4.6	3.3	3.8
Argentina and Brazil	1.0	0.9	3.6	3.1	3.6
Other Latin America	1.4	1.6	3.9	3.4	3.3
European Union	0.0	0.4	0.1	2.6	2.3
Former Soviet Union	–0.1	0.3	0.7	3.6	3.2
Sub-Saharan Africa	1.9	2.6	3.3	3.1	3.5
Israel	1.2	0.8	1.3	3.5	3.7
Rest of world	0.8	0.8	2.5	3.0	4.1
Other MENA	1.9	2.0	3.1	3.6	3.7
Iran	1.4	1.5	4.2	6.7	5.0
Egypt	1.4	1.7	2.2	3.6	4.7
Morocco	1.3	2.0	2.5	4.4	3.9
Tunisia	1.2	1.9	4.5	4.6	4.6
Algeria	1.5	2.2	4.2	2.5	2.7
Jordan	2.0	2.6	3.1	4.5	4.5
Lebanon	1.0	1.4	1.9	2.8	3.1
Syria	1.8	2.8	4.4	2.6	4.4

Source: World Bank, Center for Global Trade Analysis.

Table A5.2: Impact of improved growth and quality exports in China and India relative to baseline, 2020

Country or region	Growth Expected value		Growth and quality Expected value		Exports (percent)		Terms of trade ($ million)	
						Growth and quality		Growth and quality
	($ million)	(percent)	($ million)	(percent)	Growth	quality	Growth	quality
Australia and New Zealand	5,127	0.5	8,317	0.8	1.2	2.6	5,092	7,762
China	1,033,330	28.9	1,111,113	31.1	33.3	60.9	–55,960	22,879
Japan	–1,177	0.0	6,653	0.1	3.1	5.5	2,116	6,321
Korea, Republic	4,750	0.4	11,586	1.0	3.5	5.7	–112	4,310
Hong Kong, China, and Taiwan, China	2,553	0.4	9,350	1.3	1.4	3.2	2,959	9,578
Indonesia	1,178	0.3	2,007	0.4	0.2	0.6	1,125	1,622
Malaysia	2,669	1.2	5,323	2.4	–0.7	–0.6	2,118	3,399
Philippines	–472	–0.3	–191	–0.1	0.6	1.0	–415	–186
Singapore	–247	–0.1	1,878	1.0	1.8	3.2	476	2,361
Thailand	409	0.1	2,050	0.4	1.2	2.4	121	1,268
Vietnam	565	0.7	928	1.1	–0.5	–0.9	615	1,157
Rest of Southeast Asia	450	1.9	599	2.5	–1.4	–1.9	442	583
India	393,012	30.5	413,951	32.2	41.4	68.8	–14,628	6,270
Rest of South Asia	–757	–0.2	71	0.0	1.0	2.1	–536	493
Canada	3,068	0.3	4,670	0.4	–0.7	–0.9	3,252	4,144
United States	–595	0.0	17,531	0.1	1.4	3.2	4,605	21,171
Mexico	1,802	0.2	5,231	0.5	0.9	2.7	94	724
Argentina and Brazil	2,043	0.2	3,804	0.3	0.8	1.4	2,149	3,186
Rest of Latin America	3,414	0.5	5,102	0.7	–0.1	0.4	3,248	4,374
EU-25 plus EFTA	–6,186	0.0	12,990	0.1	0.2	0.2	6,771	21,523
Former Soviet Union	8,385	0.8	10,970	1.0	0.4	1.2	7,889	9878
Sub-Saharan Africa	5,996	0.8	8,891	1.2	0.0	0.7	4,932	7,619
Rest of world	–1,094	–0.1	–315	0.0	1.0	1.2	–502	1174
Israel	3,397	1.1	3,846	1.2	–1.8	–2.0	2,610	3,114
Other MENA	16,347	3.0	20,013	3.7	–1.6	–1.0	15,343	18,733
Iran	2,460	0.9	3,239	1.2	0.2	1.7	2,119	2,856
Egypt	363	0.3	596	0.5	0.2	0.6	297	543
Morocco	50	0.1	196	0.3	1.7	1.6	–18	144
Tunisia	–57	–0.1	–58	–0.1	–0.5	–1.5	–31	33
Algeria	2,871	1.3	3,206	1.5	–0.5	–0.6	2,435	2,695
Jordan	864	1.2	1,067	1.5	–12.4	–14.6	261	454
Lebanon	206	0.3	258	0.3	10.3	11.2	277	390
Syria	493	0.5	651	0.6	2.2	2.8	241	461
MENA	23,593	1.5	29,168	1.9	–0.9	–0.4	20,923	26,309
World	1,485,215	2.7	1,675,523	3.0	4.7	8.8	0	171,033

Source: Authors' simulations with GTAP-DD.

