ORIENTATIONS IN DEVELOPMENT SERIES

Strengthening China's and India's Trade and Investment Ties to the Middle East and North Africa

MIRIA PIGATO

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1 2 3 4 12 11 10 09

ISBN-13: 978-0-8213-7776-5
eISBN: 978-0-8213-7777-2
DOI: 10.1596/978-0-8213-7776-5

Strengthening China's and India's trade and investments ties with the Middle East and North Africa.
p. cm.
Report prepared by a team led by Miria Pigato.
Includes bibliographical references.
ISBN 978-0-8213-7776-5

1. Middle East—Foreign economic relations—China. 2. China—Foreign economic relations—Middle East. 3. North Africa—Foreign economic relations—China. 4. China—Foreign economic relations—North Africa. 5. Middle East—Foreign economic relations—India. 6. India—Foreign economic relations—Middle East. 7. North Africa—Foreign economic relations—India. 8. India—Foreign economic relations—North Africa. 9. Middle East—Commerce. 10. Africa, North—Commerce. I. Pigato, Miria. II. World Bank.

HF1583.3.Z4C459 2009
337.56051—dc22

Cover photo: Courtesy of Nakheel 2008051568

Cover design: Naylor Design

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Acknowledgments

This report was prepared by a team led by Miria Pigato and comprising Paul Brenton, Olivier Cattaneo, Julien Gourdon, Elena Ianchovichina, Maros Ivanic, Philip Keefer, Daniela Marotta, Will Martin, Claudia Nassif, and Peter Walkenhorst, with contributions from Maddalena Honorati, Sun Young Lee, and Rohit Malhotra. The report was prepared under the overall guidance of Mustapha K. Nabli while he was Poverty Reduction and Economic Management director and chief economist of the Middle East and North Africa region. Sheela Reddi performed desktop publishing for the report. The team would like to thank peer reviewers Ahmed Galal, Mona E. Haddad, and Shahid Yusuf for their guidance. The report also benefited from comments from Auguste Kouame and Ritva Reinikka. Financial support from the Multidonor Trust Fund for Trade and Development is gratefully acknowledged.

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Abbreviations

ADS	approved destination status
ASEAN	Association of Southeast Asian Nations
BIT	bilateral investment treaty
BPO	business process outsourcing
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Company
DTT	double taxation treaty
EU	European Union
FDI	foreign direct investment
GATS	General Agreement on Trade in Services
GCC	Gulf Cooperation Council
GDP	gross domestic product
GTAP	Global Trade Analysis Project
ICT	information and communication technology
IIT	intraindustry trade
IMF	International Monetary Fund
LAC	Latin America and the Caribbean
MENA	Middle East and North Africa
OCP	Office Chérifien des Phosphates
OECD	Organisation for Economic Co-operation and Development
OTEXA	Office of Textiles and Apparel, U.S. International Trade Administration
RCA	revealed comparative advantage
SITC	Standard International Trade Classification
SMART	Software for Market Access and Restrictions to Trade
TFP	total factor productivity
UN Comtrade	United Nations Commodity Trade Statistics Database
UNCTAD	United Nations Conference on Trade and Development
WTO	World Trade Organization

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Overview

The spectacular economic rise of China and India over the past 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 also on trade, investment, and political ties. Indeed, Dubai, has become the center of a new Silk Road—the intersection where people, capital, and ideas meet. And while the financial crisis that hit global markets in 2008 has placed downward pressure on growth, these new relationships are likely to deepen in the coming years.

The report's main messages are as follows:

- Demand for energy from China and India is expected to increase substantially in the future, thus greatly benefiting oil producing countries in the MENA region.
- The oil exporters in the Gulf have layed big bets on economic diversification and knowledge enterprises—bets they might win, but with lots of risk along the way. Oil price volatility may threaten the sustainability of the recent expansion.
- The non-oil-producing countries, especially in the Maghreb, are finding competition with China and India difficult in both third and domestic markets. The lack of competitive manufacturing industries and services and the insufficient attention given in the past to building technological capabilities and promoting openness and entrepreneurship are constraining these countries' 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 so, 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 Need for Sustained Growth

In 2007, before the onset of the current economic crisis, the MENA region enjoyed 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 strong rise in oil prices during 2002 to 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 tripled during 2002 to 2007. 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 to 2004. Oil-producing nations have intensified their efforts to diversify the economy. In the six resource-rich countries of the Gulf Cooperation Council (GCC), the nonoil sector now accounts for a remarkable 60 to 70 percent of gross domestic product (GDP) and a massive program of infrastructure and social spending is under way.

The oil boom has improved the region's terms of trade with China and India: MENA's export prices to China and India doubled between 2004 and 2006, while import prices rose by 25 to 30 percent. But the benefits are not distributed evenly. Oil producers have profited. The non-oil-producing countries have indirectly benefited 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. Even before the outset of the global financial crisis, the region as a whole worried about the sustainability of this growth because investments in nontradable goods affect the competitiveness of exports. In 2007–2008 many labor-abundant, non-oil-producing countries struggled with the rise of inflation caused by high food and property prices and large fiscal deficits caused by energy subsidies. While commodity prices and inflation have now eased—they still remain well above the low levels of the 1990s. MENA countries face the challenge of providing employment for a labor force that is growing at 4 percent a year, the highest rate in the world. Unemployment of 13 percent of the labor force, falls disproportionately on the

region's youth. Expanding trade with the fast-growing Asian countries may provide growth and employment opportunities.

Looking East

Although 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 from 2004 to 2006. 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 the Republic of Korea as the leading supplier of petrochemical products to China's textile industry. More than half of China's 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, telecommunications goods, and manufactured goods. Qatar, the United Arab Emirates, and other Gulf countries have specialized in reexporting, confirming their role as regional hubs.

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 received about 1.5 percent. But anecdotal evidence indicates these flows are growing rapidly. Private and institutional Gulf investors are making strategic investments in Asia and are holding a diversified portfolio of assets, with emphasis on equity and equity-like instruments. Asian companies also 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. Nevertheless, FDI from China and India is also rising in construction, tourism, telecommunications, software and engineering services, ready-made garments, chemical products, and food.

The Difficulty of Competing with Nonoil Exports from China and India in Third Markets and in Domestic Markets

Over the past decade, most countries in MENA have seen their global market share of nonoil exports stagnate or fall. Moreover, while China's

share of the EU market has risen dramatically, the importance of the European Union (EU) as a market for the nonoil exports of MENA countries has declined—significantly so for some countries. China and India have displaced some nonoil 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 U.S. 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.

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. Manufacturing with intensive use of skilled labor and technology 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. Some import surges have occurred, and their effect on domestic producers needs to be analyzed.

MENA countries participate very little in global production networks. Intraindustry trade is low and reaches only 20 to 25 percent of manufacturing trade in some MENA countries (such as Egypt and Tunisia), 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.

Unexploited Opportunities to Export to China and India

In response to global competition in their main market (the European Union), many MENA countries have started diversifying into new markets

and, to a lesser extent, into new products. Although this strategy 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 (for example, fertilizers, vegetables, and 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 within MENA countries, and in part because of the substantial trade barriers facing nonoil exports in Asian markets, notably in India.

China's and India's Limited Investment in MENA's Merchandise Sectors

Contrary to other regions, little complementarity seems to exist between trade in nonoil 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.

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 partly because of their investment strategies and the business models for implementing them—but also because of constraints in the region that might prevent FDI from generating positive spillovers. What is missing in MENA? High-quality skills; a supplier network that permits specialization and competitive costs; and a suitable physical, scientific, and institutional infrastructure.

Why Nonoil Exports Are Weak

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 nontariff protection still bias the allocation of resources within sectors toward 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.

Preferential agreements with the European Union 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. These rules are strict, requiring a double transformation in qualifying countries. As a result, most of the inputs that MENA producers use for exports to the European Union come 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. 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.

Finally, MENA's nonoil exports to China and India are small, partially because access to Chinese and Indian markets is limited. Whereas petroleum can enter China duty free and is subject to a 10 percent duty in India, nonfuel 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?

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—Egypt, Lebanon, Morocco, 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 Egypt and Saudi Arabia leading the way. Located on the fastest-growing Asia-Europe trade route, the region aims to become a hub for services facilitating the transit of goods and people. Tunisia and the Gulf countries are achieving global standards in medical services. Dubai and Qatar, with their "knowledge cities," hope to become global centers of excellence in the knowledge business.

However, MENA countries maintain behind-the-border barriers to services trade and are minimally exposed to foreign competition (including from China and India). Most countries in the region have made General Agreement on Trade in Services commitments on fewer than half of the services sectors. Air, road, and maritime transportation could become leading sectors if reforms were 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 links and leakages could be further explored.

What Does the Continuing Growth of China and India Imply for MENA?

The analysis undertaken for this book 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. As the world recovers from the current crisis, 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 non-oil-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. Therefore, all MENA countries will face increasing pressure to adjust their domestic and trade policies to increase their competitiveness and cushion the effects on their nonenergy sectors.

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 Can MENA's Oil-Producing Countries Respond?

How should MENA's oil producers manage the volatility of their higher revenues to minimize macroeconomic distortions and maximize long-run welfare? For example, the benefits of a resource boom can be large but will not follow automatically, because 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 deindustrialization.

Cooperate with China and India

Because of China's 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 also in downstream activities and in other trade and investment areas, including services. MENA oil producers have to weigh the trade-offs, including those between investing their oil wealth in downstream petroleum activities or in other activities removed from petroleum.

Embark on Grand Schemes

Leapfrogging to sophisticated manufacturing and knowledge enterprises may be a big gamble. Many investment banks have come to Dubai during the resource boom, 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.

Invest 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, Saudi Arabia, or in Qatar.

Invest in the Region

Oil-producing countries have invested massively in the region, fostering regional integration. However, by investing their capital surpluses in nontradable goods, such as real estate and land, they have exported the Dutch disease effect of oil wealth. Given the need to create jobs in non-oil-producing countries, this strategy will have to change. A great opportunity could be to invest in regional public goods, energy networks, infrastructure, 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 Can MENA's Non-Oil-Producing Countries Respond?

For labor-abundant, non-oil-producing countries, China and India amplify existing competitive challenges and pose threats to their manufacturing and possibly services sectors. Although MENA countries seem unlikely ever to specialize in manufacturing, they can focus on niche products where they enjoy strong comparative advantages.

Exploit Proximity

What is needed is a switch to new products and new markets, avoiding reliance on production where Chinese and Indian 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 to specialize in time- and fashion-sensitive products.

Create a More Equitable Business Environment

Although 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.

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 strategy 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 geographic 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 European Union. Although multilateral negotiations would also benefit China and India, the request-offer process at the World Trade Organization is mostly bilateral. MENA countries thus have a strong interest in participating in the Doha Round, so their requests for opening sectors of comparative advantage prevail over those of 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.

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 (for example, air links) could foster integration into global value chains. Promoting learning about the two countries and their languages would also help. On services, a strong incentive exists to negotiate agreements with China and India to preserve market shares, to reinforce the security and predictability of service trade transactions, and to gain broader access to markets. A question remains, however: Is the interest of MENA countries served by allowing 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.

Conclusion

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, non-oil-producing countries, competition with China and India will spotlight the need for policy measures to increase productivity. Meeting this need 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.

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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, thus presenting both challenges and opportunities for the rest of the world. China's and India's trade with the Middle East and North Africa (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, future effects will likely be substantial. This chapter describes the evolution of MENA's trade relations with China and India until the onset of the recent global economic crisis. 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.

Intensified Trade Relations

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 United Kingdom and United States. They conclude that the latter rates were much lower than China's has been. The nearest parallel to the situation in China was that in the United States over the period from 1820 to 1870. During that period, incomes in the United States more than doubled in a single generation. At the current growth rates and life expectancies, incomes in China would rise manyfold in a generation. Even though China and India are not the dominant forces in the world economy, their industrialization had an impact on the world economy. Trade links 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

TABLE 1.1

Selected Economic Indicators

Indicator	MENA		China		India	
	1990–91	2005–07	1990–91	2005–07	1990–91	2005–07
Population (million)	231.1	310.4	1,150.3	1,313.0	866.3	1,109.0
Population (as a % of world population)	4.3	4.8	21.6	20.0	16.2	17.0
GDP at current market price (US$ billion)	510.6	1,532	383.1	2,461.0	276	802.6
GDP real growth (%)	3.6	5.4	8.2	11.2	4.6	9.1
GDP (as a % of world GDP)[a]	2.2	2.5	1.7	5.1	1.2	1.8
GDP per capita (purchasing power parity, US$)	5,424	7,639	1,146	4,971	1,197	2,532
Trade (as a % of GDP)	70.3	92.0	38.8	70.3	17.2	43.5
Exports (as a % of GDP)	33.5	54.1	20.9	38.5	8.3	20.0
Share in world exports (%)[a]	3.8	4.5	1.5	5.8	0.5	1.1
Manufactured exports (as a % of total)[a]	12.2	9.3	82.0	83.2	56.2	43.2

Sources: World Bank World Development Indicators database; World Bank 2008b.

a. Refers to averages for 2005–06.

channel through which China's growth and, more recently, India's growth are affecting other developing countries.

Only 15 years ago, China and India jointly produced less than 3 percent of the world's gross domestic product (GDP), just above MENA's share (table 1.1). By 2005 to 2007, they produced 7 percent of world GDP, nearly triple MENA's 2.5 percent. MENA as a whole has a population of 310 million, less than 5 percent of world total. It has vast desert areas, scarce water resources, and enormous oil and gas resources, and it is rich in phosphate rock, cobalt, and manganese. Because of these resources, MENA's GDP per capita (in purchasing power parity) has been high—and is higher than both India's and China's. During the past five years, the region has enjoyed strong economic growth, driven by high oil prices, greater integration of countries within the region, greater integration with the rest of the world, and acceleration in market-oriented reforms. The rise in oil prices from US$25 per barrel in 2002 to almost US$140 in mid 2008 bestowed an unprecedented windfall on 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.

The Challenge of Creating Employment

MENA is a heterogeneous region, comprising 19 nations with different socioeconomic and political characteristics. Yet the similarities among these nations are many. During 2003–2007, oil has provided the basis for economic growth, either directly in oil-producing countries or

indirectly in the rest of the region through investment, 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 important, as a result of past demographic trends, they all face the dramatic challenge of providing employment for a labor force that is growing at 4 percent a year, the highest in the world. Unemployment is high—12 to 13 percent of the labor force—despite recent declines, and it falls disproportionately on the region's youth. Although 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 subgroups: the six resource-rich economies that are members of the Gulf Cooperation Council (GCC) and the remaining economies, 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 past 10 years.

China and India: Strong Trading Partners for MENA

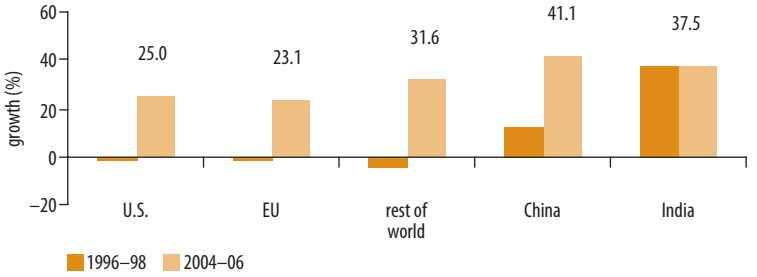
MENA's share of world exports, 4.5 percent in 2005 to 2006, is significantly higher than India's and only slightly below China's, reflecting the predominance of energy exports, which represent half of total exports. Manufacturing, typically the most labor-intensive sector, is small in MENA and one of the lowest in the world. Thus, MENA's share of manufactured products in total exports is about 9 percent, China's is 83 percent, and India's is 43 percent. Moreover, as shown in table 1.1, this share has decreased from the early 1990s. The region's weak performance in manufactured exports reflects the weaknesses of the private sector and its inability to support economic growth in a sustained manner (World Bank 2008c).

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 European Union (EU) and the United States, but there has been a move toward Asian markets. Total merchandise exports to China and India accounted for more than 15.5 percent of MENA's total exports in 2006, up from 4.7 percent in 1995. These exports are growing at an impressive speed: exports to China rose 41.1 percent from 2004 to 2006 and those to India rose 37.5 percent—almost twice the growth of exports to the EU and the United States (figure 1.1).

Strong growth between (a) MENA and (b) China and India, together with the complementary nature of trade flows, largely explains the surging exports and imports of recent years. For example, MENA's merchandise

FIGURE 1.1

MENA's Exports Growth, by Destination, 1996–2006



Source: International Monetary Fund Direction of Trade statistics for 2007.

real exports to China and India have increased by six and three times, respectively, during 1995 to 2005 (figure 1.2). Countries in the region are indeed looking east.

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

Dubai and Abu Dhabi as Reexporting Centers

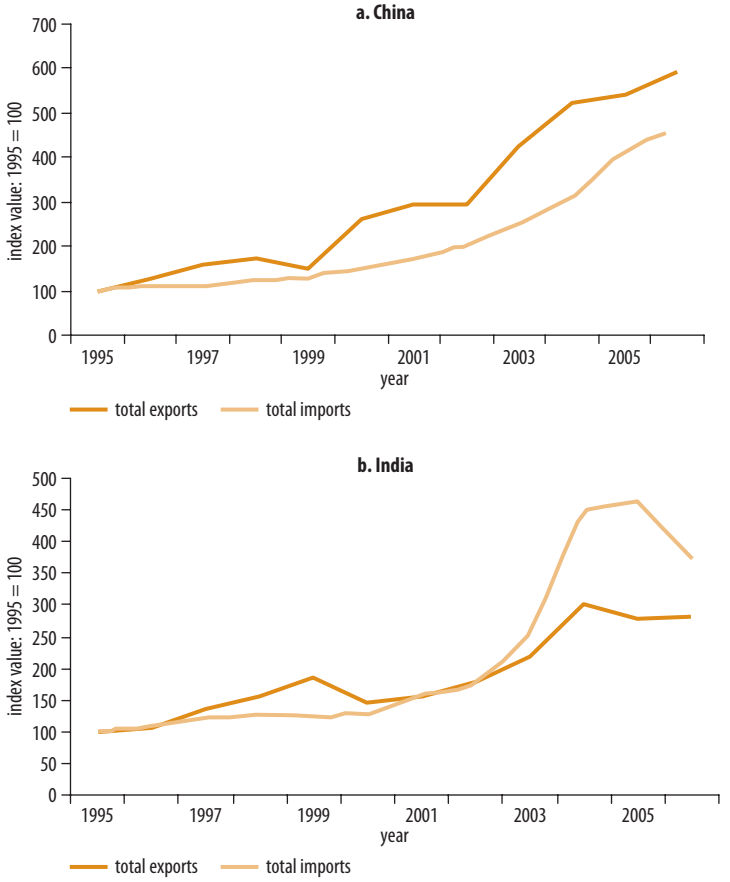
One important characteristic differentiates trade with China and India in the GCC and such trade in the labor-abundant countries. The share of products that are imported and reexported is extremely high in some GCC countries, representing, for example, 56.5 percent in Qatar and 84.5 percent of manufactured exports in the United Arab Emirates (table A.8 in appendix A). These goods originate in third countries but are routed through GCC ports, particularly Dubai. This activity confirms the increasingly important role cities such as Dubai or Abu Dhabi play as regional hubs. By contrast, reexports are insignificant in the labor-abundant countries. Three-quarters of total reexports in the GCC countries concern machinery and transport equipment.

The Key Position of Energy

Chinese oil imports from the Middle East (mainly Persia) can be traced back over a millennium, to the Tang and Song dynasties. However,

FIGURE 1.2

MENA's Merchandise Trade with India and China, 1995–2005



Source: United Nations Commodity Trade Statistics Database (UN Comtrade).

Note: The increase in MENA's imports from India in 2004 and 2005 is mainly due to the rapid increase in the United Arab Emirates' imports from India.

imports increased significantly only in the late 1980s as China's growth picked up. They initially came from Oman and the Republic of 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 crude oil with high sulfur content from the Islamic Republic of Iran and Saudi Arabia.

MENA holds more than 60 percent of the world's proven oil reserves, nearly half of the world's 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 availability of energy imports. Consumption rates of oil

and gas in the two Asian countries could continue growing at more than twice the global average, despite increased efficiency use. This growth is because of fast urbanization and industrialization rates, which are reflected, for example, in rising ownership rates of vehicles. More than half of energy imports into China and India come from MENA (up from a third 10 years ago). Ensuring adequate oil and gas supplies is therefore a top priority for the Asian countries. Moreover, MENA's abundance of energy reserves, which are mostly located in the Gulf region, as well as the proximity of these reserves to Asia, has made developing 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 countries that have just discovered new fields (for example, in Latin America or the Caspian region). Access to oil and gas equity has traditionally been either closed or very limited in countries in MENA, and Asian companies have therefore focused on developing the downstream industry (see chapter 4).

In January 2006, Saudi King Abdullah bin Abdul-Aziz al Saud visited China and India—his first foreign trip since he assumed power in August 2005—marking the beginning of a strategic shift in Saudi Arabia's foreign policy. At the conclusion of that visit, a new partnership was created: 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 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.

The effect 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, respectively, in 2005 to 2007, up from 27 percent and 3 percent, respectively, in 2000 to 2003. India's contribution to the increase in global demand for oil and gas was less than 15 and 5 percent, respectively, in 2005 to 2007. Thus, the growth of energy demand in China and India has contributed to the rise in energy prices in recent years, though there have been other factors. In turn, the surge in energy prices has greatly benefited MENA, 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.

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

TABLE 1.2

Contribution of China and India 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

Source: U.S. Energy Information Administration data.

Note: Oil price data refer to U.S. refinery acquisitions and the cost of imported crude oil. Gas price data refer to the price of U.S. natural gas imports, in U.S. dollars, per thousand cubic feet. Gas consumption data refer to the latest available 2006 projections.

FIGURE 1.3

MENA's Rising Terms of Trade with China and India, 2000–06

Sources: UN Comtrade; World Bank statistics; U.S. Department of Labor statistics.

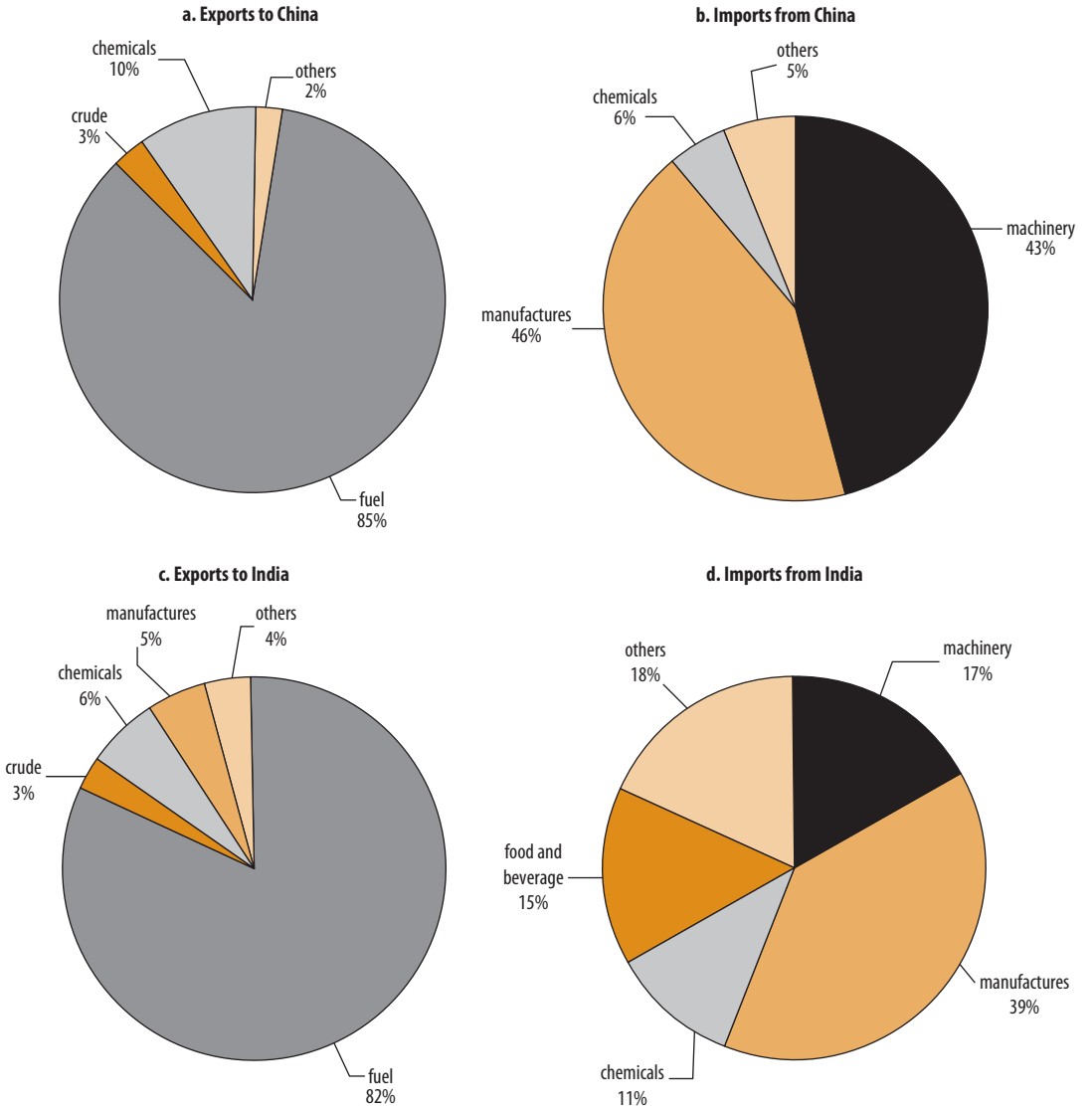
almost doubled between 2000 and 2006, spurred by the rise in oil prices for fuel commodities, while import prices rose by 25 to 30 percent. Regionwide averages hide country differences, and resource-poor countries have suffered because of the high oil import bill. The macroeconomic consequences of a 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 deindustrialize the economy by attracting resources away from the nonoil sectors and raising the prices of nontradables in the economy (thus further lowering the competitiveness of tradables). Typically, however, governments try to raise competitiveness through measures such as technological improvement. They may, indeed, have done so in many resource-rich countries. Oil-importing countries that are also exporters of manufactured goods 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.

MENA's nonoil 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 of such exports to India (figure 1.4). (Table A.5 in appendix A shows the evolution of imports and exports to China and India from

FIGURE 1.4

MENA's Composition of Trade with China and India, 2006



Source: UN Comtrade.

1995 to 2006.) Nonoil 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, textiles, garments, telecommunications equipment, and toys.

The Effects of China and India on MENA's Trade

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, India, Japan, and the Russian Federation. But in the Arab Republic of Egypt, about 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 points 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 countries in MENA and how these countries have adjusted to the growing competition. The growth of China and India may affect the trade flows of countries in MENA in three main ways: (a) greater competition in third markets, (b) greater competition in MENA's domestic markets, and (c) greater exports to China and India (box 1.1).

BOX 1.1

Effect 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 Özden 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; hence, developed economies have little reason to be concerned, but other labor-abundant developing

(Box continues on the next pages.)

BOX 1.1 (continued)

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 2007). India's exports are frequently capital and skill intensive; China's are labor intensive, if increasingly sophisticated (Rodrik 2006). China's rank in the similarity of its export bundle with the Organisation for Economic Co-operation and Development 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 (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's 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 United States 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's 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 Ünal-Kesenci 2004). This makes participants in the process beneficiaries of, rather than victims of, improvements in the competitiveness of their partners. And 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 an important 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.

(Box continues on the next page.)

BOX 1.1 (continued)

In energy, China ranks second or third after the United States (Streifel 2006). India and China are important consumers of agricultural commodities, with India leading the world in 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 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. Oil-exporting countries in MENA are expected to satisfy an increasing share of this demand.

Are Exports from China and India Displacing MENA's Exports in Third Markets?

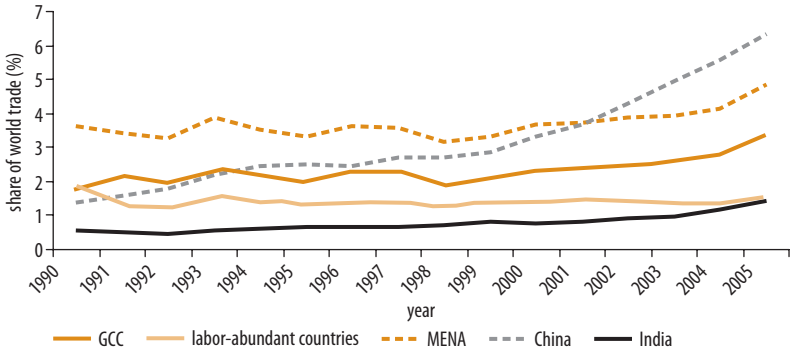
Countries in many regions are concerned about growing competition from China and India (see box 1.2 for information about Latin America and Africa). MENA increased its share in world trade by 1 percentage point between 2000 and 2005, less than China but more than India (figure 1.5). At a first glance, there is thus no need for countries in the region 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 countries. Only the GCC countries gained market shares, mostly because of higher energy exports. By contrast, the labor-abundant countries lost shares (see chapter 2). The bulk of China's and India's exports are manufactured products, which compete with exports from the Maghreb countries. So have MENA's nonoil exports been displaced in third markets as a result of China's and India's growing presence?

Displacement of Some of MENA's Nonoil Exports by Chinese and Indian Exports

The question is investigated econometrically,[2] using a regression specification that explains the export growth of countries in MENA in world markets in terms of either China's or India's exports as well as import growth to the same markets. Only nonfuel products are included in the analysis, and the study distinguishes between industrial products (steel, textiles, apparel, 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

FIGURE 1.5

Shares in World Trade of Goods and Services



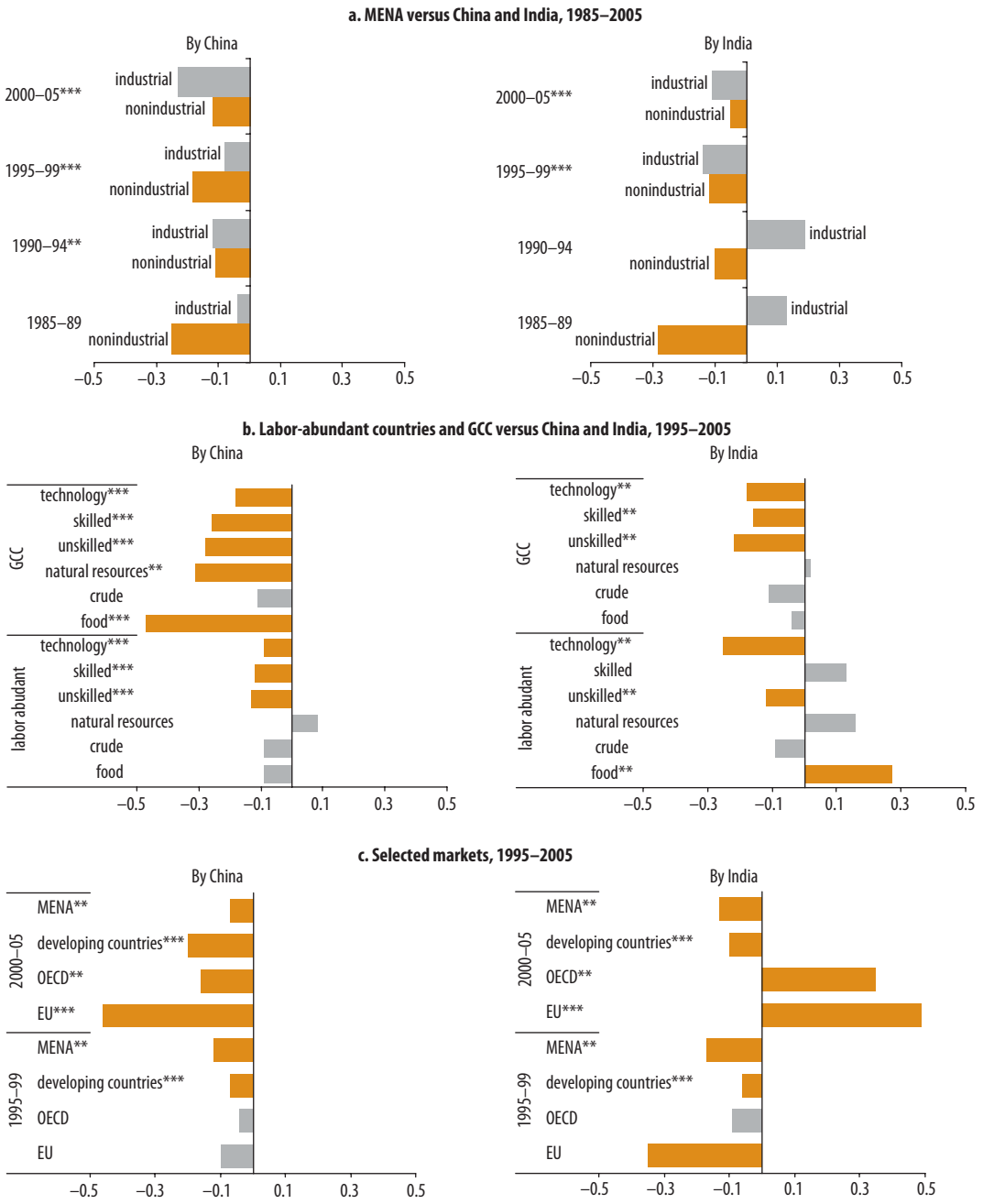
Sources: World Bank World Development Indicators database and staff calculations based on an index: $(X_{mena} + M_{mena})/(X_w + M_w)$.

than exports of other countries, when the overall exporter supply growth is controlled for. Table A.6 in appendix A reports the results from the regression analysis. To the extent that China's (India's) export growth does not impact MENA exporters specifically, the for regression coefficient China (India) should be zero. The coefficient for countries in MENA is lower than 1.0 (about 0.4), confirming that MENA's export growth has been slower than that of the world without China and India. The negative coefficients on Chinese and Indian 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's exports more than Indian exports are. Industrial products such as textiles and apparels are more affected by China's export growth than are nonindustrial products like crude materials, particularly in 2000 to 2005 (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 industries that are unskilled-labor-intensive or high-technology-intensive. Exports from industries that are medium-technology-intensive are little affected.

China's effect is much stronger than India's effect. China had a displacing effect throughout the period of analysis, 1985 to 2005, for the exports of both the GCC and the labor-abundant countries. India became a strong competitor only after 1995. And since the early 2000s, competition from India has been declining, but that from China is becoming fiercer. 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

FIGURE 1.6

Displacing MENA's Exports



Source: Staff calculations based on UN Comtrade.

Note: * = significant at 10 percent; ** = significant at 5 percent; *** = significant at 1 percent. On the horizontal axis, the figures show the regression coefficient. If the coefficient is negative, MENA's export growth is low when Chinese or Indian export growth is large and growing. A coefficient of –0.5 implies that for a product with a Chinese or Indian market share of 10 percent and Chinese or Indian export growth of 20 percent, the export growth in MENA would be reduced by (0.5 × 0.1 × 20) = 1 percentage point.

responsible for the negative impact on MENA's export growth in nonindustrial products because India's effect diminished over the time.

Exports from labor-abundant 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 countries in MENA enjoyed preferential market access to their major markets, the European Union, and the United States. 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.

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 the Caribbean (LAC) (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 countries in LAC and that there is significant heterogeneity in effects across subregions. First, the growth of the two Asian economies, particularly China's, offers a growing opportunity for exporters from LAC 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 its becoming an important source of financing for economies in LAC is great. In terms of innovation, the scope for bilateral cooperation is large and is exemplified by the Brazil-China 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 Chile and China in the areas of mining and geosciences, plant quarantine, and forestry.

Moreover, there is evidence of positive overall effects for the economies of LAC 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 that of Latin American 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 production opportunities facilitated by cheaper imports, lower cost of capital, and innovation are some additional channels through which trade, foreign direct investment (FDI), and innovation externalities may have positively affected LAC.

(Box continues on the next pages.)

BOX 1.2 (continued)

Lederman, Olarreaga, and Perry (2006) also report that aggregate gains have been accompanied by some pain, as some industries, firms, and subregions have been negatively affected by the rapid growth of the two Asian economies. However, most of the deterioration of LAC's exports in third markets has to do more with domestic supply-side conditions than with lower demand for LAC's products because of China's 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's and India's manufacturing sectors, particularly in 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 past decade. However, LAC's exports of services to the United States (its main export market) are seven times larger than those of China and India. This trend partly reflects one large advantage of LAC over China and India for the delivery of services to U.S. consumers: proximity. Proximity is particularly important in the tourism subsector, where LAC has been performing relatively well when compared with the rest of the world, but also in health and retirement services. In terms of displacement of LAC's service exporters by India, only one of the eight service subsectors examined (other business, professional, and technical services) offers robust evidence of India's export of services displacing LAC's exports. For other subsectors, the impact of India's growth on LAC's exports of services is not robust across specifications.

A recent study (Foster, Butterfield, and Chen 2008) documents that China, India, and a few Middle Eastern Gulf nations are providing a record amount of financing for infrastructure projects across Sub-Saharan African. Investment commitments in Africa by these emerging financiers jumped from less than US$1 billion per year before 2004 to US$8 billion in 2006 and US$5 billion in 2007, signaling a growing trend in cooperation among developing countries.

The opportunities and challenges posed by China and India for Africa were studied in a World Bank report by Broadman (2007). Specifically, the volume of African exports to Asia is growing at an accelerated rate: whereas exports from Africa to Asia grew annually by 15 percent between 1990 and 1995, they grew by 20 percent between 2000 and 2005. 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 U.S. 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 past 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. Since the early 2000s, they have grown at an 18 percent annual rate, higher than that of any other

(Box continues on the next page.)

BOX 1.2 (continued)

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 nondurables 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 with that of trade. Although 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, agroprocessing, power generation, road construction, tourism, and telecommunications, among others. Chinese and Indian FDI in Africa has also become more diversified geographically (Broadman 2007: 12).

Using statistical analysis at the country level, Broadman (2007: 27) 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 non-oil-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's and India's growth has provided significant opportunities for Africa, but Broadman notes that heterogeneity of country characteristics within Africa implies that the challenges and opportunities offered by China and India might vary equally and substantially within Africa.

MENA's Retreat from Competition with China and India

The emergence of China and India has altered in significant ways production location decisions in the international economy. Technological progress in these economies combined with the large availability of low-wage labor has made them an attractive location in which to undertake production. This situation raises important questions for countries in MENA concerning the pattern of specialization and trade in these economies. Did these 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.

To compare how China's and India's growing presence in world markets may be affecting the specialization pattern of MENA's economies, this study follows closely the analysis of Lederman, Olarreaga, and Rubiano (2006) and proceeds as follows. An index of revealed comparative advantage (RCA) is constructed at the global level that accounts for both exports and imports, as well as for 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 1991). 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.

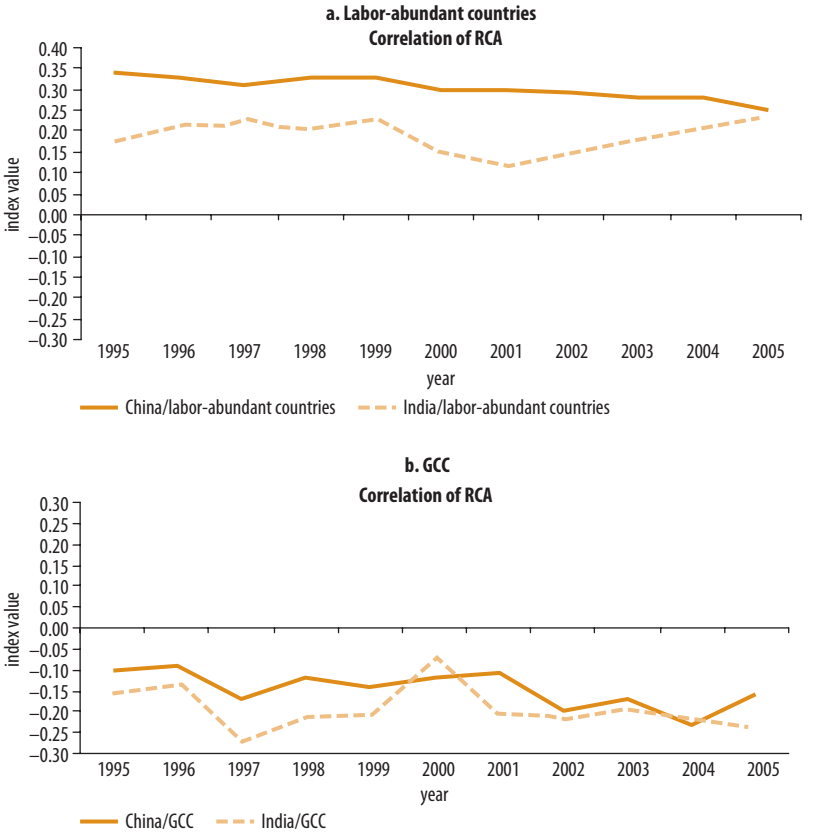
The analysis is conducted at the sectoral level for both GCC and labor-abundant countries; contrary to the analysis in the previous section, fuel exports are included here. The distinction between the oil sector (more generally, the natural resource sector) and the other sectors is clearly made, country by country. 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's exports.

The evolution of the correlation between Chinese and Indian RCAs for the labor-abundant countries between 1995 and 2005 is 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 as the labor-abundant countries. By contrast, correlation between exports of China and India with the exports of the GCC countries has traditionally been negative, indicating a strong complementarity. If anything, this trend has intensified in recent years, probably because of the disappearance of exports similar to those from China and India, as discussed in the previous section.

Following Lederman, Olarreaga, and Rubiano (2006), the study then analyzes whether labor-abundant and GCC countries' specialization patterns with China and India exhibit substitutability or complementarity (table A.7 in appendix A). In the case of China, there is some substitutability—and therefore competition—for products requiring skilled labor and technology-intensive products in both labor-abundant and

FIGURE 1.7

Correlation of MENA's Revealed Comparative Advantage Indexes with China's and India's



Source: UN Comtrade, revision 2, 3 digits.

GCC countries. In the case of India, there appears to be substitutability in both products requiring skilled labor and those using unskilled labor, 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.[3]

The Growing Presence of China and India in MENA's Markets

Countries in MENA have partially opened their markets to products from China and India. And in some countries, these products have gained popularity and have 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 the absence of firm-level data and industry data beyond 2004, the study relies on international trade data to have an insight on import-competing sectors. The results should therefore be treated with caution because they are merely suggestive rather than conclusive.

Labor-intensive industries are most exposed to competition. Comparing MENA's 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).[4] 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, the food sector is likely under strong competition from China and India. More generally:

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

TABLE 1.3

Competition in 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 countries	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.

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

Looking East: Is MENA Seizing Opportunities in Trade with India and China?

Countries in MENA export a wide range of products to the two Asian countries (table A.5 in appendix A). Are they seizing all existing export opportunities? The issue will be further investigated in chapter 2. As a first assessment, the study reviews the RCAs of MENA's exports and filters out those products with a positive RCA, for which average growth in exports to China and India was lower than the average growth of Chinese and Indian imports of the same products from other countries. The idea is to find MENA's products of demand in China and India that are not being exported in sufficient quantities even though they grew strongly in other markets (table 1.4). The analysis, performed at the three-digit level, yields the following results:

- In labor-abundant countries, 20 of the 109 product categories with positive RCAs have relatively weak growth and have underperformed in the Chinese market. These 20 product categories include food (vegetables and confections) and crude materials. In the Indian market, 31 of 109 product categories show lackluster growth, among them wood, aluminum, chemicals, and yarns.
- For GCC countries, China and India 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, and skins; and stone, sand, and gravel.