Table A5.3: Change in exports due to high growth in China and India relative to baseline
(percent)

Good	Egypt	Morocco	Tunisia	Algeria	Other MENA	Jordan	Lebanon	Syria	Iran
Rice	10.0	21.5	25.8	8.0	10.3	–20.0	1.6	1.8	10.2
Wheat	36.7	65.5	82.3	26.3	33.8	6.3	28.1	31.7	58.0
Grains	18.2	26.6	16.0	22.2	0.6	–14.2	6.6	10.7	19.4
Vegetables and fruits	7.4	9.9	22.8	–21.6	23.9	–13.3	12.0	6.8	39.4
Oils and fats	–0.2	0.1	1.8	–39.5	3.4	–22.8	–9.1	–6.8	1.6
Sugar	–2.0	1.2	11.2	–45.2	0.3	–25.6	–9.6	–6.8	47.8
Plant-based fibers	43.8	31.7	13.8	2.9	24.9	–12.0	20.7	44.7	18.9
Other crops	5.0	24.7	9.6	–32.1	25.9	10.8	17.0	5.5	25.8
Livestock and meat	16.7	21.1	37.0	–45.6	9.8	–6.4	2.9	0.0	6.9
Dairy	15.1	8.6	18.0	–40.1	1.5	–19.3	–3.7	–2.3	6.0
Other processed food	–0.5	–0.7	3.7	–33.9	–0.3	–17.0	–4.3	0.2	–2.2
Energy	14.7	31.2	6.9	0.7	1.0	7.4	26.1	4.4	5.6
Textiles	–5.8	–1.4	1.2	–54.0	–1.4	–23.8	–16.0	–15.1	–10.4
Apparel	–4.9	–6.2	–3.1	–54.1	–10.2	–38.4	–25.6	–22.0	–17.3
Leather	5.3	–0.8	0.8	–61.9	–3.2	–38.2	–19.2	–18.3	–26.3
Wood products	–1.6	–3.3	–0.5	–45.4	–3.9	–31.7	–15.6	–9.5	–6.2
Minerals	4.5	1.5	1.3	–16.5	3.5	–11.6	–8.2	–13.9	12.6
Chemicals	–7.8	5.8	5.4	–53.2	–0.9	–30.9	–51.1	–25.4	–9.9
Metals	–10.6	–4.7	–4.4	–57.6	4.2	–35.4	–36.5	–18.6	–3.6
Vehicles	6.2	–3.6	–2.3	–44.9	–13.5	–32.3	–27.0	–6.4	–3.3
Machinery and equipment	–4.8	–11.1	–8.8	–55.9	–19.4	–26.5	–31.8	–23.2	–20.2
Electronics	–13.9	–8.8	–15.2	–62.9	–14.6	–40.7	–39.7	–20.7	–26.5
Other manufactures	–31.9	–22.3	–17.6	–60.4	–26.7	–51.3	–54.7	–35.3	–32.7
Trade and transport	–0.9	2.0	2.0	–37.0	–1.3	–20.8	–9.2	–4.3	–5.8
Communication services	–2.5	–4.9	–1.5	–39.8	–10.7	–19.5	–7.7	–5.4	–7.0
Other services	–4.1	–2.8	–0.1	–31.3	–11.4	–17.7	–1.6	0.6	–5.3

Source: Authors' simulations with GTAP-DD.

Table A5.4: Change in output due to high growth in China and India relative to baseline (percent)