TABLE 1.4

MENA Exports That Underperformed in China and India

		Food	Crude materials	Natural resources	Unskilled labor	Skilled labor	Technology	Total
Labor-abundant countries	RCA > 0	24	23	16	20	11	15	169
	Underperform in China	7	4	5	1	0	3	20
	Underperform in India	4	5	5	11	2	4	31
GCC countries	RCA > 0	15	22	11	10	13	20	91
	Underperform in China	1	12	5	1	2	2	23
	Underperform in India	6	7	2	1	2	5	23

Source: Staff calculations based on UN Comtrade.

Conclusion

The rise of China and India has sustained high global demand and prices for such primary commodities as oil, gas, and minerals, thereby presenting huge opportunities for MENA—but also significant threats for nonoil 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 countries in the region, there appears to be a further movement in favor of natural resources and an even more concentrated bundle of exports.

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

MENA's integration with China and India is increasing. This trend brings benefits to countries in MENA, 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 countries in the region. 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 nonoil exports from labor-abundant countries.

Notes

1. The GCC economies are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The labor-abundant economies are Algeria, Djibouti, the Arab Republic of Egypt, the Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Morocco, the Syrian Arab Republic, Tunisia, the West Bank and Gaza, and the Republic of Yemen. However, for lack of data and information, some economies, such as the Islamic Republic of Iran, Iraq, Libya, and the West Bank and Gaza, are not included in some of the tables and analysis.

2. This analysis follows Freund and Özden (2006) and estimates the following regression equation for the exports of MENA

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

where $dchina_{jkt}$ ($dindia_{jkt}$) is growth of China (India) exports in country j in sector k and $dimports_{jkt}$ is imports from all (non MENA) countries other than China (India). The advantage of this specification is that it exploits both cross-section and time-series variation to estimate how China and India affect countries in MENA. 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's export growth in a given industry. This equation is estimated using data from 1985 to 2005 with the four-digit Standard International Trade Classification, excluding fuels but keeping other crude materials. The reason for excluding fuels is to focus on how nonoil exports of both GCC countries and labor-abundant countries are affected.

3. The empirical methodology is straightforward. The RCAs of MENA in relation to those of China and India are explained, as well as the bilateral exports of each economy in the region 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 $RCA_{c\in MENA,s,t}$ is the RCA of country c (belonging to the 15 countries that compose MENA) in sector s, at time t; XN represents the net bilateral exports of each economy in MENA to either China or India, depending on the variable; and $\in$ is an error term, where clustering of the error term within each industry every year is allowed. These models are estimated for the pooled sample of 15 countries, as well as for the two country groups (labor-abundant and GCC countries). All estimations include country effects and year effects. This equation is estimated using data from 1985 to 2005 on the three-digit Standard International Trade Classification. The advantage of this specification is that it exploits both cross-section and time-series variation to estimate how China and India affect specialization in MENA. 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 economies in MENA.

4. Notice that here the implicit assumption is that the exported products are or could be sold domestically. Tables A.11 and A.12 in appendix A show a number

of products (at Standard International Trade Classification three-digit level) for labor-abundant and GCC countries with the following characteristics: they are all exported, they have positive RCAs, and 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 and 2005.

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CHAPTER 2

Nonoil 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 the countries of the Middle East and North Africa (MENA) or reinforce existing policies? This chapter discusses the challenges facing MENA's labor-abundant countries in world markets, specifically those for nonoil exports, which appear to be threatened by competition with Asian countries. Global competition, including competition with China and India, has resulted in considerable change of the economic structure and exports from MENA's labor-abundant countries and in 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.

Nonoil Export Growth and Diversification

Chapter 1 documented how competition in world markets, including competition from China and India, is putting pressure on nonoil exports of labor-abundant countries in MENA. Table 2.1 summarizes the export growth performance of several of these labor-abundant countries (excluding mineral fuels and erratic items such as ships and airplanes) from 1995 to 2006, when competition in global markets from India and especially China 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 their global market share in the face of increasing competition from China and India; other countries have seen their global market share stagnate or decline. Countries such as the Arab

TABLE 2.1

Export Growth and Change in Market Shares, 1995 and 2006

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, Arab Rep. of	272.1	66.9	177.8	41.1	52.8	39.4
Iran, Islamic Rep. of	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
Syrian Arab Rep.	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 data from the United Nations Commodity Trade Statistics Database (UN Comtrade).

Note: Data exclude mineral fuels and large erratics (ships and planes).

Republic of Egypt and Jordan have been able to increase their share of the international market, whereas Morocco, the Syrian Arab Republic, and Tunisia have seen their share decline.

Interestingly, the European Union (EU) has become an increasingly important export market destination for China but less so for exports from MENA. In 1995, the European Union received at least 75 percent of Maghreb's exports; it also received about 50 percent of exports from Egypt, the Islamic Republic of Iran, and Syria but much less of Jordan's and Lebanon's exports. 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' shares in the EU market declined. The final two columns of table 2.1 show the share of each country's total exports to the European Union. This share declined for all MENA countries, as well as India, but increased for China. Thus, from 1995 to 2006, the importance of the European Union as a market for the nonoil exports of MENA countries declined, and significantly so for the Islamic Republic of Iran, Jordan, Lebanon, Morocco, and Syria. Algeria and Egypt managed to increase their share of the EU market while the proportion of their exports going to the EU declined; hence, they showed strong export performance in the European Union together with export market diversification. Except China, all countries have seen the importance of the European Union as a market for their exports fall.

What are the determinants of performance of China, India, and MENA countries in the EU market? Table B.1 in appendix B shows the main drivers of the changes in market shares to the European Union, using constant market share analysis.[1] China's penetration of the EU market during 1995 to 2006 was spectacular. The analysis shows that it was caused not only by increasing demand in the EU market but also by 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, mainly because of declining competitiveness. In a number of cases, declining competitiveness has been somewhat offset 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

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* (that is, 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 to 2005 (table 2.2). Only for Jordan and Tunisia is the contribution of the *intensive margin* (that is, the change in export flows resulting from growth in existing export flows) greater than that of the extensive margin. This finding 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.[2]

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.[3] 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 exports from MENA countries, an indication of the profound transformation occurring in their production systems.

TABLE 2.2

Decomposition of Export Growth into Intensive and Extensive Margins, 1995–2005

	Algeria	Egypt, Arab Rep. of	Iran, Islamic Rep. of	Jordan	Lebanon	Morocco	Syrian Arab Rep.	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: World Bank staff calculations based on data from UN Comtrade.

Table B.4 in appendix B 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 effect of China's exports. 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 boys' 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 finding 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 the Islamic Republic of Iran to certain markets but have also been a key source of declining exports to other markets. Similar patterns are found for phosphoric acid for Morocco, ammonia for Algeria, and potassium chloride for Jordan. These findings suggest 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 did other countries. The increase in exports of existing products to new markets is the dominating effect.

Can a causal link be identified between China's strong export performance, as measured by the increase in its global market share, and MENA countries' export outcomes? This relationship is difficult to assess. For example, in many cases, the products 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 Egypt, Morocco, and Tunisia and of the increasing importance of intermediate and semifinished goods for many countries in the region. Thus, the analysis suggests a complicated picture of export growth at both the intensive and the extensive margins and shows that MENA countries are in the midst of important intrasectoral reallocations of resources to adjust to competition.

Penetration of New Markets by MENA Exporters

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.[4] In 1995, MENA countries were exploiting a very small percentage of available export opportunities, particularly when compared with countries of similar economic size in Eastern Europe (table 2.3). From 1995 to 2005, most countries—especially Egypt, Jordan, and Lebanon—increased their ability to penetrate new markets, but competing countries performed even better. The data suggest that many opportunities for increasing exports of existing

TABLE 2.3

Export Market Penetration Index, 1995 and 2005

Country	1995	2005
MENA		
Algeria	2.0	2.4
Egypt, Arab Rep. of	6.5	11.3
Iran, Islamic Rep. of	4.6	6.9
Jordan	2.8	4.8
Lebanon	4.1	7.5
Morocco	6.0	8.7
Syrian Arab Rep.	4.3	7.2
Tunisia	4.4	7.7
Eastern Europe		
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: World Bank staff calculations based on data from UN Comtrade.

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 few of their available market opportunities and less than 10 percent of opportunities in China and India.

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. All MENA countries—particularly Egypt and Morocco—appear to have moved into more markets, although the earlier discussion of export market penetration demonstrates that enormous potential exists to exploit additional market opportunities for existing products to further drive export growth.

TABLE 2.4

Bilateral Export Market Penetration Indexes, 2005

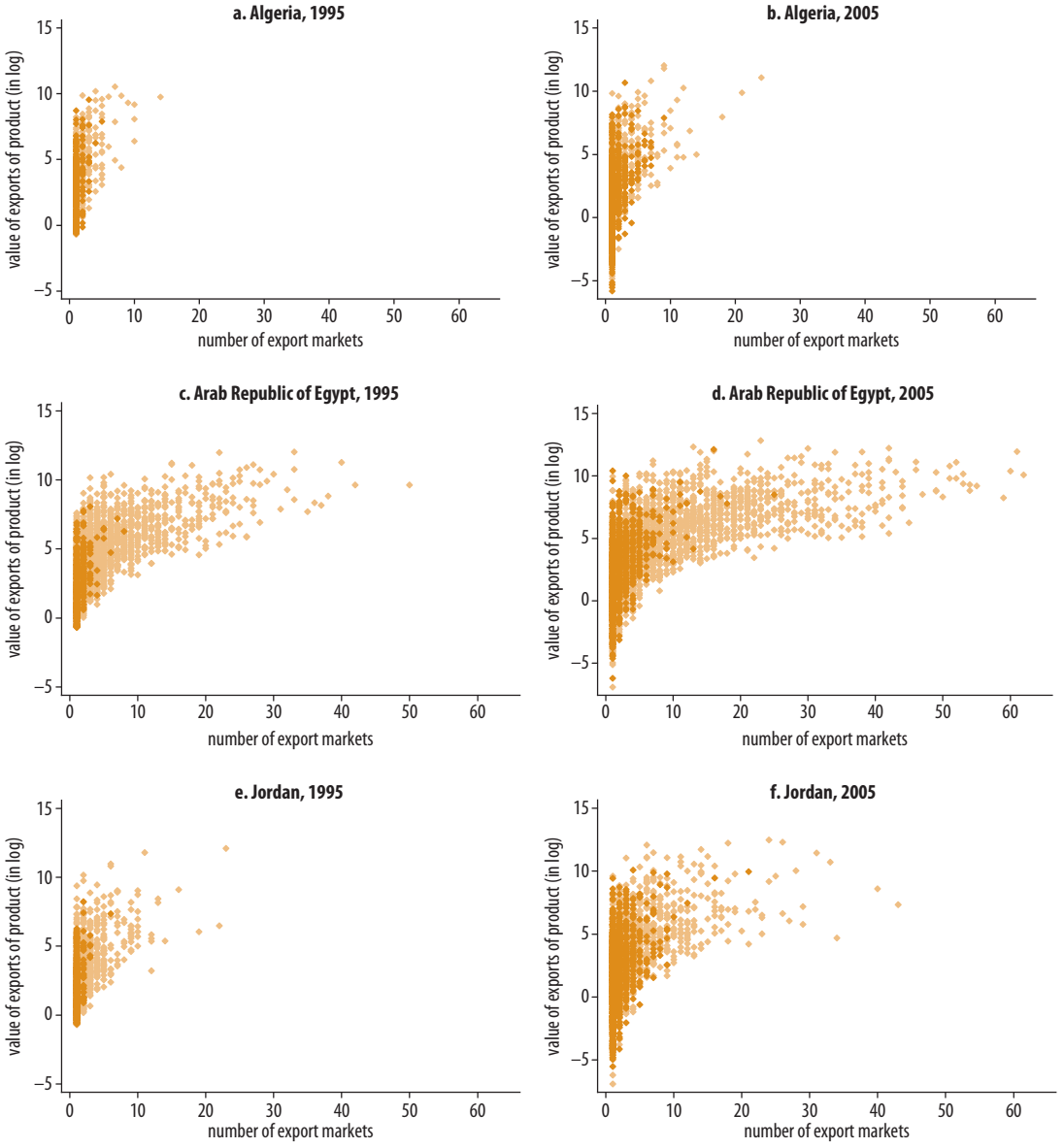
	Exporter (% of market penetration)							
Importer	Algeria	Egypt, Arab Rep. of	Iran, Islamic Rep. of	Jordan	Lebanon	Morocco	Syrian Arab Rep.	Tunisia
Belgium	9.0	17.3	6.3	4.6	12.9	25.9	9.6	28.1
France	32.5	26.6	17.7	6.1	21.8	57.3	18.5	61.3
Germany	7.4	33.2	32.9	11.5	16.7	33.5	18.7	36.2
Greece	1.0	22.0	3.4	3.6	9.1	7.1	11.8	6.2
Italy	18.3	34.0	18.2	9.8	18.8	36.9	17.8	50.4
Netherlands	4.2	18.4	13.0	7.5	7.7	20.8	7.1	15.6
Portugal	3.4	7.1	3.0	1.6	2.1	19.4	0.7	11.0
Spain	19.9	27.1	15.3	11.2	19.1	57.0	12.9	29.5
United Kingdom	8.6	29.4	16.5	13.3	16.0	28.1	14.6	19.7
United States	3.8	27.2	5.8	20.6	19.5	26.1	13.1	17.2
Algeria	—	29.9	4.9	12.5	13.7	17.0	34.2	38.4
Egypt, Arab Rep. of	2.6	—	4.2	26.6	18.3	2.9	19.8	4.7
Jordan	1.0	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
Syrian Arab Rep.	0.8	19.8	6.4	16.2	19.2	1.1	—	1.3
Tunisia	11.0	18.3	2.3	4.3	6.9	24.2	14.5	—
Saudi Arabia	5.8	69.9	34.2	56.3	56.1	23.2	72.5	18.7
Turkey	9.8	19.6	25.8	10.8	6.5	16.5	12.2	14.5
China	6.3	12.8	15.0	8.0	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: World Bank staff calculations based on data from UN Comtrade.

Note: — = insignificant. The Islamic Republic of Iran and Lebanon did not report import data in 2005 and thus are not included among importers.

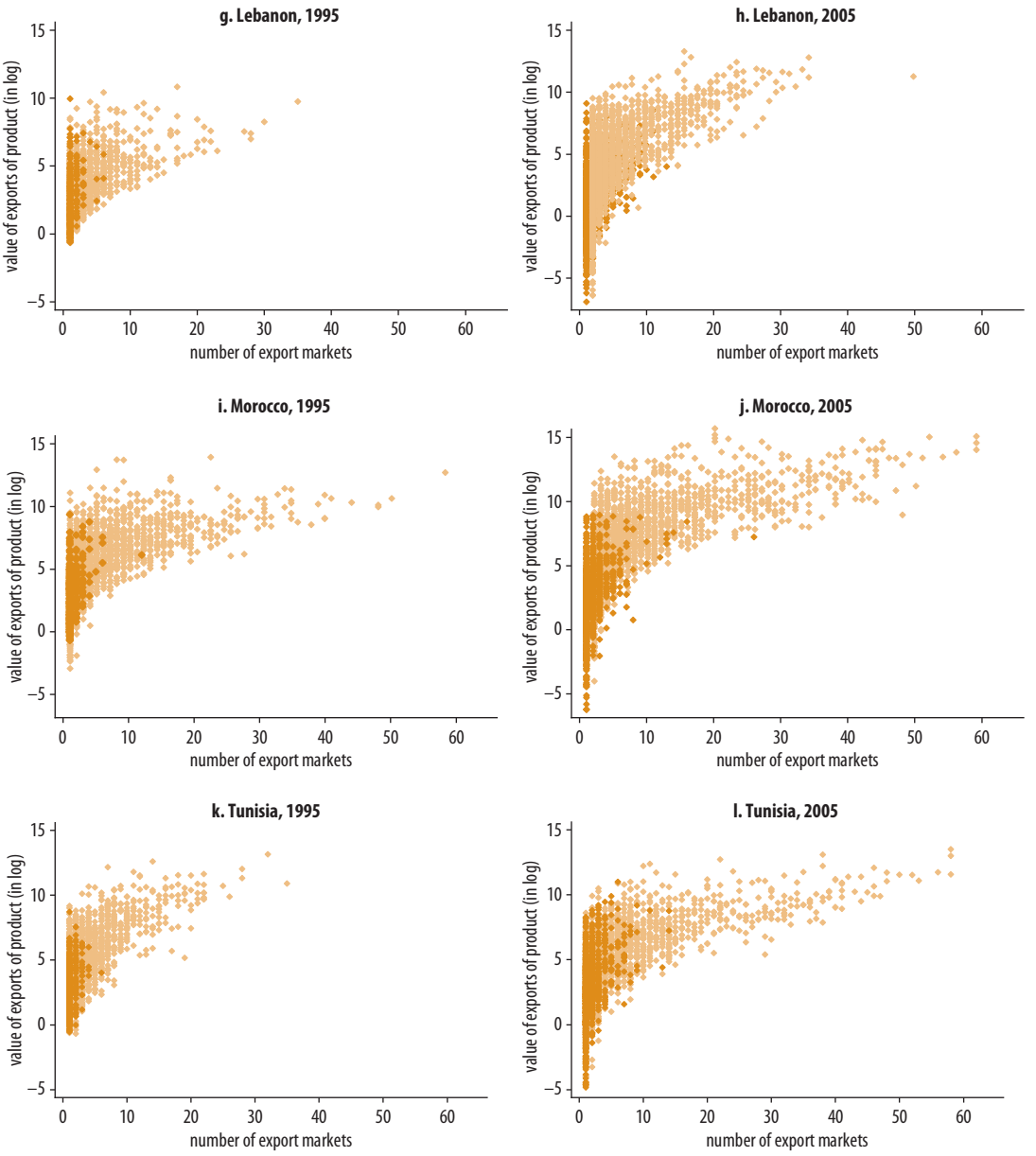
FIGURE 2.1

Export Diversification in Selected MENA Countries, 1995 and 2005



(Figure continues on the following page.)

FIGURE 2.1 (continued)



Source: Staff calculations based on data from UN Comtrade.

Labor-Abundant Countries' Participation in Global Production Sharing

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 firmwide and economywide levels) have made breaking

down production into 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. Producing offshore requires low trade tariffs and low logistics and transport costs. When offshore production is high, trade in intermediate goods (parts and components as well as semifinished 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 (Coe and Helpman 1995). MENA countries export and import a large share of intermediate goods, much like India but not like 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's imported semifinished goods include steel, nonferrous metals, and other products used as inputs in the early stages of production but include little technologically advanced machinery (table 2.5). Trade in parts and components is usually a good 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 of parts and components, which account for less than 10 percent of the region's exports and about 15 percent of imports. A large variation in component trade exists across countries, however. Only a negligible share of Egypt's and Syria's trade is in components, whereas Jordan, Morocco, and Tunisia all have a high share of exports in components.[5]

MENA Exports' Low-Technology Content

East Asian firms often acquire knowledge and technology by 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, although differences across countries exist (table B.3 in appendix B). Algeria, the Islamic Republic of Iran, and Jordan import products with higher-technology content than do most other MENA countries, but these imports 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, whereas exports from most other countries hardly exceed 2 percent, with few exceptions. By contrast, China 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 are moving

TABLE 2.5

Manufacturing Trade by Stage of Production, 2006

Stage of production	Labor-abundant MENA countries (% of total)	China (% of total)	India (% of total)	World (% of total)
Export				
Intermediate goods	65.6	44.9	67.7	57.2
Parts and components	9.6	21.2	14.1	27.1
Semifinished 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
Others	1.1	1.8	2.2	4.0
Import				
Intermediate goods	58.4	71.1	55.9	57.4
Parts and components	15.3	43.4	17.3	27.3
Semifinished 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
Others	0.7	1.9	10.8	3.8

Source: World Bank staff calculations based on data from UN Comtrade.

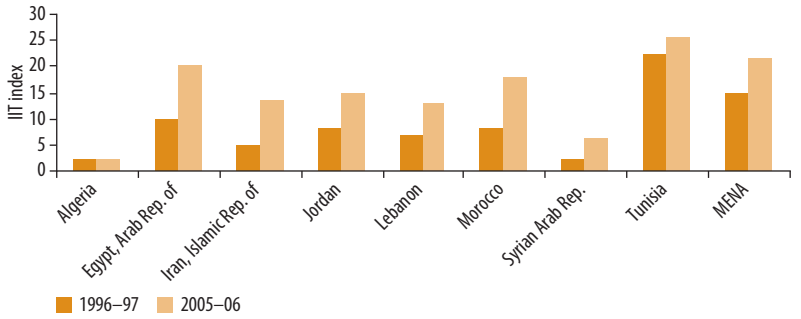
away from mass-manufactured, low-tech goods. For example, China now exports more personal computers, cellular phones, and last-generation televisions than it does basic metal tools, radios, and the like. Although much of this production is still assembly of high-tech products, China's technological capacity has also improved. In MENA countries, by contrast, imported technology is directed more toward domestic use than toward 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.

Low but Rising Intraindustry Trade

The intraindustry trade (IIT) index provides another indication of how intensively countries participate in international production chains.[6] IIT is now the fastest-rising portion of global trade, allowing countries to participate in production chains and to specialize in their comparative advantages (Balassa and Bauwens 1987). IIT has risen in many MENA countries—particularly Egypt, Morocco, and Tunisia (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 manufacturing industries.

FIGURE 2.2

MENA Intraindustry Trade Index, by Country



Source: World Bank staff calculations based on data from UN Comtrade.

What Explains These Outcomes?

Many different explanations for the poor integration of MENA in production networks have 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 the small size and limited production opportunities of MENA economies. Lack of effective regional integration has made the realization of large economies of scale—an 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 2007). Nevertheless, MENA countries are poorly integrated into European production chains as well, most likely because of high logistics and transport costs as well as still-high trade barriers.

Emerging Triangular Trade Flows

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 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, such as office and telecommunications equipment, as well as other components to China and other

BOX 2.1

Determinants of Intraindustry Trade

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

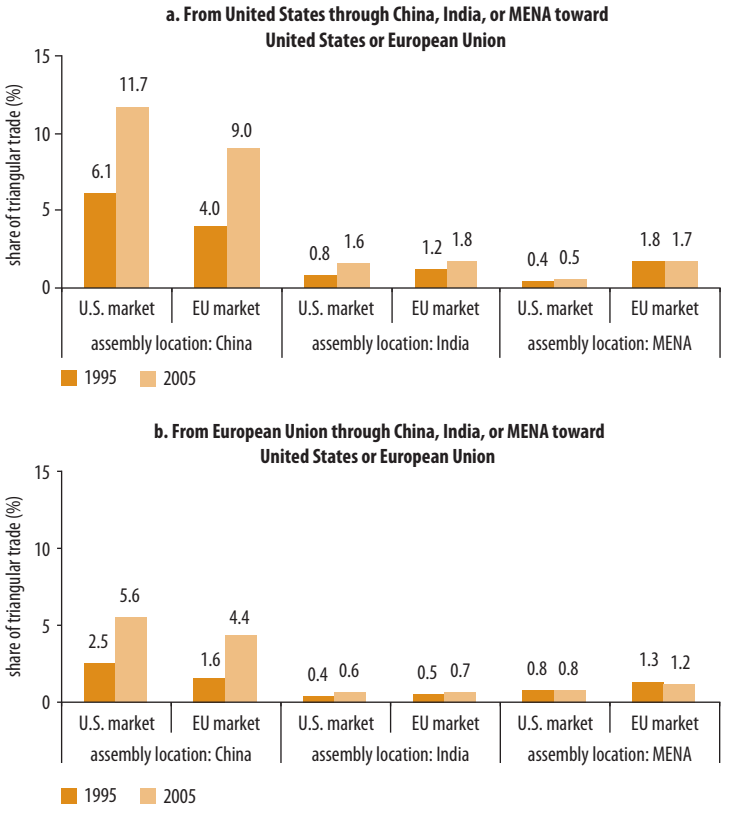
- *Market size.* Helpman and Krugman (1985) argue that the share of IIT in manufactured goods trade tends to increase as the average market size of the two countries increases because of economies of scale. By contrast, a country with a small domestic market has limited opportunities to take advantage of economies of scale in the production of differentiated intermediate goods.
- *Inequality between two countries.* The share of IIT in final goods is expected to vary negatively with the bilateral inequality in per capita gross domestic product (GDP) between two countries, whereas the sign for IIT in intermediate goods is ambiguous. Linder (1961) and other studies use per capita income differences as proxies for consumer tastes and preferences. As the per capita incomes of two countries become closer, their tastes and preferences also become similar. Hence, the share of IIT 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, an expected negative relationship exists between bilateral inequality in per capita GDP and the share of IIT in final goods. With regard to intermediate goods, there is no clear consensus on the sign of bilateral inequality in per capita GDP on IIT. Ethier (1982) predicts that as differences in factor endowments rise, IIT in intermediate goods declines. But Feenstra and Hanson (1997) predict that IIT 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 IIT in intermediate goods. If the difference is large, IIT 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 IIT tends to be greater when trading partners are geographically close. Distance increases 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 trade-off between its extra transportation costs and the cost saving that can be achieved by outsourcing some of the production stages to countries where factor prices are cheaper. Hence, there should be a higher propensity to outsourcing to neighboring countries.

Asian countries, which 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 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 subprocesses 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 (see World Bank 2007c).

How important is triangular trade?[7] To what extent do MENA countries participate in this trade? The share of U.S. triangular trade with China is high (about 12 percent for the U.S. market), having increased more than 90 percent between 1995 and 2005 (figure 2.3).

FIGURE 2.3

EU and U.S. Triangular Trade with China, India, and MENA, 1995 and 2005



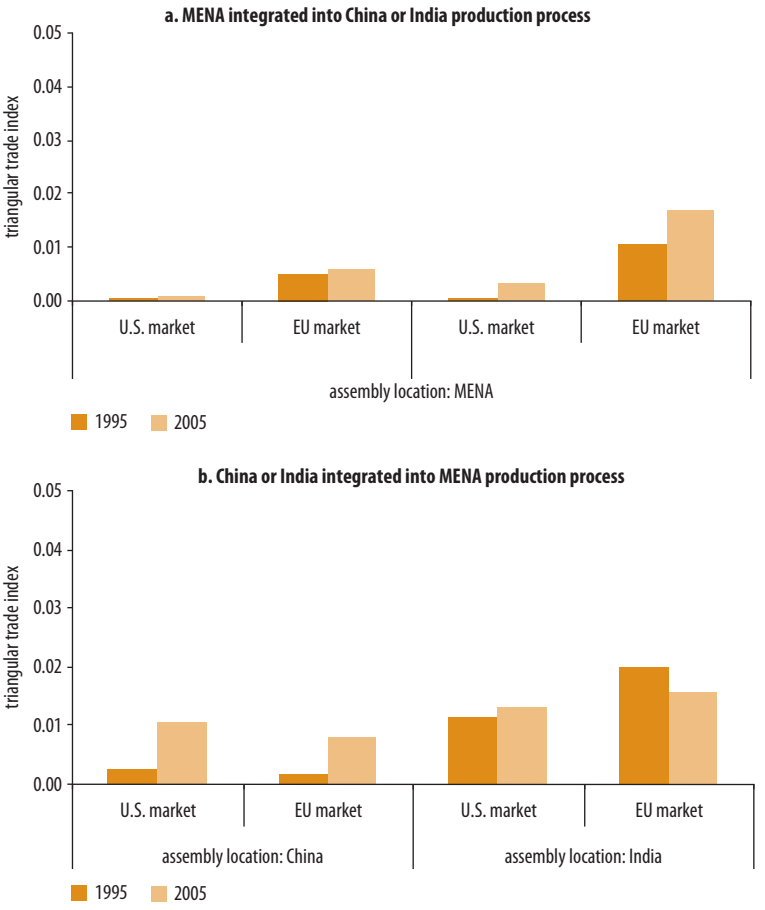
Source: World Bank staff calculations based on data from UN Comtrade.

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 is also increasing. The share of MENA's triangular trade with the European Union and the United States barely changed from 1995 to 2005.

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 reexport? The triangular trade index can help answer these questions.[8] This index is the

FIGURE 2.4

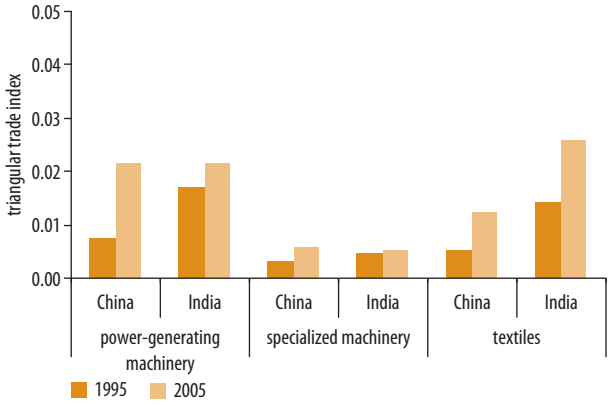
Triangular Trade Index for China, India, and MENA, 1995 and 2005



Source: World Bank staff calculations based on data from UN Comtrade.

FIGURE 2.5

MENA Triangular Trade to European Union, by Sectors, 1995 and 2005



Source: World Bank staff calculations based on data from UN Comtrade.

product of (a) the share of total intermediate exports from one country to another and (b) 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 (in 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 past 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).

Some new and positive developments have taken place. Figure 2.5 shows that triangular trade with the EU has risen significantly in some sectors, such as textiles and power-generating machinery.

Trade Policies to Increase MENA's Integration with China and India

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

Reasons for Weak Integration

According to *Middle East and North Africa Region 2008 Economic Developments and Prospects* (World Bank 2008b), the decade from 1997 to 2007 saw 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). Nevertheless, substantial diversity exists across the region, with tariffs averaging from about 5 percent in the Gulf Cooperation Council countries and Lebanon to more than 20 percent in the Islamic Republic of Iran, Morocco, and Tunisia.

Some imports to MENA countries benefit from preferential treatment and are subject to lower applied duty rates. Moreover, because 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 and 2007, import-weighted applied tariffs (which reflect preferences offered to particular trade partners) ranged from 11.5 percent in Morocco to 6.9 percent in Egypt (in early 2008) to even lower in Gulf Cooperation Council countries. However, many competitors have more liberal import regimes and less antiexport bias (for example, in Bulgaria and Turkey, tariffs are less than 2.0 percent, and in China, they are 5.3 percent).

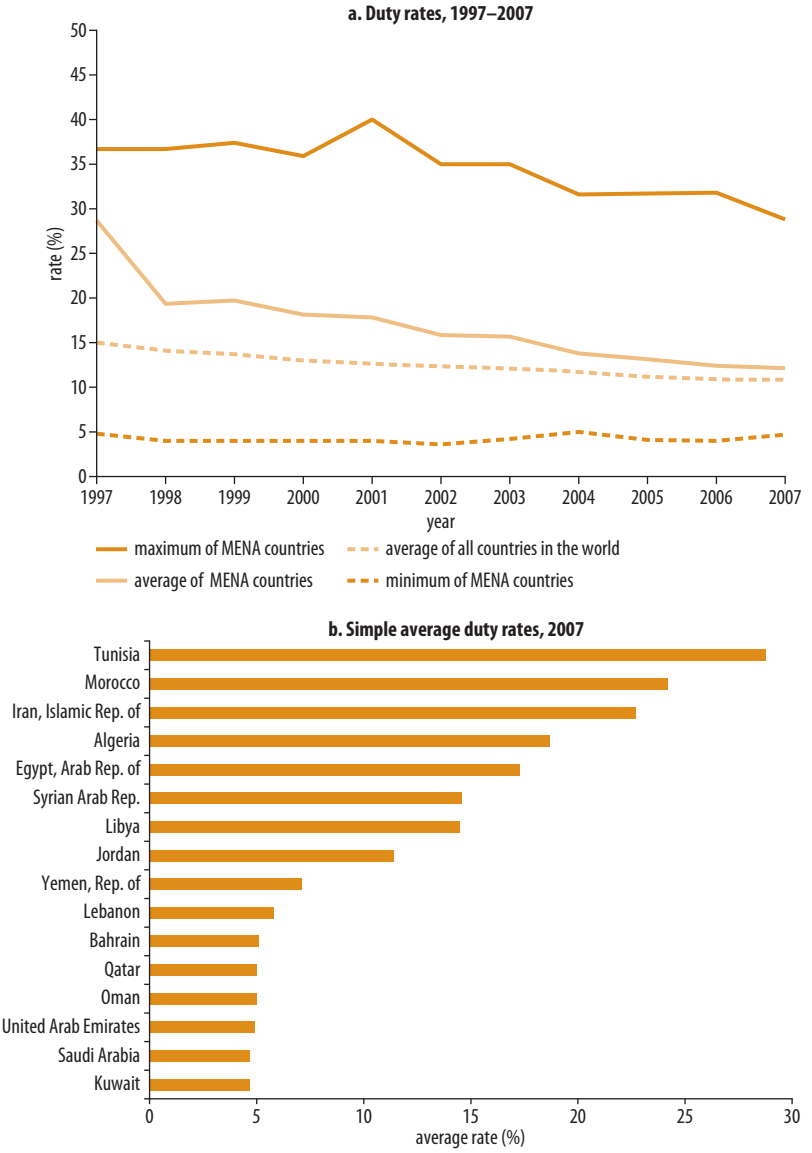
MENA Countries' Membership in Regional Groups

The large number of bilateral, subregional, intraregional, and interregional preferential trade agreements that have proliferated in the MENA region since the early 1990s indicates that most MENA economies are effectively integrating into regional groups. Examples include the free trade agreement of Bahrain, Jordan, and Morocco with the United States; the Agadir Agreement signed by Egypt, Jordan, Morocco, and Tunisia; the Pan-Arab Free Trade Agreement signed by 22 Arab states; and 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.

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 (see World Bank 2008c).

FIGURE 2.6

Most-Favored-Nation Duties across MENA



Source: World Bank staff calculations based on the data from the International Monetary Fund's Trade Restrictiveness database.

Note: Most-favored-nation duties include customs duties or surcharges.

Given that many MENA countries have signed preferential agreements with the European Union, asking whether these agreements have improved those countries' export performance is important. The issue, of course, deserves a more comprehensive analysis. Table 2.1 showed that

exports to the European Union have become progressively less important (as a share of total exports). An interesting sector to look at is clothing, which has been completely liberalized since 2006.[9] Recent export growth in clothing was not attributable 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.[10] Appendix C discusses MENA's response to increased competition in the apparel markets.

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 the 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 provision 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 the 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.

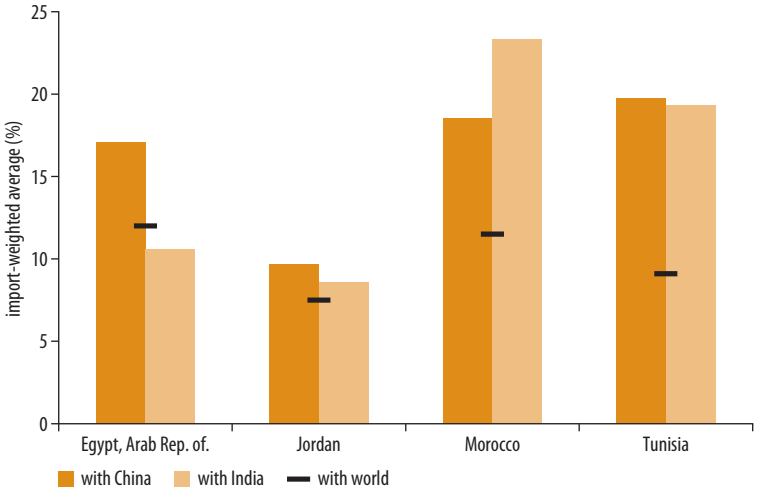
Highly Protected Markets for Chinese and Indian Exports

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),[11] 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.

A number of products originating from the Asian countries have been subject to tariff peaks—that is, very high tariffs on individual

FIGURE 2.7

Bilateral Import-Weighted Average of Applied Import Duties, 2006

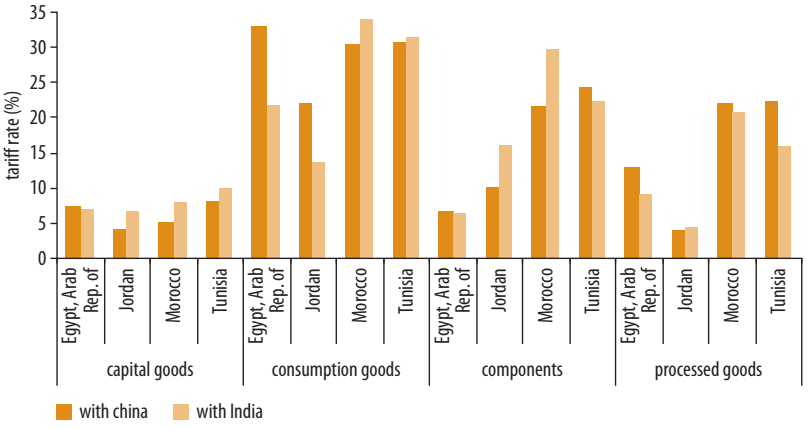


Source: World Bank staff calculations based on data from UN Comtrade.

Note: Data for Egypt are for 2005 (latest available).

FIGURE 2.8

Tariff Barriers with China and India, by Type of Good



Source: World Bank staff calculations based on data from the United Nations Conference on Trade and Development's Trade Analysis and Information System.

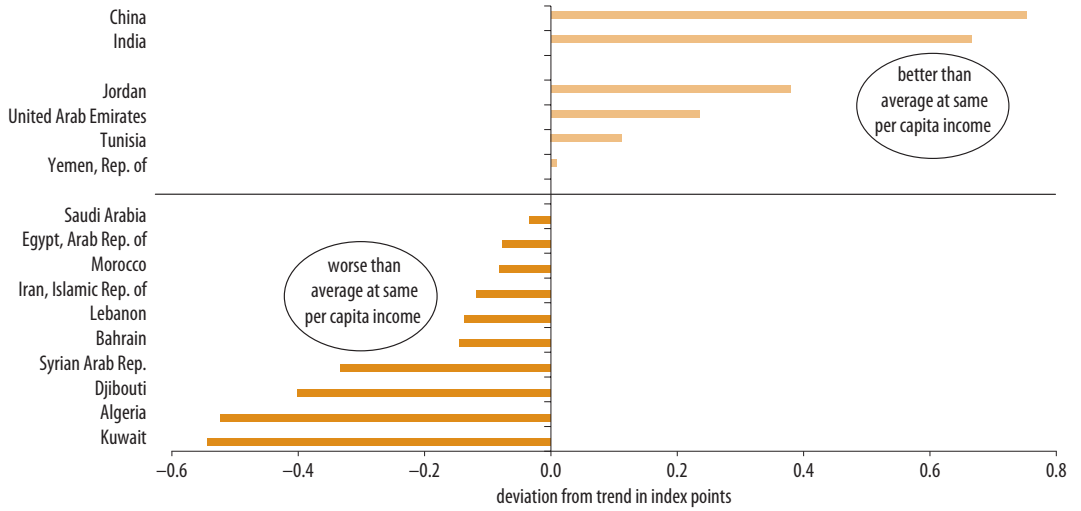
products. The tariff schedules of the Agadir countries show a considerable number of such peaks (defined as three times the tariff average). At the Harmonized System six-digit level, the national tariff schedules for 2006 showed 214 domestic tariff peaks in Tunisia, 58 in Morocco, 23

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 product categories saw imports from China or India. 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 for further trade integration.

Imports from China and India also face nontariff impediments, which are significant in many MENA countries. One major factor behind high trade transaction costs is poor trade and transport logistics. The newly developed Logistics Performance Index, 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 in transport infrastructure, interagency coordination, and staff training and, hence, show lower trade transaction costs than poorer economies do. The vast majority of MENA countries, including some of the Gulf countries (figure 2.9), score below the level of logistics performance that would be expected from their level of income. Only Jordan, the United Arab Emirates, Tunisia, and the Republic of 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

FIGURE 2.9

Logistics Performance of MENA Countries



Source: World Bank staff calculations based on data from the World Bank 2007 Logistics Performance Index.

income peers on trade logistics, which lowers their trade transactions costs, including with MENA countries.

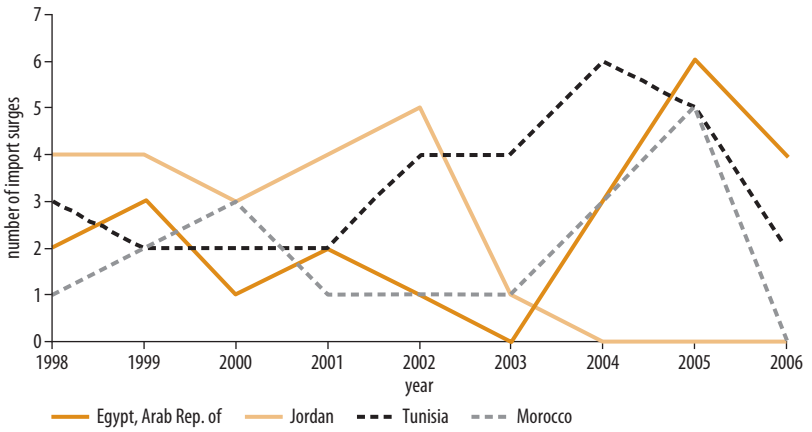
Import Surges from China and India

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 caused by 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, a large number of products imported from China (and to a lesser extent from India) have surged since 1998 (figures 2.10 and 2.11). In Egypt's trade with China, 37 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.

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 do not permit an assessment of whether import surges are caused by a more competitive underlying production offer from the Asian suppliers or whether they

FIGURE 2.10

Number of Import Surges from China

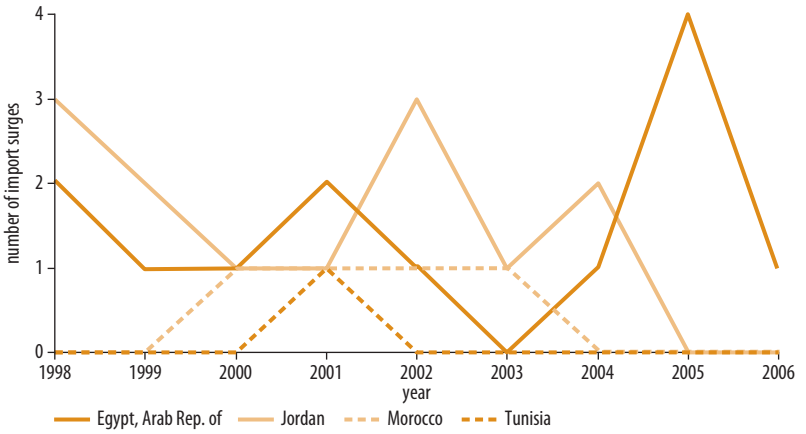


Source: World Bank staff calculations based on data from UN Comtrade.

Note: Figure shows number of products with import increases of more than 30 percent over the preceding three years. Only products that account for at least 0.3 percent of total imports are included.