Product	Egypt	Morocco	Tunisia	Algeria	Other MENA	Jordan	Lebanon	Syria	Iran
Rice	2.0	–0.3	4.1	1.5	6.6	0.6	–1.2	0.2	0.5
Wheat	4.6	3.9	4.6	–5.7	10.0	0.6	–0.5	0.6	1.0
Grains	0.9	1.0	3.6	1.9	1.3	1.1	–0.7	0.7	0.5
Vegetables and fruits	0.7	3.0	1.4	0.2	10.0	0.5	–0.1	0.3	2.8
Oils and fats	–0.1	0.4	1.8	0.8	3.2	–1.5	–0.8	0.0	–0.9
Sugar	–0.4	–0.2	0.7	–9.6	0.3	0.8	–1.2	–0.7	4.1
Plant-based fibers	10.5	2.0	3.1	–2.0	24.4	–0.4	1.2	43.7	0.4
Other crops	2.6	6.7	3.9	–9.7	25.4	–0.3	0.1	0.3	1.6
Livestock and meat	0.8	–0.2	0.0	–4.1	0.4	1.9	–0.4	0.4	0.1
Dairy	0.5	0.0	0.0	–14.0	0.5	–0.7	–0.8	0.3	0.5
Other processed food	–0.2	–0.3	0.5	–0.5	0.4	–1.2	–0.9	0.2	0.2
Energy	2.0	14.6	1.9	0.6	0.8	2.2	2.9	0.2	1.7
Textiles	–1.8	–2.4	–0.3	–20.4	0.5	–22.9	–2.5	–2.2	–6.4
Apparel	–1.2	–4.7	–2.9	1.0	–7.7	–23.2	–3.1	–0.6	–3.8
Leather	0.9	–0.6	0.4	–10.5	–2.4	–1.5	–0.1	–1.1	–9.1
Wood products	–0.4	–1.1	–0.3	–2.7	0.0	–0.4	0.1	–0.1	–2.8
Minerals	0.9	0.3	0.4	–1.8	2.9	–0.2	–1.2	–0.6	1.2
Chemicals	–3.6	1.5	2.8	–15.9	–1.2	–10.8	–5.7	–3.2	–7.7
Metals	–5.1	–4.5	–2.9	–12.4	2.3	–4.1	–9.2	–2.7	–4.5
Vehicles	0.8	–1.4	–1.8	–23.0	–13.5	–0.1	–5.7	0.2	–2.1
Machinery and equipment	–5.0	–7.6	–8.3	–26.8	–16.3	–5.2	–8.7	–14.2	–8.8
Electronics	–3.2	–8.5	–8.8	–2.4	–13.8	–11.1	–0.1	–1.6	–5.4
Other manufactures	–9.0	–5.6	–10.5	–0.2	–21.4	–0.8	–2.8	–0.7	–5.0
Trade and transport	–0.3	0.0	–0.3	0.3	–0.2	0.6	–1.2	0.1	–0.5
Communication services	–1.0	–2.0	–0.4	0.7	–4.8	0.4	0.4	0.4	–0.1
Other services	–0.3	–0.1	0.0	1.2	1.6	1.3	0.1	0.2	0.4

Source: Authors' simulations with GTAP-DD.

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Table A5.5: Change in exports due to high growth, quality, and variety improvements in China and India relative to baseline (percent)

Good	Egypt	Morocco	Tunisia	Algeria	Other MENA	Jordan	Lebanon	Syria	Iran
Rice	9.0	39.0	42.9	13.0	11.9	–22.2	3.3	1.9	14.8
Wheat	49.9	86.3	112.4	37.0	42.0	17.0	46.8	43.4	73.7
Grains	23.1	34.3	20.7	25.9	0.6	–15.5	9.5	15.3	24.8
Vegetables and fruits	9.8	12.8	30.6	–18.9	31.1	–14.2	16.1	9.3	52.4
Oils and fats	0.1	0.5	3.1	–38.2	4.4	–23.7	–4.5	–6.3	1.6
Sugar	–1.7	2.8	17.8	–46.1	–0.6	–27.0	–5.7	–4.5	86.4
Plant-based fibers	49.7	37.0	15.1	6.9	29.1	–15.8	27.7	59.7	19.0
Other crops	7.4	34.7	11.8	–28.1	35.8	27.3	29.5	9.8	36.5
Livestock and meat	25.5	33.5	57.6	–45.0	13.2	0.6	16.0	3.5	8.8
Dairy	24.6	14.3	30.7	–39.8	1.9	–19.4	2.4	2.1	11.3
Other processed food	–0.5	–0.6	5.3	–34.8	–1.6	–19.2	–2.3	1.7	–2.9
Energy	15.0	31.8	7.0	0.7	1.0	7.1	27.8	4.9	5.7
Textiles	–10.2	–4.2	–2.3	–57.8	–2.2	–27.7	–22.3	–21.7	–18.2
Apparel	–11.4	–12.0	–9.1	–59.3	–11.6	–45.9	–33.3	–32.0	–31.6
Leather	12.6	–8.2	–3.4	–65.5	–3.5	–44.4	–23.7	–29.8	–32.5
Wood products	1.9	–3.3	0.6	–46.5	–2.4	–35.6	–14.9	–10.7	–2.4
Minerals	8.2	1.8	0.8	–15.1	6.0	–8.7	–7.6	–16.5	22.5
Chemicals	–9.0	8.6	7.2	–56.5	0.5	–35.6	–54.3	–28.9	–6.5
Metals	–11.9	–3.8	–5.6	–59.6	19.8	–38.4	–38.2	–22.7	5.4
Vehicles	17.6	–4.8	–2.2	–47.0	–17.3	–37.0	–28.3	–3.1	–1.2
Machinery and equipment	–8.0	–16.9	–12.9	–60.7	–26.3	–33.4	–38.9	–31.0	–29.4
Electronics	–29.7	–11.9	–31.1	–71.4	–21.7	–55.4	–53.7	–35.8	–45.4
Other manufactures	–38.9	–29.3	–22.4	–65.1	–29.1	–60.0	–60.4	–44.6	–42.9
Trade and transport	0.6	5.1	5.7	–37.3	0.1	–22.8	–8.1	–4.5	–5.0
Communication services	–1.8	–3.6	1.2	–40.7	–13.3	–21.8	–6.8	–6.1	–7.2
Other services	–2.8	–1.5	2.8	–32.0	–14.5	–20.6	–0.9	–0.2	–5.9