FIGURE 2.11

Number of Import Surges from India

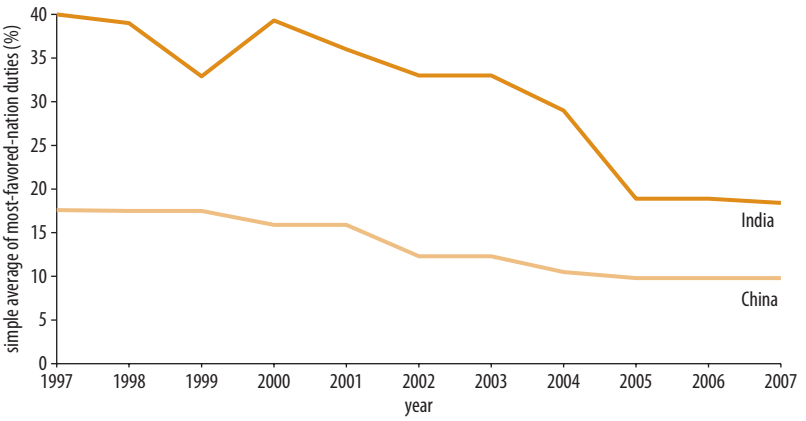


Source: World Bank staff calculations based on data from UN Comtrade.

Note: Figure shows number of products with import increases of more than 30 percent over the preceding three years. Only products that account for at least 0.3 percent of total imports are included.

FIGURE 2.12

Tariff Barriers in China and India, 1997–2007



Source: World Bank staff calculations based on data from the International Monetary Fund Trade Restrictiveness database.

Note: Most-favored-nation duties include customs duties or surcharges.

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 U.S. markets, so the Agadir countries do not appear to encounter any unusual developments.

China and India as Markets

The growing Chinese and Indian markets are potentially important export destinations for products from MENA countries. However, nonfuel shipments to these two markets face substantial trade barriers, especially in India. The two emerging giants have opened up significantly since 1997 (figure 2.12), but simple averages of most-favored-nation duties continue at about 10 percent in China and more than 18 percent in India. China's and India's tariff barriers to imports from MENA are generally below the 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 nonfuel products from the four Agadir countries to China and India face above-average duties on shipments from Egypt and Tunisia and below-average duties on imports from Jordan and Morocco. The outlier is Tunisia's exports to China, which encountered very high duties in 2005. This finding is attributable to dominating shipments of diammonium phosphate fertilizer, which were subject to a 27 percent import tariff.

Both China's 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, whereas 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,[12] suggesting that some MENA exporters were able to access the Chinese and Indians markets despite very high tariff barriers.

Given the market access opportunities for MENA countries in China and India, and the strong economic momentum of China and India, policy makers may wonder about the economic implications of preferential integration. One way to assess and quantify the prospective effects 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).[13] Using this model to simulate the effect of a hypothetical free trade agreement between (a) the Agadir countries and (b) 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 between China and Jordan (8 percent). However, the effects in particular sectors can be much stronger—even more so if the findings at individual 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 (see tables 2.6 and 2.7).

The results from the SMART model simulations should be treated with care because 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 effects 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 effects of trade reforms and can 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 Free Trade Agreement

	Change in value (%)				
Sector	China	Egypt, Arab Rep. of	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, and tobacco	0.1	1.0	1.0	3.0	1.0
Textiles, apparel, and leather	0.1	31.0	26.0	5.0	1.0
Wood products and furniture	0.0	11.0	37.0	25.0	5.0
Chemicals, rubber, and plastics	0.1	3.0	6.0	1.0	1.0
Nonmetallic 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 and 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

Source: World Bank staff calculations based on SMART data.

Note: Simulation assumes that bilateral trade is free and that all other economic and policy variables are constant.

TABLE 2.7

Change in Value of Imports as a Result of an India-Agadir Free Trade Agreement

	Change in value (%)				
Sector	India	Egypt, Arab Rep. of	Jordan	Morocco	Tunisia
Agriculture	0.0	1.0	1.0	0.0	0.0
Food, beverages, and tobacco	0.0	1.0	0.0	3.0	0.0
Textiles, apparel, and leather	0.9	4.0	1.0	1.0	1.0
Wood products and furniture	0.0	2.0	1.0	1.0	0.0
Chemicals, rubber, and plastics	2.4	1.0	1.0	1.0	0.0
Nonmetallic 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

Source: World Bank staff calculations based on SMART data.

Note: Simulation assumes that bilateral trade is free and that all other economic and policy variables are constant.

Conclusion

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

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

- *MENA's nonoil export performance over the past 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 European Union as a market for the nonoil exports of the MENA countries has declined—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 change 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 finding 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, which may limit export opportunities.* Excluding petroleum products, analysis of Chinese and Indian tariffs on MENA country goods makes clear that China and India continue to promote imports of raw inputs and maintain high protection on manufactured and processed material. Nevertheless, some examples of export success exist, 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 help explain these outcomes. Signs exist, however, of MENA's increasing integration 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 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 (see World Bank 2007d). IIT 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 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, import surges of their products have occurred.* However, no extraordinary pattern can be identified. Even so, concerned governments should analyze surges to see whether they warrant a response.

- *Governments have several measures to help firms upgrade quality and increase productivity in existing markets and to move aggressively into third markets.* Although 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 in 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 margin and the extensive margin will be facilitated by a structure of incentives that encourages resources to move to higher-productivity activities and 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.

Notes

1. The technique allows all export flows to be decomposed into the effect of the overall growth of the EU market, the change attributable 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 attributable 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 effect of increases in market shares of individual product categories.
2. For countries of similar income, the intensive margin appears to have been more dominant in driving export growth (Amurgo-Pacheco and Pierola 2008; Brenton and Newfarmer 2007). On average, for 1995 to 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 MENA 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; Pham and Martin 2007).
3. Because of the nature of such a decomposition, the contribution of each margin to export growth is influenced by the strength of the other margin. Weak growth at the intensive margin will tend to elevate the contribution of the extensive margin. Furthermore, 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.
4. 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.
5. Shares in imports of parts and component are also the highest for these countries.
6. The IIT 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 the United Nations Commodity Trade Statistics Database (UN Comtrade). The index 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).

7. Triangular trade = (intermediate exports from country X to country Y) + (final exports from country Y to country Z).
8. The triangular trade index is calculated as $TTI = \left(Int_{US,EU}^{LA,CH,IN} / Int_{US,EU}^{World}\right) \times \left(Fin_{LA,CH,IN}^{US,EU} / Fin_{LA,CH,IN}^{World}\right)$, 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.
9. The textile and clothing sectors were liberalized with the phaseout of the quotas in the Agreement on Textile and Clothing in 2005 (though in 2005 the European Union and the United States reimposed restrictions on China's exports of some strategic products for a limited period).
10. 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 from Israel, and the remainder from any of the three economies. 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.
11. The Agadir Agreement has been implemented since 2007. The four countries are also key partners in the Euro-Mediterranean Partnership and in the Greater Arab Free Trade Area.
12. India's peak tariffs were higher in absolute terms, however.
13. This model can be used to derive estimates of trade creation, trade diversion, and tariff revenue effects 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 effects of tariff reforms on narrowly defined product groups can be derived.

CHAPTER 3

Challenges and Opportunities in Global Service Trade

Service trade—finance, communications, transport, health, and education—is the fastest-growing part of world trade, and developing countries play an increasing role. Over the past decade, service exports by the Middle East and North Africa (MENA) countries more than doubled. In the same period, China's service exports tripled, and India's quadrupled. Growing opportunities are thus associated with growing competition. China and India have become important players in MENA and elsewhere, especially for construction (China) and information and communication technology (India). Competing with China and India would require the MENA countries to improve the quality and fully exploit the advantages of cultural and geographic proximity with markets such as Africa and Europe. A number of measures are also suggested for MENA countries to benefit from the service trade potential with China and India.

Trade in Services

The competitiveness of firms and countries depends on their access to low-cost and high-quality services, including telecommunications, finance, 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 nontradable and thus ignored in trade agreements and statistics, services have become important in international trade. The World Trade Organization (WTO) defines trade in services along four modes of supply (box 3.1).

Global cross-border trade in services—modes 1, 2, and 4—stood at US$2.7 trillion in 2006, up from about US$400 billion in the early 1980s, representing about 20 percent of total trade. In 2006, developing economies produced a quarter of world commercial service trade (WTO 2007). International trade in services thus remains dominated by developed economies, and most developing economies are net

BOX 3.1

Trade in Services: Four Modes of Supply

Services can be traded along four modes of supply, according to the General Agreement on Trade in Services 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, for example, to purchase tourism, education, or health services.
- *Commercial presence* (mode 3) involves foreign direct investment, as when a foreign bank, telecommunications firm, or retailing firm establishes a branch or subsidiary in the territory of another 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.

Source: General Agreement on Trade in Services Glossary available at http://www.citizen.org/documents/glossary.

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. MENA's share of the world's service trade has remained unchanged since 1990 (2.7 percent then compared with 2.8 percent in 2006). By 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).

Service trade, more than trade in goods, appears as the core of development strategy 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 US$3 trillion in leisure and tourism (and indirectly in infrastructure) by 2020. In the United Arab Emirates, tourism to Dubai now contributes more than oil to the Dubai's gross domestic product (GDP).

TABLE 3.1

Overview of Trade in Services

Region or country	1990 total trade	2006 total trade	2006				
			Transport	Travel	Communications and computer	Insurance and finance	Construction
World (US$ billion)	861	2,768	592	691	1,185	173	—
Share (%)	100	100	100	100	100	100	
European Union (US$ billion)	336	1,108	239	266	78	117	24
Share (%)	39	40	40	38	7	68	
United States (US$ billion)	146.5	418.8	68.5	106.7	14.2	46.4	5.5
Share (%)	17	15	12	15	1	27	
MENA (US$ billion)	23.2	76.1	15.7	28.2	24.0	0.9	—
Share (%)	2.7	2.8	2.6	4.1	2.0	0.5	
China (US$ billion)	5.9	92.0	21.0	33.9	3.7	0.7	2.8
Share (%)	0.7	3.3	3.5	4.9	0.3	0.4	
India (US$ billion)	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, Arab Rep. of (US$ billion)	5.97	16.13	5.49	7.59	0.55	0.19	0.43
Lebanon (US$ billion)	—	11.62	0.48	5.01	0.30	0.26	—
Morocco (US$ billion)	2.01	9.84	1.49	5.98	1.67	0.08	—
Saudi Arabia (US$ billion)	3.03	7.30	—	—	—	—	—
Kuwait (US$ billion)	1.28	6.97	2.32	0.20	3.4	0.10	0.00
Tunisia (US$ billion)	1.69	4.29	1.24	2.28	0.05	0.11	0.14
Syrian Arab Rep. (US$ billion)	0.87	2.92	0.22	2.03	0.17	0.06	0.00
Jordan (US$ billion)	1.45	2.49	0.53	1.64	0.28	0.00	0.00
Bahrain (US$ billion)	0.36	1.85	0.74	1.05	0.06	0.00	0.00
Oman (US$ billion)	0.07	0.91	0.32	0.54	0.05	0.01	0.00
Libya (US$ billion)	0.12	0.49	0.13	0.19	0.01	0.06	0.00
Yemen, Rep. of (US$ billion)	0.11	0.55	0.03	0.18	0.10	0.00	0.00

Sources: IMF, World Bank, and Organisation for Economic Co-operation and Development data.

Note: — = not available. Missing values for 2006 are filled with 2005 data.

Countries are also diversifying their service exports. Dubai promotes exports in information and communication technology (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 service providers from MENA and from China and India in third or domestic markets would be greatly helped by data on bilateral service 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 statistics. Because none of the available statistical instruments use the WTO categories for negotiations and commitments, balance of payment 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 balance of payment data on remittances for mode 4. None of these proxies is fully satisfactory, and often the aggregation makes having a precise picture for individual service sectors and subsectors impossible.[1] Thus, the analysis here uses anecdotal evidence and suggests interpretations.

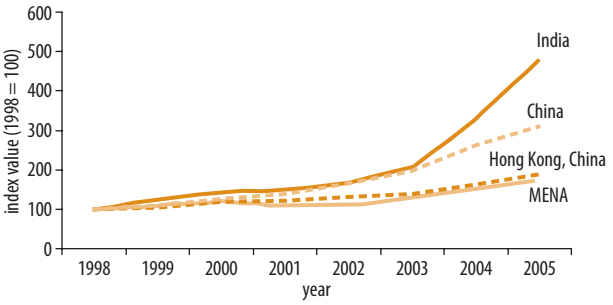
China, India, and MENA: Competing Internationally

MENA countries are at various stages of development in their service trade. Their service exports have grown more slowly than China's and India's (figure 3.1). Most MENA countries remain small players on the world scene, although they can offer quality services at lower prices than do European competitors. The Arab Republic of Egypt, the regional leader, ranks only 30th among leading world exporters of services (all commercial services included). China and India are third and fifth, and their service exports have grown much more rapidly than MENA's have, widening the gap between the contenders.

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 3.2). But resource-rich countries run a deficit for obvious reasons: a large contribution of oil to

FIGURE 3.1

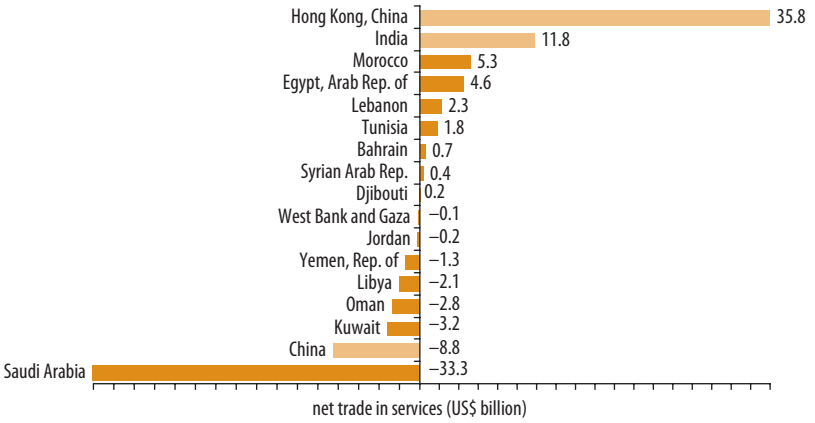
Growth of Total Service Exports in MENA, China, and India, 1998–2005



Source: International Monetary Fund (IMF) balance of payments data, 2007.

FIGURE 3.2

Net Trade in Services, 2006



Source: IMF balance of payments data, 2007.

the GDP results in greater need and resources for imports of services. Saudi Arabia runs the largest service deficit in the selection at US$33.3 billion. Mainland China also runs a deficit of about US$8.8 billion, while Hong Kong, China, is the world's largest net exporter of services, with a US$35.8 billion surplus.[2]

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 finding 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 service trade deficit. India also has a net position (8th) that is lower than its export position (5th). Evidence suggests that MENA service providers perform better than 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.

Many MENA governments struggle to find an appropriate strategy for service trade development. Is there room for MENA exporters between top-end service providers of the Organisation for Economic Co-operation and Development and low-cost Asian firms? And can MENA service providers increase their competitiveness enough to flourish in this quickly evolving world market? This section attempts to answer these questions by looking at three sectors where MENA service trade is important—construction and engineering services, medical services, and

ICT services. In these sectors, China and India appear to outperform MENA in domestic and third markets, suggesting that trade opportunities are being missed.

Construction and Engineering Services

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 to 25 percent of the world's construction cranes in operation, with Abu Dhabi, United Arab Emirates, and Jeddah, Saudi Arabia, next in line. The boom has caused shortages of materials and workers, as well as a price surge of more than 20 percent since 2003.

In addition to European and U.S. construction companies, providers from China, Indonesia, Japan, the Republic of Korea, Malaysia, and Singapore have increased their presence. A few United Arab Emirates 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. Companies from Hong Kong, China, have served as risk managers in trading with China, thus providing better assurances of quality, delivery, and payment.

MENA firms are competing with Chinese firms, not only in these regional markets, but also in third markets, such as Sub-Saharan Africa. The major Tunisian engineering firms are in more than 30 Sub-Saharan African countries, but Chinese companies have rapidly gained market share, rising in Zambia and Tanzania to 30 to 40 percent since 2000. China has moved from a net importer to a net exporter, as has India. But growth of exports from traditional MENA construction service providers, such as Tunisia, slowed or even reversed (see figure 3.3). A notable exception was the rapid growth of construction services in Egypt, which seems to have benefited from the construction boom in the Gulf.

The construction boom in the Gulf has resulted in a growing demand for building materials and workers. 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 China, Indonesia, the Republic of Korea, Malaysia, and Turkey. Increased imports and low tariffs on these materials have helped meet the needs of this booming market at the lowest possible cost. Foreign

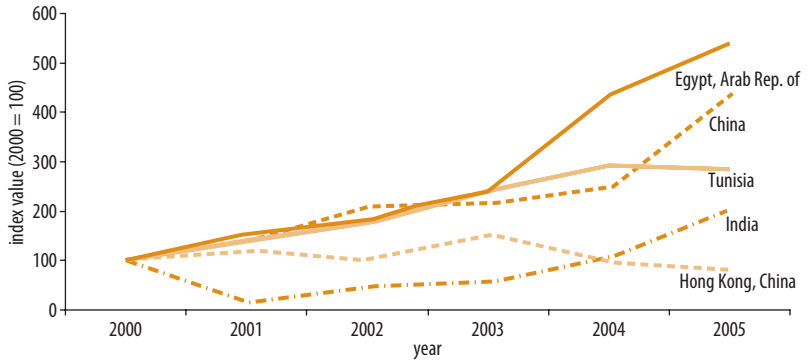
construction companies have increased the available personnel in the Gulf, and the growing demand for workers has raised salaries in construction. Average salary increases have been higher in the sector than in the rest of the GCC economy (figure 3.4).

With a view to remedying this shortage of the least qualified workers, construction companies tap into the Bangladeshi, Indian, and Pakistani and labor forces. China is also increasingly solicited. Nepal, the Philippines, and Vietnam are new sources of labor from which GCC countries recruit general construction services (HKTDC 2007).

The use of foreign labor has generated controversies, however, in the construction sector, but even more so in sectors where local labor is

FIGURE 3.3

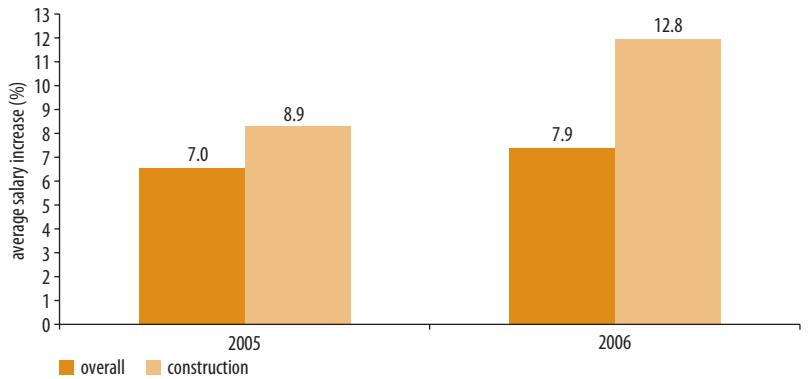
Construction Service Exports



Source: IMF balance of payments data, 2007.

FIGURE 3.4

Average Salary Increase in the GCC, 2005–06



Source: Gulftalent.com.

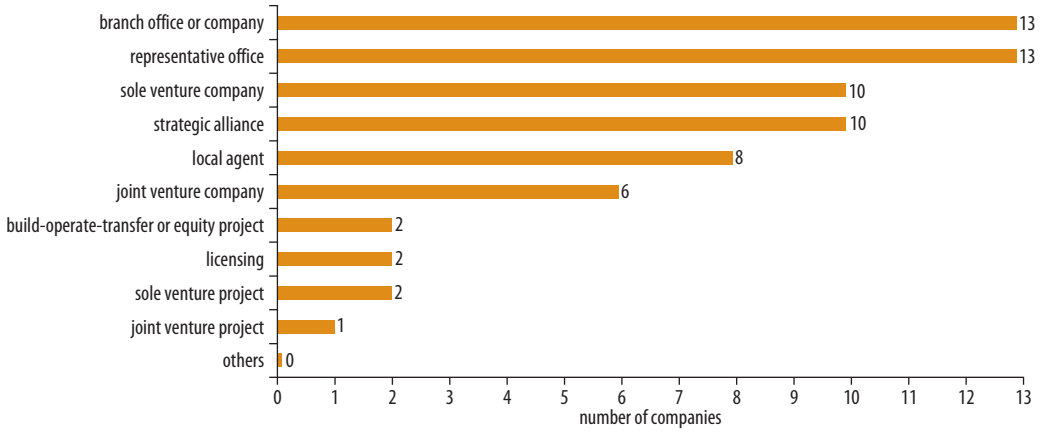
abundant and largely meets the demand. Often, foreign companies—particularly Chinese and Indian companies—are accused of using foreign laborers with disregard for local capacities and working conditions. They are also accused of transferring less technology and knowledge to the local economy (see chapter 4). Information in this area is lacking and should be considered with caution.

Although data are not available for MENA countries, recent research in Africa provides some information on the source of Chinese construction labor in the African market (see Chen and others 2007). Chinese construction firms appear to source half their employees from the domestic market and half from China. For managerial positions, however, Chinese nationals fill more than 90 percent of the jobs. It is also suggested that, like other international contractors, Chinese contractors do not train or transfer skills to local staff members 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 spillover is not excluded. Against all criticisms, some suggest that technologies used by Chinese firms are more easily transferable to local companies, given the level of sophistication of such firms compared with that of other foreign providers.

How could construction firms and workers improve their productivity? A recent report by the World Bank (2007h) that explored trade and

FIGURE 3.5

Entry Modes of Chinese Construction Companies in African Markets



Source: Chen and others 2007.

Note: Results are based on surveys of Chinese construction firms in Africa. Numbers correspond to the number of surveyed companies that opted for each different mode of entry.

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 (in price and quality) has already been through a phase of adjustment prompted by the emergence of Turkish firms in 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).
- Improving efficiency also requires further concentration of engineering and construction service firms, which employ a few hundred workers in the MENA region, compared with a few thousand in Europe.

Medical Services

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. Although 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: about 150,000 foreigners visited India for treatment in 2004, and it is estimated that health tourism could generate more than US$2.3 billion a year in exports by 2012 (Rai 2005).

Egypt, Morocco, and Tunisia compete directly with India. Indeed, MENA countries are relatively competitive on price, at least with India, but 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 certified by the International Organization for Standardization).

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 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 European 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.

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

- Better adopting international quality, safety, and hospitality standards and marketing services
- 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

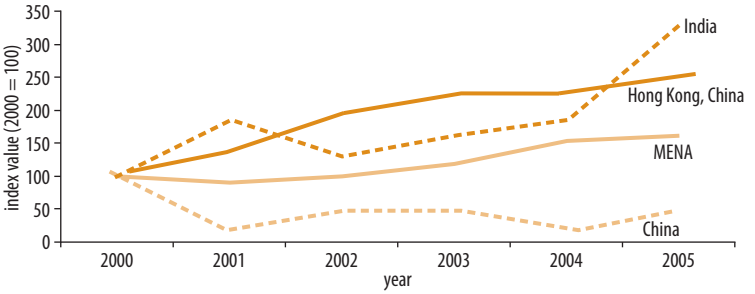
Global Outsourcing and Communication Services

The global market for service outsourcing is booming—more than US$100 billion in trade and growing at 30 percent a year. In all kinds of information technology and technology-enabled services, India leads the race (figure 3.6). It exported more than US$20 billion in computer services in 2005, 600 times more than its closest MENA competitor, Egypt, and 1,200 times more than its second closest, Tunisia.[3] The same pattern prevails in broader communication services, and the gap between the market leaders and their competitors is widening. Despite the fierce competition in communications, Kuwait has become the world's second-largest provider of telecommunications services (almost tripling its exports in one year to US$3.4 billion in 2006), connecting an estimated 27 million mobile subscribers in the Middle East and in Sub-Saharan Africa.

MENA countries have invested in 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 in areas

FIGURE 3.6

Communication Service Exports, 2000–05



Source: IMF balance of payments data, 2007.

such as computer software. Since the Saudi General Investment Authority was established in April 2002, close to 200 licenses have been awarded to Indian companies for joint ventures or 100 percent Indian-owned companies, for more than US$1 billion, mainly in management and consulting services, construction, ICT, and software development.

A few MENA countries have potential in the field: Egypt (13th), Jordan (14th), the United Arab Emirates (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 Belgian, French, 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 Asia and Europe, with opportunities to serve both markets and provide a platform for Asian service providers.

India will confront shortages of skilled workers in the next decade (estimated at 500,000 workers), particularly in the business process outsourcing (BPO) industry. In the Indian offshoring business, wages and other costs are rising by 10 to 15 percent a year. In addition, India lacks large

numbers of workers fluent in French, German, Japanese, and Spanish. Thus, Indian information technology and 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 proximity to the African, European, and MENA markets. Alternatively, Indian companies could establish a regional base in MENA (foreign direct investment and any kind of venture) to ease access to neighboring countries and to Europe.

China and India as Growing Markets for MENA Services

China is the world's largest importer of services, importing more than US$100 billion in services, and India the eighth largest, importing US$63 billion in services. Put differently, China represents a larger share of world service imports than all MENA countries put together. In addition, growth rates of service 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

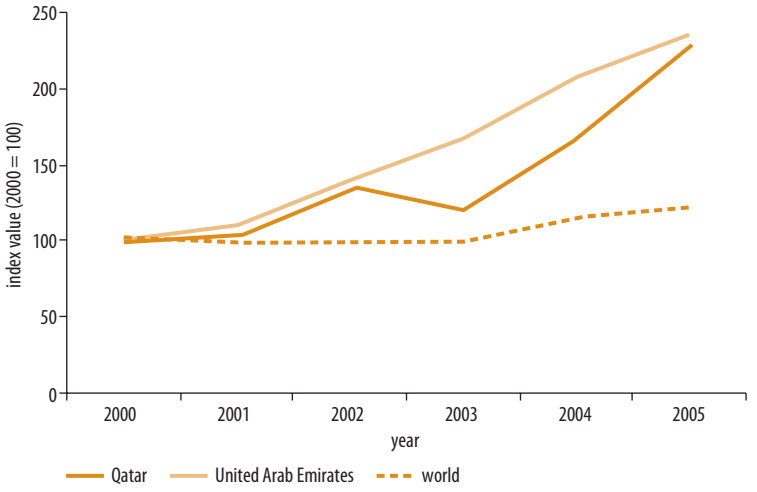
MENA has long been on the major trade roads. But in recent history, trade across the Atlantic has prevailed, leaving the region outside the main theater. With China, a large amount of trade has been diverted from the Atlantic to the Pacific and Middle Eastern routes, thus restoring MENA's strategic position. 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.

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

Emirates Airlines and Qatar Airways are among the principal investors in the air sector. Qatar Airways flies one of the youngest fleets in the

FIGURE 3.7

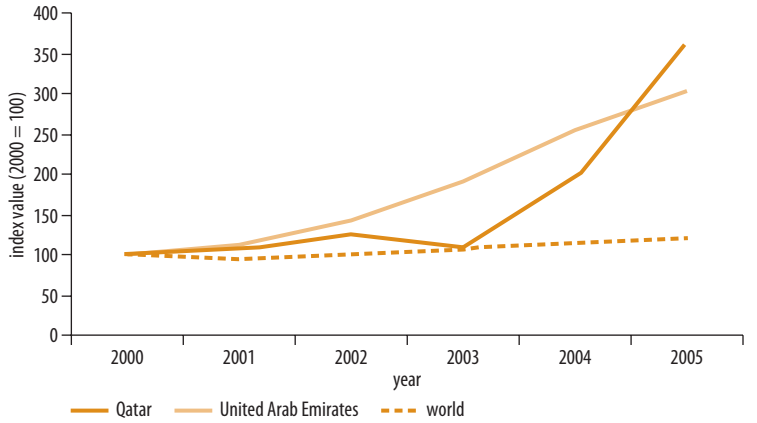
Air Transport of Passengers, 2000–05



Source: World Bank 2007i.

FIGURE 3.8

Air Freight, 2000–05



Source: World Bank 2007i.

skies, with 60 aircraft and orders (or options) for about 90 new Airbuses and 90 new Boeings, a fleet forecast to more than double by 2015. Dubai International 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, China; Taiwan, China; and Singapore, with 1.5 million metric tons of freight and mail loaded and unloaded in 2006.[4] Among the top cargo airports, Dubai is also the third fastest-growing airport in cargo traffic after Shanghai and Beijing, China (Airports Council International 2007).

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 MENA has growing trade opportunities (15.7 percent growth, compared with 12.1 percent for the Asia-U.S. route and 9.5 percent for the U.S.-Europe route). Moreover, with the Panama route saturated, some shipping companies are exploring alternatives. Shanghai and Shenzhen, China, are now the world's third- and fourth-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). Clearly, geography alone does not guarantee success in transport and logistics.

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

Capturing Chinese and Indian Outbound Tourism

Some MENA countries are important tourist destinations. According to the latest *World Tourism Barometer* (UNWTO 2008), 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

TABLE 3.2

MENA Top Container Port Traffic, 2006

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

Source: Containerization International database.

TABLE 3.3

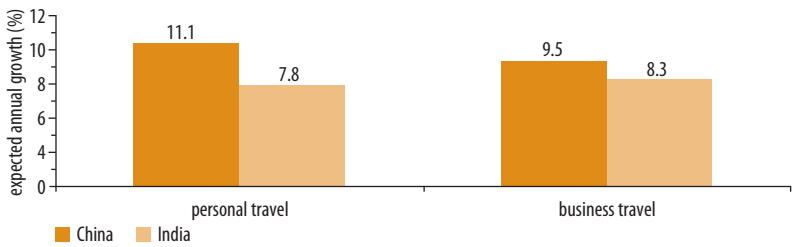
Logistics Performance Index, MENA Region, 2007

International rank	Country	Logistics performance	Customs	Infrastructure	International shipments	Logistics competence	Tracking and 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. of	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. of	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. of	2.29	2.18	2.08	2.20	2.22	2.30	2.67	2.78
135	Syrian Arab Rep.	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.

FIGURE 3.9

Projections of Personal and Business Travel, 2008–17



Source: UNWTO 2007.

visitor numbers (6 percent) in 2007 even though many countries face security issues. Tourism in Egypt and Saudi Arabia grew by 20 percent each, with more than 8 million tourist arrivals. Visitors to the Syrian Arab Republic grew by 31 percent. Abu Dhabi's tourist numbers grew by 16 percent. In North Africa, Morocco leads with a 14 percent increase in international tourist arrivals in 2007 (UNWTO 2008).

Chinese outbound tourism is still in its infancy, but it has been growing at more than 20 percent a year over the past decade and has much room to develop (figure 3.9). In 2005, China sent more than 30 million tourists abroad, spending more than US$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 destination for Chinese tourists (90 percent of all outbound departures, including 70 percent for Macao, China, and Hong Kong, China, alone). The share of long-haul tourism remains rather small, despite a relaxation of traditional controls over outbound travel: easier passport attribution, authorized tourism operators, more flexible currency controls, and an increased number of authorized destinations.

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

Indian outbound tourism grew at more than 15 percent from 2002—to more than 1.5 million to MENA countries in 2005, about a fifth of India's outbound tourists. This growth could be related to the large population of Indian migrants in the GCC. Bahrain, Kuwait, and the United Arab Emirates were the main destinations, taking about 90 percent of travelers (figure 3.10). These three destinations represent a 6 to 7 percent share of Indian outbound tourism each, compared with 10 to 12 percent for Malaysia and Singapore (the first and second major destinations). Egypt is behind, with only 50,000 Indian tourists, less than 1 percent of outbound tourism.

TABLE 3.4

Chinese Tourist Arrivals in MENA Countries, 1995–2005

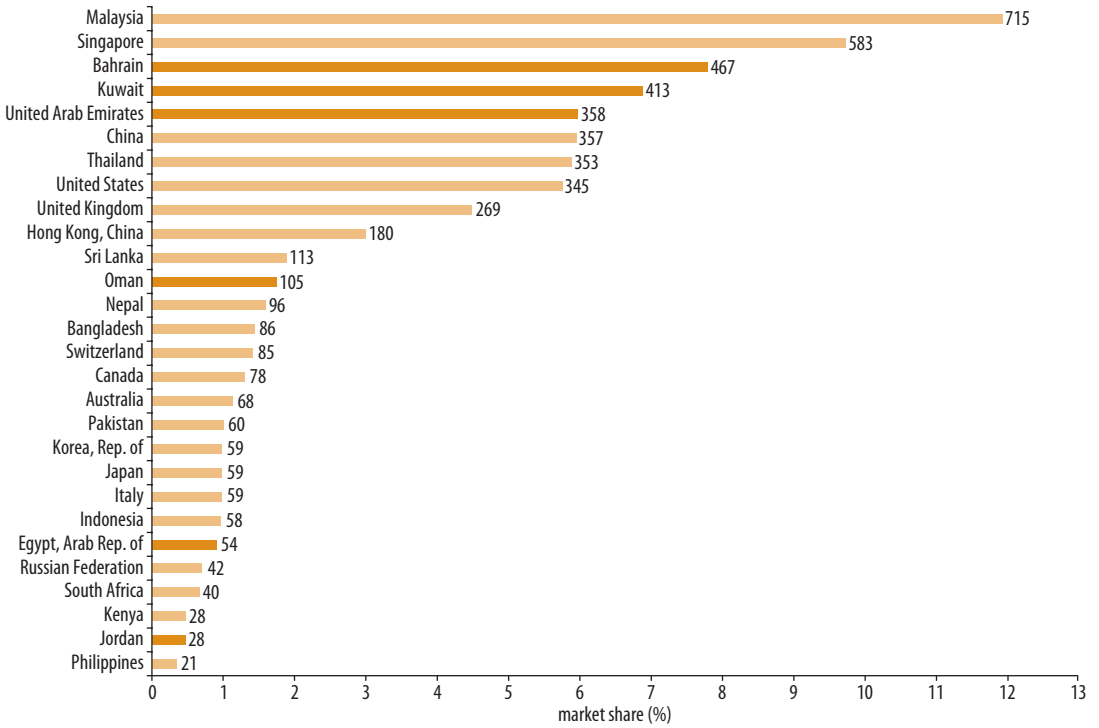
Country	Number of tourists			Market share (%)
	1995	2000	2005	2005
Bahrain	—	2,383	8,699	0.14
Egypt, Arab Rep. of	5,930	13,779	35,327	0.41
Iran, Islamic Rep. of	2,395	—	—	—
Jordan	1,620	5,499	7,202	0.12
Kuwait	2,642	3,435	—	—
Lebanon	1,019	1,638	1,642	0.14
Libya	827	141	—	—
Morocco	1,548	1,972	3,513	0.06
Tunisia	—	—	1,874	0.03

Source: UNWTO various years.

Note: — = not available.

FIGURE 3.10

Major Destinations for Indian Outbound Tourists, 2005



Sources: Times Research Group 2004; UNWTO various years.

The Way Forward

How can MENA countries expand their services trade? The analysis in this chapter suggests the importance of maintaining or improving quality. Reputation is a key to success in service 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 service trade where geographic and cultural proximity matters—targeting neighboring markets such as the European Union. This strategy 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 more distant markets.

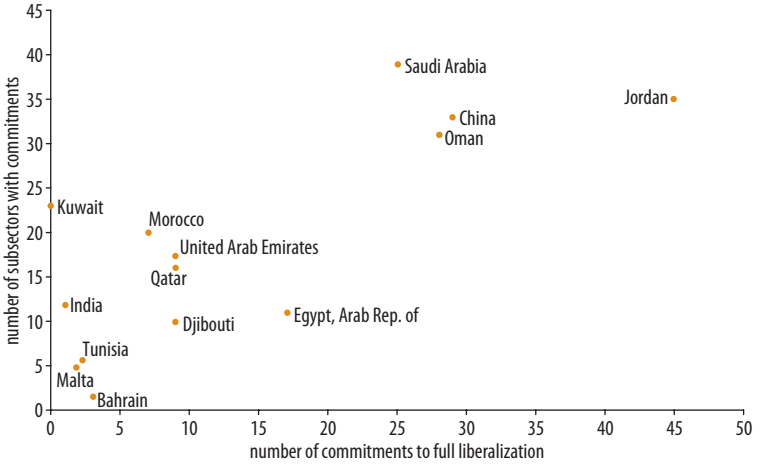
Reinforcing Competitiveness: Open to Foreign Competition and Reform the Sectors

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 General Agreement on Trade in Services (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 the service sectors, and half of MENA countries having commitments in less than 1 of 10 sectors (figures 3.11 and 3.12). For MENA as a whole, mode 2 is the most open (for obvious reasons, a country does not want to restrict access of consumers to its market). For service trade, Jordan, Saudi Arabia,

FIGURE 3.11

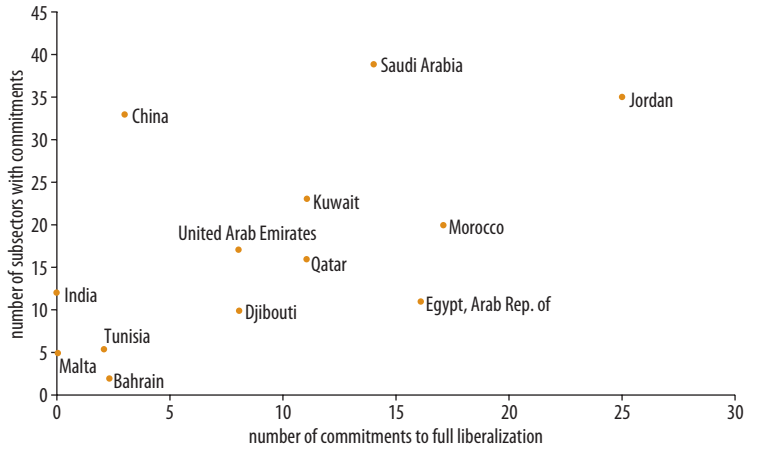
Commitments under GATS Mode 1



Source: World Bank staff calculations, based on WTO schedules of commitments.

FIGURE 3.12

Commitments under GATS Mode 3



Source: World Bank staff calculations, based on WTO schedules of commitments.

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, the "theoretical" level of exposure appears fairly limited.

A clear link does not seem to exist, however, between the degree of openness and the participation of individual countries in bilateral or regional trade agreements with major trading nations, such as the United States. This conclusion 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 United States; Jordan already has a free-trade agreement in force, but Oman and the United Arab Emirates are still in negotiations. Opening alone is not enough (see box 3.2). Other reforms

BOX 3.2

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 telecommunications or banking) and a diminishing trust in reform. Often, such adverse results can be explained by pitfalls in policy making. 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
- Lack of a meaningful access policy

Nevertheless, governments and donors were not necessarily naive, nor did they fail to appreciate the latter two dimensions. Instead, they did what they could do quickly and fairly easily: privatize and allow entry into some sectors. Sometimes, ironically, 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: 16–19.

are needed to improve the competiveness of services. Sequencing of reforms also matters. Assessing the potential exposure of the different service sectors to international competition and adopting nondiscriminatory accompanying measures would help maximize the benefits of opening and minimize the costs.

Reinforcing Trade Links and Preserving Preferential Access with Traditional Target Markets

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

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

All three levels could be pursued in traditional markets, such as the European Union. Although 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 requests by China and India.

Regional cooperation could be a major component of global service trade 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 currency exchange controls and obstacles to the movement of physical persons). The success of Kuwait in telecommunications perfectly illustrates the potential of an export strategy driven by regional demand. In medical tourism, the agreement between Libya and Tunisia on 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.

Given the constraints affecting MENA's competitiveness in services, a strong case can be made for further regional trade integration in services.[5] 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 because of the high segmentation

of the MENA market. Harmonizing certain standards and regulatory requirements could help regional firms reach a critical size for exports.

MENA countries have signed trade agreements among themselves and with third countries, sometimes as a group (such as the 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 service sectors). And because of restrictions in the movement of people and capital, MENA service providers find operating across countries difficult. With regional trade agreements proliferating in the world and with service 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

Access to service markets in India and China remains difficult, as suggested by their low level of commitments in the GATS—particularly 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 has done so 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.

From an economic perspective, the closer the economies, the more the gains to be expected from free trade agreements. This likelihood 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. It 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 out of India or China to MENA. Hence, the balance of costs and benefits for MENA is unclear. Some countries already have bilateral trade agreements with either China or India to bind GATS-plus commitments along with broader access for merchandise trade. But India has not yet made significant bilateral concessions on trade in services (among more than 30 agreements signed by India, only the free trade agreement with Singapore includes attached schedules of concessions for services).

China is also moving into free trade agreements, mostly in the Asia-Pacific region. Discussions are under way with Australia, Chile, the GCC, New Zealand, Pakistan, and the Southern African Customs Union. China is also trying to open discussions with Brazil, Iceland, India, Japan, and

the Republic of Korea. Besides special agreements with Hong Kong, China, and Macao, China, the first harvest included a partial trade agreement with Thailand and an agreement with the Association of Southeast Asian Nations (ASEAN), which completed negotiations on trade in services with China in January 2007. The ASEAN agreement entered into force in July 2007. As with any bilateral free trade agreement, this agreement may affect MENA service exporters' positions in both the Chinese and the ASEAN markets, given that the trade agreement's partners have preferential access to each other's markets.

So there is a strong incentive to negotiate subsequent agreements on services with China and India to preserve market shares, to reinforce the security and predictability of service trade transactions, and to gain broader access to markets: the "domino effect" of free trade agreements. The question remains, however, whether the interest of MENA countries lies in allowing broader access to their markets to Chinese and Indian service providers. The answer would depend on the type of commitments on both sides—and on careful analysis of the costs and benefits of bilateral opening.

Conclusion

China and India are major players in trade in services, ranking third and fifth, respectively, as world exporters. Their service exports have grown at a faster pace than those in MENA. Overall, MENA countries remain small players on the world service trade scene, although a few—Egypt, Lebanon, Morocco, and Tunisia—rank among the 30 largest net exporters of services in the world. Evidence suggests that MENA service providers perform better than their Chinese or Indian competitors in market segments where quality matters most. The region is also emerging as a strong tourist destination, with Egypt and Saudi Arabia 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 the service sectors.

Looking to the future, MENA countries should give priority to maintaining or improving the quality of services. Reputation is a key to success in service trade, and competitiveness could be increased through improved efficiency at equal or higher-quality output. MENA countries may need to focus on segments of service trade where geographic and cultural proximity matters—targeting neighboring markets such as the European Union. This strategy should not prevent MENA countries from diversifying

their exports and reducing their 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 maximize the benefits of opening and minimize the costs.

Further expanding the tourism industry is possible, but issues of security (such as in Egypt, Iraq, Lebanon, and the Republic of Yemen) 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 more proximity to the European, African, and MENA markets. Or Indian companies could establish a regional base in MENA (foreign direct investment 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.

MENA should anticipate an increasing demand for services from China and India where those countries will face skill shortages or booming domestic demand. MENA countries have a strong incentive to negotiate agreements with China and India to preserve market shares, to reinforce the security and predictability of service 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 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.

Notes

1. The *Manual on Statistics of International Trade in Services* (UN and others 2002) has been developed and published jointly by the United Nations, European Commission, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations Conference on Trade and Development, and WTO; it is 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 Web sites of the six organizations.
2. The service sector contributes more than 90 percent of the GDP of Hong Kong, China. This success is largely explained by the open investment

environment, intellectual property protection, and incentive programs of Honk Kong, China. Increasingly, companies in Hong Kong, China, 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, China (graphics include both Hong Kong and mainland China).

3. 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 business process outsourcing-related exports. Whereas India created a specific category for such activities in its balance of payments, most other countries might include business process outsourcing in business services.
4. Memphis, in the United States, ranks first with 3.6 million metric tons.
5. 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.