Source: Authors' simulations with GTAP-DD.

Table A5.6: Change in output due to high growth, quality, and variety improvement in China and India relative to baseline (percent)

Good	Egypt	Morocco	Tunisia	Algeria	Other MENA	Jordan	Lebanon	Syria	Iran
Rice	2.0	–0.3	4.1	1.5	6.6	0.6	–1.2	0.2	0.5
Wheat	4.6	3.9	4.6	–5.7	10.0	0.6	–0.5	0.6	1.0
Grains	0.9	1.0	3.6	1.9	1.3	1.1	–0.7	0.7	0.5
Vegetables and fruits	0.7	3.0	1.4	0.2	10.0	0.5	–0.1	0.3	2.8
Oils and fats	–0.1	0.4	1.8	0.8	3.2	–1.5	–0.8	0.0	–0.9
Sugar	–0.4	–0.2	0.7	–9.6	0.3	0.8	–1.2	–0.7	4.1
Plant-based fibers	10.5	2.0	3.1	–2.0	24.4	–0.4	1.2	43.7	0.4
Other crops	2.6	6.7	3.9	–9.7	25.4	–0.3	0.1	0.3	1.6
Livestock and meat	0.8	–0.2	0.0	–4.1	0.4	1.9	–0.4	0.4	0.1
Dairy	0.5	0.0	0.0	–14.0	0.5	–0.7	–0.8	0.3	0.5
Other processed food	–0.2	–0.3	0.5	–0.5	0.4	–1.2	–0.9	0.2	0.2
Energy	2.0	14.6	1.9	0.6	0.8	2.2	2.9	0.2	1.7
Textiles	–1.8	–2.4	–0.3	–20.4	0.5	–22.9	–2.5	–2.2	–6.4
Apparel	–1.2	–4.7	–2.9	1.0	–7.7	–23.2	–3.1	–0.6	–3.8
Leather	0.9	–0.6	0.4	–10.5	–2.4	–1.5	–0.1	–1.1	–9.1
Wood products	–0.4	–1.1	–0.3	–2.7	0.0	–0.4	0.1	–0.1	–2.8
Minerals	0.9	0.3	0.4	–1.8	2.9	–0.2	–1.2	–0.6	1.2
Chemicals	–3.6	1.5	2.8	–15.9	–1.2	–10.8	–5.7	–3.2	–7.7
Metals	–5.1	–4.5	–2.9	–12.4	2.3	–4.1	–9.2	–2.7	–4.5
Vehicles	0.8	–1.4	–1.8	–23.0	–13.5	–0.1	–5.7	0.2	–2.1
Machinery and equipment	–5.0	–7.6	–8.3	–26.8	–16.3	–5.2	–8.7	–14.2	–8.8
Electronics	–3.2	–8.5	–8.8	–2.4	–13.8	–11.1	–0.1	–1.6	–5.4
Other manufactures	–9.0	–5.6	–10.5	–0.2	–21.4	–0.8	–2.8	–0.7	–5.0
Trade and transport	–0.3	0.0	–0.3	0.3	–0.2	0.6	–1.2	0.1	–0.5
Communication services	–1.0	–2.0	–0.4	0.7	–4.8	0.4	0.4	0.4	–0.1
Other services	–0.3	–0.1	0.0	1.2	1.6	1.3	0.1	0.2	0.4

Source: Authors' simulations with GTAP-DD.

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