CHAPTER 4

MENA's Investment Links with China and India

Countries of the Middle East and North Africa (MENA) are attracting more world foreign direct investment (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 while the global financial crisis has reduced their current account surpluses, Gulf countries continue to invest billions abroad, seeking investments in alternative markets and currencies, and looking more toward the East. Two-way investment between the MENA countries and China and India shows the increasing importance of MENA oil-producing countries as international investors and suppliers of capital. 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

Before collapsing during the 2008 financial crisis, capital flows to developing countries[1] reached a record US$647 billion in 2006, with equity accounting for almost three-quarters. With inflows of nearly US$80 billion, China alone received more than 20 percent of the total FDI inflows and ranked among the world's top three recipients. India, at only 5 percent, attracted a much smaller share of FDI,[2] 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 the *World Investment Prospects Survey 2007–2009* of the United Nations Conference on Trade and Development (UNCTAD 2007b). Portfolio investment surged in both China and India, reflecting greater confidence from international

investors.[3] Four of the 10 largest initial public offerings in 2006 were made by Chinese companies, increasing China's share of portfolio equity flows to developing countries from 30 percent to 35 percent.

MENA experienced a sharp increase in FDI flows to a record US$51.6 billion in 2006, accounting for 4.7 percent of world FDI, up from an average of only 1.8 percent in 2000 to 2004. This astonishing growth in FDI is a reflection of 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 Gulf Cooperation Council (GCC) countries, private equity rose to US$10 billion in 2006, almost twice the amount of the previous year, and was estimated at about US$27 billion for 2007, the bulk in the resource-rich countries and in energy.

FDI flows to the region are concentrated in a few countries: Bahrain, the Arab Republic of Egypt, Morocco, Saudi Arabia, Tunisia, and the United Arab Emirates. 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 17.0 percent of gross fixed investment in 2006 (more than four times the average share for 2000–03) and 3.8 percent of gross domestic product (GDP) (table 4.1). The trend continued in 2007 but is expected to have slowed down in 2008.

TABLE 4.1

Foreign Direct Investment in MENA

	1996–99	2000–03	2004	2005	2006[a]
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 countries	4.5	6.8	5.2	9.7	12.8
Share 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 countries	1.1	1.5	1.2	2.1	3.4

Sources: World Bank 2007f, 2008b.

a. Estimates revised in May 2008.

MENA, China, and India as International Investors

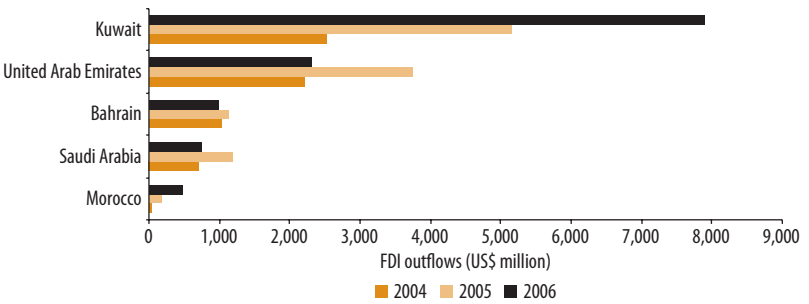
Looking East

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 investment from the region.[4] Kuwait and the United Arab Emirates are the leading international investors (figure 4.1). Flows from other countries, such as Morocco, are also becoming important. If FDI flows are sizable, the stock of foreign assets[5] owned by MENA oil countries is even larger.[6] Considering that Gulf countries have invested an estimated 80 percent of their foreign assets offshore in 2006, that they are becoming an important source of capital for the rest of the world is not surprising. Capital outflows from GCC countries were, in fact, estimated at US$540 billion for 2002 to 2006. The same estimates suggest that the influence of capital flows from GCC countries, as from other oil exporters, will continue to be substantial if current projections of oil prices (an average US$ 50 a barrel in 2008 to 2012) are maintained.[7]

The International Institute of Finance estimates that the United States is still the main destination of GCC capital, followed by the European Union (IIF 2007; figure 4.2). Asia is becoming a more important destination, however; in the past five years, GCC countries have invested 11 percent of total capital outflows in Asia. This investment has been driven in part by an extended period of low interest rates and low yields on U.S. and European assets. That situation has made emerging market assets more attractive for investors globally and has led Gulf investors to invest more heavily in domestic equities—as stock

FIGURE 4.1

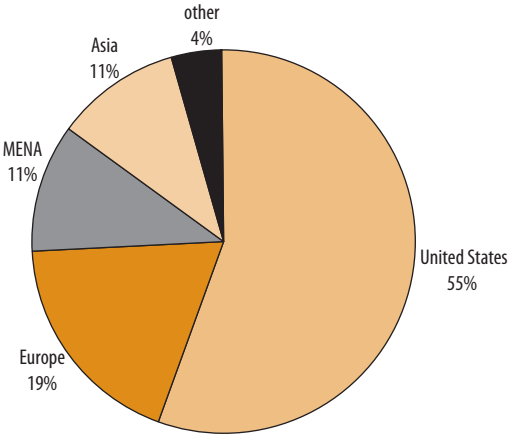
FDI Outflows in MENA: Top Five Countries, 2004–06



Source: UNCTAD 2007c.

FIGURE 4.2

GCC Estimated Geographic Distribution of Capital Outflows, 2002–06



Sources: IIF 2007; McKinsey Global Institute 2007.

markets in the region have risen strongly—and to look more closely at Asia as an investment destination.

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.

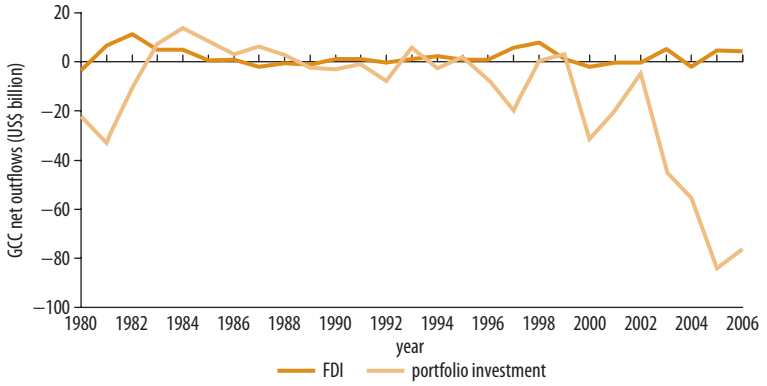
Net portfolio outflows are estimated to be about US$80 billion in 2006, from almost zero during the early 1990s (Economist Intelligence Unit and Columbia Program on International Investment 2007). Private and institutional Gulf investors are making "strategic" investments in Asia by holding a diversified portfolio of assets that emphasizes equity and equity-like investments. Non-oil-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, infrastructure, tourism, and real estate.

Diversification by GCC as a Key Driver in Capital Markets

In the early 2000s, GCC countries started to diversify away from U.S. assets, partly because of political events in and after 2001 and partly because of financial considerations. Although flows to the United States have returned massively, the GCC is investing proportionally less in U.S. Treasury bills, the safest type of investment available, and moving toward

FIGURE 4.3

GCC Net Flows of Portfolio and Net Direct Investment, 1980–2006



Sources: Economist Intelligence Unit 2007; World Bank staff calculations.

Note: Negative numbers indicate a net outflow.

TABLE 4.2

Capital Outflows from MENA Oil-Exporting Countries, 2000–06

Type of investment	Amount (US$ million)						
	2000	2001	2002	2003	2004	2005	2006
U.S. long-term securities[a]	14,713	4,991	−2,926	−2,752	20,228	6,684	24,225
U.S. Treasury bills	3,482	865	−3,880	−6,645	9,041	2,063	4,548
U.S. government bonds	477	1,151	1,959	1,472	4,353	1,810	7,037
U.S. corporate bonds	1,565	1,186	304	1,809	349	1,022	4,666
Outward FDI							
United States[b]	n.a.	n.a.	1,138	393	713	1,508	10,271
Europe	152	n.a.	833	133	−7,780	−213	n.a.
China	41	n.a.	50	76	107	109	n.a.
India	5	n.a.	20	24	57	50	184

Sources: U.S. Bureau of Economic Analysis; Ministry of Commerce of China; Ministry of Industry and Trade of India.

Note: n.a. = not available. a. Net purchases (+) of U.S. long-term securities by MENA oil-exporting countries. b. From Bahrain, Islamic Republic of Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates. Data include Israel.

other types of government (or corporate) securities (table 4.2). This change is a sign of a different strategy in managing oil surpluses than that used in past oil booms and a signal of GCC investors' search for higher (expected) returns. Furthermore, GCC investors are seeking alternative markets and currencies. A report from the Economist Intelligence Unit

(2007) analyzing the rise of Gulf investment in Asia argues that this aggressive and diversified strategy of Gulf investors coincided with the rise of China and India and their increasing integration into the global economy.

Chinese and Indian Investment Diversification Abroad

In 2006-07 China and India held huge foreign reserves, representing 70 to 80 percent of their total foreign assets holdings. Despite the recent financial crisis, China is by far the largest holder of foreign reserve assets in Asia,[8] and India's central bank is among the 10 largest foreign reserve holders in the world.[9] In 2006 China started to invest some excess reserves in a more diversified portfolio of international financial assets and to slowly liberalize its capital account regulations. In recent years, Chinese, Indian, and Asian central banks are diversifying their investments from mostly U.S. Treasury bills into other U.S. government securities—searching for higher yields. China's government started to shifting a part of its reserve assets to sovereign wealth funds. An example of China's new investment approach is the creation in 2007 of China Investment Corporation, with US$200 billion of assets under management and a target of investing in more than 50 large enterprises around the world.[10] Like other sovereign wealth funds, China Investment Corporation can take more risk in the search for higher returns.

Despite its success in attracting FDI since the early 1990s, China has only recently emerged as an international investor,[11] 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 direct investment enterprises in most countries around the world.[12]

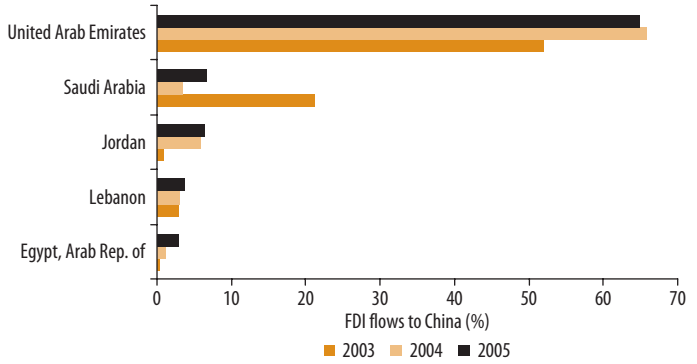
India has been investing abroad since the 1970s. Until the 1990s, outward investments by Indian companies were driven by India's political will to improve South-South cooperation and by the need to promote Indian exports in the form of Indian-made machinery, raw materials, know-how, and consulting. In 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 an Investor in China and India

In 2005, China received 0.2 percent of its FDI inflows from MENA countries; India received about 1.5 percent (Department of Industrial Policy and Promotion 2006). But these flows have been growing since

FIGURE 4.4

Top Five MENA Investors in China, 2003–05



Source: Ministry of Commerce of China.

1999, particularly those from GCC countries, a sign of the MENA oil-exporting countries' growing interest in Asia. The top five MENA investors in China are the United Arab Emirates, Saudi Arabia, Jordan, Lebanon, and Egypt (figure 4.4). The United Arab Emirates accounts for more than 60 percent of the registered nonfinancial flows to China. Jordan, Egypt, Lebanon, and Morocco have steadily increased their financial investment since 2000, even though the amounts are very small.

What Determines MENA's Investment in China?

To identify the determinants of MENA countries' FDI outflows to China, this study estimated a country fixed effect model.[13] 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 countries' FDI outflows. Trade openness and market potential are positive and significant variables. China's restrictions on capital have little (or no) importance in deterring investment. This result is consistent with the hypothesis that FDI to China is motivated not by the need for capital injection,[14] but by the desire to participate in international networks.

MENA investors are driven to China mostly by the attractiveness of a large market and the low cost of production, as well as by the availability of labor and infrastructure. Bilateral investment agreements have the expected positive sign and are significant: they signal the attractiveness of the local market. MENA's non-oil-producing countries appear to invest proportionally more than oil-exporting countries.[15] Market capitalization

TABLE 4.3

FDI Outflows to China: Estimation Results

	Coefficients				
Variables	(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)				
Chinese total exports + total imports to GDP		16.24** (2.67)			12.35* (2.10)
Restrictions index of China			2.13** (3.06)		
Chinese GDP per capita at constant prices				8.40* (1.55)	
R^2	0.52	0.52	0.55	0.51	0.51
Adjusted R^2	0.38	0.37	0.41	0.36	0.35

Source: World Bank staff calculations.

Note: * = significant at 10 percent; ** = significant at 5 percent; *** = significant at 1 percent. Figures in parentheses are *t*-statistics. Regressions include a constant term.

has a positive sign, indicating that countries with large domestic financial markets have a larger need to diversify asset holdings overseas.

Sectoral disaggregations of data on FDI are not available, so linking the findings to specific sectors or to the type of global production network is very difficult. Survey data on greenfield FDI from MENA countries to China and India during 2003 to 2007 indicate that participating in industrial clusters and domestic market growth potential were the main motives (table 4.4). The reliance on industry clusters leads to the hypothesis that FDI between MENA and China complements trade patterns and that the investment is mostly in export-oriented sectors.

Where Are MENA Countries Investing?

GCC countries are investing heavily in petrochemicals in China. Although China is the second-largest producer of basic petrochemicals outside the United States, Western Europe, and Japan, its rapid economic growth has outpaced its ability to produce enough basic petrochemicals.

TABLE 4.4

Why MENA Countries Invest in China and India

Reason given	Percentage of respondents
Industry cluster or 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: World Bank staff calculations based on OCO Monitor data.

This gap presents 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, an attractive feature for foreign investors.[16] Added to this incentive 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 China National Petroleum Corporation (CNPC). The two companies are authorized to operate with foreign companies seeking partnerships with Chinese enterprises, thereby decreasing bureaucratic hurdles. China's desire to upgrade its chemical industry to world standards requires large capital investments, and this need matches the profile of GCC investors. MENA's interests in India's downstream industry have also multiplied in recent years.[17]

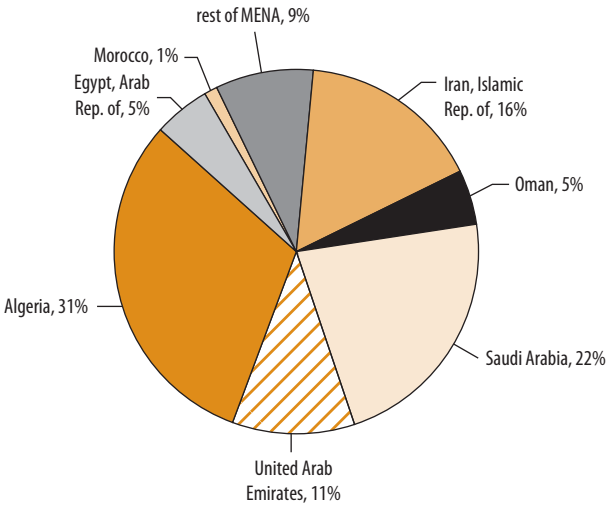
GCC investors have also targeted strategic activities, particularly in services, banks, information and communication technology, and real estate.[18] In China, the Kuwait Investment Authority applied in 2007 for the initial public offering of China's biggest mainland bank, the Industrial and Commercial 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 China Exim Bank (the Export-Import Bank of 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 to forge a longer-term commitment between the two countries.

China and India as Investors in MENA

MENA attracts 2 percent of Chinese outward FDI, mostly to the oil-rich countries (figure 4.5).[19] The region has attracted about 5 percent of

FIGURE 4.5

Cumulative FDI Flows from China to MENA Countries, 2003–06



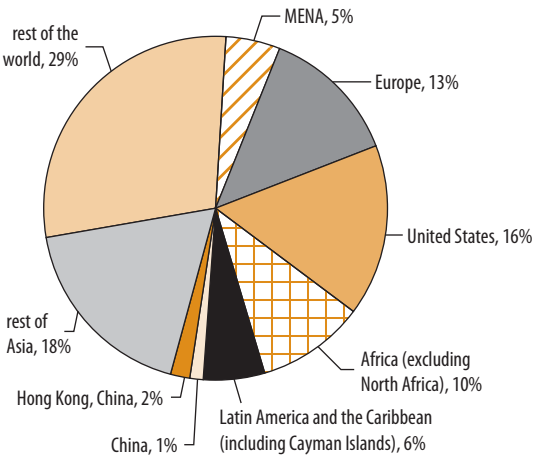
Source: National Bureau of Statistics of China 2007.

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

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 CNPC 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 China National Offshore Oil Corporation (CNOOC)—into vertically integrated firms. Before the reorganization, CNPC had been focusing on exploration, while Sinopec had concentrated on refining and distribution. The purpose of the reorganization was to make the structure of China's main oil companies vertically integrated and more competitive. Since then, these companies' search for oil has widened and now includes investments in more than 25 countries around the

FIGURE 4.6

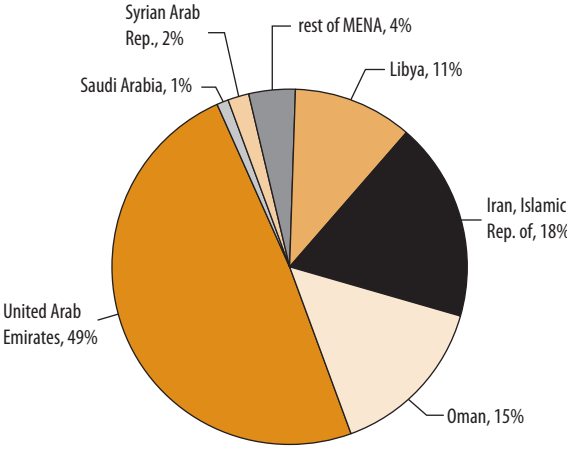
Cumulative FDI Flows from India by World Regions, 2000–06



Source: Investment Division, Department of Economic Affairs, Ministry of Finance of 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 of India.

world. By 2004, the three Chinese oil companies had concluded 61 projects; 41 of these projects were made by CNPC, which has by far been the largest investor.

India's government is pursuing a strategy of bilateral engagements with energy-producing countries to benefit from each other's strengths in

areas of technology transfers, research and development, and safety and training, as well as multilateral engagements such as the Asian Roundtables and International Energy Forum. Recently, India signed a memorandum of understanding with China for joint bidding on 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).

Though increasing, FDI from China and India remains limited because most countries in MENA restrict foreign ownership. National oil companies dominate the petroleum sector in oil-exporting countries, 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 the Islamic Republic of Iran's National Iran Oil Company ranking first and third. The openness of various MENA countries to FDI has differed, with equity investment the least popular mode (table 4.5).

Given the limited possibility of buying equity in the MENA energy sector, Asian companies have focused on the downstream industry and

TABLE 4.5

Restrictions on Energy Investment in MENA

Country	Restriction
Algeria	The 2005 hydrocarbons law allows foreign operators to act independently of Sonatrach, the state-owned company for exploiting hydrocarbons. However, Sonatrach has majority participation options on each newly discovered project.
Iran, Islamic Rep. of	The constitution of the Islamic Republic of Iran prohibits production-sharing agreements or outright concessions. Only buy-back contracts are permitted.
Kuwait	For the oil discovery, oil and gas production, and upstream petroleum sectors, investment is allowed only through buy-back contract arrangements that do not involve production sharing or concessions.
Qatar	Restrictions apply to commercial agencies and agencies trading in real estate, public transportation, steel, cement, and fuel distribution. According to Law 13/2000, foreign firms are allowed 100 percent ownership in the agriculture, industry, health, education, and tourism sectors, as well as in projects involved in the development and exploitation of natural resources or energy or mining, pending approval from the government.
Saudi Arabia	Restrictions apply to exploration, drilling, and production of oil; production of military equipment and uniforms; production of explosives for civil purposes; certain printing and publishing activities; certain telecommunications services; land and air transportation; real estate investment; services involving fishing; distribution services, including wholesale and retail trade and commercial agencies.
United Arab Emirates	Foreign investors may not own more than 49 percent of a business.

Sources: IMF 2007a; U.S. Department of Commerce Country Commercial Guides.

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 the GCC countries' 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 the MENA countries in the energy sector has increased significantly in recent years.[20]

Chinese and Indian Investments Other Than Energy

FDI from China and India in nonenergy sectors is rising, particularly in Algeria, Egypt, and Morocco. However, most of the investment is directed toward the nontradable sectors and very little toward export-oriented manufacturing. These sectoral trends in FDI have been considered a further example of the region's being subject to the Dutch disease effect, in which investment flows to nontradable sectors are associated with low and declining competitiveness of the manufacturing sectors (see World Bank 2008b). For India, the major areas of operations include software services, engineering services, tourism, readymade garments, chemical products, agriculture, and allied activities.[21] China has targeted services (construction, tourism, and telecommunications).[22] Algeria's largest construction sites are dominated by Chinese firms. In Tunisia, Chinese firms are involved in the fertilizer industry; in Morocco, in the fishing industry; and in Algeria and Egypt, in telecommunications. In the Islamic Republic of Iran, more than 100 Chinese companies are engaged in infrastructure (building telephone networks, roads, subways, dams, and port facilities) and the auto industry (the Chinese automaker Chery opened its first car factory abroad in the Islamic Republic of Iran). Box 4.1 describes recent investment activities of China and India in Algeria, Egypt, and Morocco.

Analyzing Greenfield Investments

Data on greenfield investments from China and India between 2003 and 2007 reveal that the main activities of Chinese affiliates in MENA are in the manufacturing sector (table 4.6).[23] Chinese exports to MENA countries are mostly in manufactured products, machinery, and transport products, and investment decisions are likely to complement the trade structure. By contrast, Indian FDI is in offshoring activities, such as

BOX 4.1

Chinese and Indian FDI in Morocco, Algeria, and the Arab Republic of Egypt

Morocco

Morocco is one of the countries that has actively promoted FDI from China and India. It signed agreements of "investment encouragement and reciprocal protection" with China and India in 1995 and 1999, respectively. Morocco concluded double taxation treaties with China in 2002 and with India in 1998. Agreements were signed by the General Confederation of Moroccan Enterprises with the Indian Confederation of Industries in 2000 and with the China Council for the Promotion of International Trade in January 2001.

Investment projects from China and India during 2000 to 2007 ranged between US$2.5 million and US$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). In recent years, however, India has also started to invest in the information technology sector and in transport. In 2006, Tata Consultancy Services made the biggest investment ever made in Morocco in the offshoring 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. Tata Consultancy committed to create 500 new jobs over a three-year period and to ensure the professional training of workers.

Interviews with firms and operators point to the following investment motivations in various sectors:

- *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 (Office Chérifien des Phosphates), in partnership with the Indian company Zuari, acquired the majority stake in an Indian company to facilitate its expansion in the Indian market.
- *Information technology and offshoring.* Investment is motivated by an excellent incentive framework for FDI for offshoring (tax incentive, installation of campus centers dedicated to this activity, financial support, and a professional training program) and by availability of professional qualifications and geographic proximity with Europe.
- *Maritime fishing.* Morocco has large fishing resources and good partnerships with foreign investors.
- *Iron and steel industry.* Morocco's high-performing local firms and excellent market potential make this industry attractive.

(Box continues on the next pages.)

BOX 4.1 (continued)

- *Transport materials.* The country's good geographic and strategic position motivate investment in transport materials.

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 industrial land. The minimum threshold for consideration is DA 500 million (US$5 million). The National Council of Investment has the authority to negotiate the nature and level of the incentives with foreign investors. For example, in the early 2000s, Algeria granted substantial incentives (over a period of 10 years) to the Indian multinational firm Ispat (a steel business) to establish operations in two locations (Annaba and Tébessa). Ispat committed to investing at least US$140 million in Annaba and US$30 million in Tébessa over a period of 10 years. The incentives received included application of customs duties at only a 5 percent rate, exemption from payment of value added tax, exemption from corporate income tax and tax on professional activity in proportion to the export turnover, and consolidation to the 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, indicate the following projects from China and India during 2000 to 2007:

- *China.* Industry (12 projects for US$228 million), public works (7 projects for US$26 million), and services (2 projects for US$133 million)
- *India.* Industry (4 projects for US$254 million) and public works (1 project for US$127 million)

Interviews of 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.

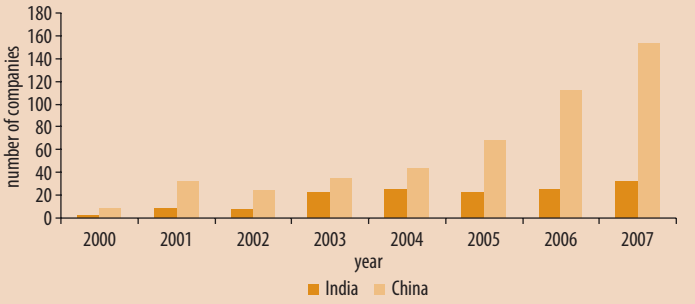
(Box continues on the next page.)

BOX 4.1 (continued)

Arab Republic of Egypt

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

Number of Chinese and Indian Companies Investing in the Arab Republic of Egypt, 2000–07



Source: General Authority for Free Zones and Investment.

Egypt is now one of the main destinations for Chinese greenfield FDI. In 2006, China and Egypt secured contracts for joint ventures worth US$2.7 billion.[a] 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 efforts to establish technological service centers targeting Egypt's building materials and textile industries.

Sources: For Morocco and Algeria, authors' compilation. For the Arab Republic of Egypt, Oxford Business Group 2008.

a. Also, in June 2007, Tianjin Industry Design and Research Institute secured a cement production line contract worth US$370 million (De Saint-Laurent and Henry 2007).

TABLE 4.6

Main Activities of Foreign Subsidiaries in MENA

Main activities	India (%)	China (%)
Business services and technical support	24	4
Manufacturing	23	46
Retail	11	0
Sales, marketing, and support	17	14
Extraction	3	21
Research and development	4	4
Logistics	1	7
Construction	4	0
Others	13	4

Source: World Bank staff calculations based on OCO Monitor data.

business 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 or software and information technology, which has been the main Indian industry investing successfully abroad); such investment is mostly motivated by exploitation of firm-specific advantages through an offshore-onshore model of service delivery.

Main Drivers of Chinese and Indian Investment in MENA

The main motive for investment appears to be access to domestic markets, explaining why most FDI goes to resource-rich countries with higher GDP, a proxy for a bigger domestic market (table 4.7). A second motive is proximity to markets and customers. This motive has two interpretations. First, Chinese and Indian firms aspire to serve customers in the region, particularly 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 a platform to reach those markets thanks to their geographic and cultural proximity. The European Union and African markets are both accessible from MENA. Cost minimization is not a major motivation for Chinese and Indian multinational firms in MENA, consistent with China and India already being low-cost production bases.

Spillover Effects of Chinese and Indian Investment in the Region

Little evidence exists of job creation or technology and knowledge transfers to local affiliates so far. Chinese and Indian FDI to MENA countries

TABLE 4.7

Motives for Chinese and Indian FDI

Motive	Percentage of responses
Domestic market growth potential	27
Proximity to markets or customers	25
Finance incentives, taxes, or funding	8
Infrastructure and logistics	8
Lower costs	6
Attractiveness and quality of life	6
Information and communication technology infrastructure	4
Investment promotion agency 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.

appear to have created fewer than 45,000 jobs 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 countries, this finding shows the absence of potential backward links or technology diffusion through research in the region (research and development accounts for only 4 percent of the total activities), probably because of the lack of local skills and capabilities. Indeed, the availability of skills explains only 2 percent of the investment. The migration rates within the region, and the GCC countries in particular, also indicate lack of local skills. 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 because of the lack of up-to-date data and the differences in business models between China and India.[24] The picture might be different in more recent years, because anecdotal evidence shows a rising share of Chinese workers in the GCC labor market (particularly in construction). Labor service cooperation between China and the GCC countries is also on the rise (table 4.8).[25]

Main Constraints to Positive Spillover Effects in the Region

Empirical evidence shows that FDI can have positive effects on productivity and growth in host countries. The beneficial spillover effects are attributable to several interrelated factors, including improvements in productivity, technology transfers, and promotion of exports. However, the effect of FDI is larger when financial markets are well developed,

TABLE 4.8

Labor Service Cooperation with China, 2003 and 2005

Country	Increase over previous year (%)	
	2003	2005
Bahrain	43	40
Kuwait	55	141
Oman	147	28
Saudi Arabia	18	4

Source: World Bank staff calculations based on data from the Ministry of Commerce of China.

few local barriers to entry exist, and human capital is ample (Alfaro and others 2006). Other studies of FDI show that spillover effects on the productivity of the rest of the economy, crucial for FDI 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 FDI 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.[26]

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 the countries in MENA present an investment risk index lower than that of China and India. See appendix D.) However, discriminatory screening and approval procedures for FDI still apply to most of the countries, and formal and nonformal barriers are still in place.

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 the links that are currently missing between foreign affiliates and domestic firms. The institutional and regulatory regime for FDI needs improvement to create an investment environment conducive to private sector growth.

Key Investment in Skills

Improving the quality of skills available and the absorption capacity of the domestic economy is key to ensuring technology transfer and knowledge spillover. Table 4.9 shows the Global Services Location Index, which indicates the attractiveness of a number of MENA countries, China, and India for offshoring 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 for 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 those of China and India. In fact, in a few countries, they are actually higher than China's and India's. But MENA countries fare well below the Asian countries in the "people and skills availability" indicator. This category represents a constraint to potential positive spillovers from foreign investment.

Investment in human capital is critical to channeling 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. By contrast, most MENA countries—whether oil producers or nonoil producers—still lack a labor force with a proper mix of skills. MENA countries need to further engage with the global economy through knowledge. They need to invest more in providing quality higher education, in establishing skills institutions to promote technical knowledge, and in promoting links between firms (domestic and foreign) and knowledge institutions by creating active networks to successfully channel knowledge transfer.

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, Arab Rep. of	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

Source: A.T. Kearney 2007.

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.

Conclusion

During 2005–2007 the MENA region has enjoyed 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 increasingly seeking to invest in alternate markets and currencies, looking more toward the east. The region is also attracting an increasing share of world FDI, partly because of a rise in intraregional foreign investment from resource-rich countries. MENA countries now attract capital from other developing countries, including China and India. However, most of the investment is concentrated in a few countries and sectors.

Two-way investment flows between countries in MENA and China or 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 they do not do so currently 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.

Although FDI in industry and services 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.

The benefits of FDI do not come automatically. Multinational corporations aim to increase their profitability in an international context, and host governments seek 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 the MENA region or added to production capacity. Nor do they contribute much to job creation or to the transfer and diffusion of technology. This is partly because of their investment strategies and the business models for implementing

them—but also because of constraints in the region that might prevent FDI from generating positive spillovers. These constraints include the lack of high-quality skills; the need for a supplier network that permits specialization and competitive costs; and the lack of suitable physical, scientific, and institutional infrastructure.

Notes

1. 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, Eastern Europe and Central Asia, MENA, Sub-Saharan Africa, East Asia and the Pacific, and South Asia. Capital flows represent the sum of private and official flows. Among private flows (debt plus equity), the analysis here looks at equity flows—FDI and portfolio equity. Net capital flows are the sum of inflows minus outflows.
2. The United Nations Conference on Trade and Development has benchmarked India as an underperformer for FDI attraction in its *Inward FDI Index 2005–07*. See http://www.unctad.org/Templates/WebFlyer.asp?intItemID=2471&lang=1.
3. In 2006, China received about US$43 million of net portfolio flows, up from US$6.9 billion in 2000. India received US$9.5 billion in 2006, up from US$2.3 billion.
4. Their share in 2006 is more than 90 percent of the total, up from 50 percent in 2000.
5. On its Web site (http://www.oecd.org/), the Organisation for Economic Co-operation and Development defines *foreign assets* (or *international investment positions*) as "mainly financial claims over nonresident institutional units."
6. 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 International Monetary Fund's International Financial Statistics. A study by the Institute of International Finance (IIF 2007)—based on International Monetary Fund balance of payment data and several other sources—conservatively estimates the accumulated foreign assets of the GCC states at the end of 2006 at US$1.6 trillion, or 225 percent of GDP, slightly more than China (US$1.1 trillion) and the Russian Federation (US$355 billion) combined. Corresponding estimates from the McKinsey Global Institute (2007) are around US$1.6 trillion to US$2.0 trillion. In addition, the rest of the resource-rich countries (excluding Iraq) hold about US$330 billion in foreign assets.
7. The McKinsey Global Institute (2007) published the results of its research on global energy demand. For the base case scenario of oil at US$50 a barrel in 2006 to 2012, the estimated total capital outflows from oil-exporting countries would reach US$387 billion a year through 2012. The high case scenario of US$70 a barrel suggests capital outflows of US$628 billion a year through 2012. But even in the low case scenario of only US$30 a barrel, the oil-exporting countries will have as much as US$147 billion to invest each year to 2012. In all these alternative scenarios, the resulting estimated GCC

capital is considered to be an extraordinary infusion of capital into global financial markets at a rate (for the base case) of more than US$1 billion a day.

8. China's central bank alone had US$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).
9. For a discussion on the costs of reserve accumulations, see Lane and Schmukler (2007).
10. China Investment Corporation officially began operating in September 2007.
11. Starting from nearly zero in the early 1980s, Chinese outward FDI exceeded US$6 billion in 2006.
12. The accumulated outward FDI stock volume stood at US$91 billion, with nonfinance FDI accounting for 83 percent of it. See National Bureau of Statistics of China (2007).
13. The adopted equation is $\log(Fdi)_{it} = \beta_1 X_{it} + \beta_2 Z_t + \alpha_i + \varepsilon_{it}$, where index *i* indicates the country of origin (all MENA countries except Israel and Malta) and *t* the year in the interval 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 that 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, a dummy variable was included, equal to 1 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 a correlation exists between bilateral FDI and bilateral trade. But when this variable is included, 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 also have 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, such as 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 do not vary over the time interval considered (for example, culture, religion, physical proximity, and common legal origin).
14. China has a high savings rate of almost 40 percent of GDP.
15. The coefficient for GDP per capita is instead positive when the same regression is run 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 finding supports the idea that the GCC countries are also investing more strategically in the United States when the investment is direct (FDI).
16. The exception is ethylene complexes, of which foreign investors can own no more than 50 percent.

17. Several examples of MENA's recent investment in petrochemicals in China and India and in the downstream oil industry can be cited. In July 2005, a new US$3.6 billion, 160,000 barrel-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. Also in 2007, Aramco was negotiating the construction of secondary refinery in Qingdao. The Qingdao plant is expected to handle high-sulfur ("sour") crude oil, given the dearth of such capacity worldwide. Moreover, China has signed several deals for concessions to explore for and produce natural gas with Kuwait Petroleum Corporation. Finally, Gulf Finance House of Bahrain will be investing US$650 million in completing the 2008 Energy City project in China. Similarly, many examples of MENA's interests in India's downstream energy sector exist. State-owned Indian Oil Corporation and Saudi Aramco will build a new oil refinery with a capacity of 6 million tons a year in Punjab, India, as part of a venture that would eventually cost US$2 billion. They have agreed to invest US$125 million each as equity. In addition, Indian Oil Corporation and Aramco are partnering in a refining project in Orissa, with a building cost of US$5.6 billion, to be online in 2011. In 2007, Gulf Finance House launched the Energy City project in India with an equity placement of US$635 million. See Lee and Salmon (2007).
18. In December 2007, Global Investment House concluded two real estate investments in China and India, to develop both residential and retail space. In China, it entered into a joint venture with a Chinese real estate development and construction company.
19. Chinese outward FDI net flows reached almost US$18 billion in 2006, up 44 percent from the previous year. But more than four-fifths of these flows go through third parties, such as the Cayman Islands and Hong Kong, China, complicating the interpretation of destinations.
20. Several anecdotes illustrate this point. For example, in December 2007, China's Sinopec signed a deal to buy oil and gas from the Islamic Republic of Iran and to develop the Yadavaran oil field. Sinopec has committed to buying 250 million tons of liquefied natural gas from the Islamic Republic of Iran over 30 years. In 2004, the government of Oman and Sinopec signed an oil-concession agreement that provides for oil and gas exploration and production in two 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, Sinopec plans to expand cooperation to include petrochemicals, training, and exchange of expertise. Also in 2004, officials from China and the Republic of Yemen established a number of energy agreements calling for mutual exploration of Yemeni oil fields by CNPC and the Yemeni National Oil Company, as well as increased cooperation for technological exchange between the two companies. A joint oil venture, the Sino-Syrian Kawkab Oil Company, was founded in 2004 to develop an old oil field in northeast Syrian Arab Republic. Finally, in 2004, Aramco granted Sinopec a US$300 million concession to explore and produce natural gas in Saudi Arabia.
21. A 2007 report by the Euro-Mediterranean Network of Investment Promotion Agencies shows that in 2006 India invested more than US$730 million

in 17 projects in the Mediterranean partner economies, mostly in chemicals and software, but also in banking and consulting services. China and India ranked as 15 and 19 in countries investing in the Mediterranean partner economies in aggregate FDI flows in 2006, and they are among the top three investors, with the Russian Federation, in chemicals. Mediterranean partner economies comprise Algeria, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, the Palestinian Authority, Syria, and Tunisia (De Saint-Laurent and Henry 2007).

22. De Saint-Laurent and Henry (2007) show 20 new projects (from more than US$1 billion) initiated in 2006 by China in the Mediterranean partner economies, mostly in banking, cement, machinery, and telecommunications.
23. Given the lack of official databases on FDI (by country and sector), this study uses a unique dataset produced by a private company, OCO Monitor (2007), 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.
24. China has until recently invested mostly through state-owned enterprises or firms with monopoly rights to secure strategic assets. Private firms required 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.
25. *Labor service 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.
26. Some studies find a much stronger link between trade openness and export diversification than between FDI and diversification (Noland and Pack 2007).

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CHAPTER 5

Directions for the Future

While the current economic crisis has slowed down global growth, medium-term growth prospects for China and India remain positive. The Middle East and North Africa (MENA) 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 (EU) and other markets. With unemployment already high in the region, these losses may be especially difficult to weather. 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 institutional shifts appear to have preceded and accompanied sustained, growth-oriented policy changes—shifts that have barely begun for MENA countries.

Effect of Growth in China and India on MENA Countries

The World Economic Forum that took place in May 2008 proclaimed that China and India will become the dominant manufacturing and services powerhouses, while Gulf Cooperation Council 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, MENA's competitiveness in labor-intensive manufacturing has been affected by China's and India's successful manufacturing growth. Competitive pressures for producers have multiplied, particularly in the unskilled, labor-intensive industries.

What will the future bring to the resource-poor, labor-abundant countries of MENA? How will the welfare of all MENA citizens be affected by these events? The literature offers a number of approaches to analyze these questions (box 5.1). This chapter uses a general equilibrium model to simulate the potential effect on MENA's output, prices, and exports of

BOX 5.1

Methodological Approaches

Several approaches can be used to address questions about China's and India's growth and the effect of such growth on the trade and growth of other countries. The first approach, favored by the U.K. Department for International Development (DFID 2005) and Jenkins and Edwards (2006), focuses mainly on bilateral trade links. However, strong spillover effects are likely when countries compete in the same third markets, even when no direct bilateral trade takes place between them.

A second approach—favored by Goldstein and others (2006), Lall and Weiss (2004), and Stevens and Kennan (2006)—considers global markets and compares the trade patterns of China with those of other countries of interest. This approach argues that countries whose exports are similar to China's exports are likely to suffer losses as China grows, whereas countries whose exports match China's imports are likely to receive a boost. Although informative, this approach ignores the two-way trade prevalent in manufactures and services and the possibility of gains from this trade even when net trade patterns are similar.

A third approach uses case studies of particular sectors to analyze developments in particular industries or markets. Yusuf, Nabeshima, and Perkins (2007), drawing on the new economic geography, argue that manufacturing production and exports will remain central to development in both countries. Although services will be important to India, they will not create a completely new development model, and China's appetite for primary imports seems bound to continue growing. The combination of these characteristics will favor certain mid- and high-tech sectors, including autos, electronics, and domestic appliances and eventually pharmaceuticals and engineering. With rapid growth of skilled labor, China could become a major force in some sophisticated sectors, but competing demand for skills in public service, general management, and education could delay its emergence as a technological leader for some time. The importance of exports in future development implies the continuation of low-skilled, labor-intensive manufacturing, but this production is most likely to take place inland, where large numbers of farmworkers could be trained for industrial work. India has had success with textile and clothing exports and is a growing force in pharmaceuticals, steel, and electronics; therefore, it will increasingly become an important competitor.

A fourth approach examines the trade links between China and India and their trading partners and the policy responses needed to best adapt to the growth of the emerging giants. Box 1.2 discussed earlier studies of China's and India's effect on the economies of Latin America and Africa. Abdel-Khalek and Korayem (2007) focus on the links between China and the countries of MENA, noting the very rapid growth of energy trade. The implications of policy reforms in China, especially the massive reforms associated with China's accession to the World Trade Organization, are analyzed with particular reference to their effect on MENA countries.

BOX 5.1 (continued)

Dimaranan, Ianchovichina, and Martin (2007) discuss the global effect of accelerated growth in China and India during 2004 to 2020 using scenarios based on the World Bank's baseline projections. The analytical exercise in this chapter is similar to their study and, in fact, updates their main results. They find three broad effects of the accelerated growth of China and India: other countries' exports face fiercer competition from China and India, China's and India's imports from these countries become cheaper, and other countries benefit from aggregate demand growth as real incomes increase in response to efficiency improvements. The balance of these forces varies by country, but because most countries import a substantial amount of goods from China and India, most countries gain overall, except some in Southeast Asia, the rest of South Asia, and the European Union. The rise in energy prices causes energy consumption, already heavily taxed in the European Union, to drop further. Chinese exports to other markets grow, while exports from other countries—especially manufactured products—fall. MENA as a whole increases exports to China and India but loses market share in the European Union and other markets. The countries in MENA appear to have an opportunity to strengthen trade ties with China and India, but without policy measures to boost competitiveness by 2020, overall exports from the region decline 1.5 percent from the baseline. The message: many MENA countries must boost their competitiveness.

changes in China's and India's growth as well as of improvements in the quality and variety of their exports up to 2020. This model is a special version of the Global Trade Analysis Project model (documented in Ianchovichina 2004).[1] First, a baseline for 2005 to 2020 is constructed using current World Bank growth and macroeconomic projections. Then the effect of a further acceleration of growth in China and India (2 percentage points per year higher than the projected rate) is considered. Finally, a special scenario in which the quality and variety of exports from China and India improve as they grow is examined (see appendix E for further details on the model).

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

The starting hypotheses included in the baseline projection of world economic output to 2020 are as follows: China's output grows at 6.6 percent annually; India's grows at 5.5 percent; and MENA's grows at 3.0 to 5.0 percent, closer to historical trends (table E.1 in appendix E). Next, the implications of higher-than-projected growth in India (1.9 percentage points higher a year) and China (2.1 percentage points 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.[2] Finally, following recent empirical evidence (see, in particular, Hummels and Klenow 2005), the hypothesis is added that economic growth increases both the quality and the variety of goods exported by the growing economy, and the implications of this hypothesis are then analyzed.[3]

Effect of Higher Growth in China and India on Welfare, Terms of Trade, and Exports

The effect of higher growth in China and India on real incomes (welfare), terms of trade, and exports is described in table E.2 in appendix E. MENA is likely to benefit substantially from increased growth in China and India. Real incomes in MENA could rise US$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, industrial 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.

Improved welfare in the region 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. Because of the region's sizable exports of energy products and the larger increase in energy prices than in prices of other goods, the region's benefit as a whole from the strongest terms-of-trade gains is unsurprising. The welfare gain of the oil exporters in MENA is exceeded only by the welfare gains of China and India. However, exporters of manufactured products suffer from increased competition and lower prices.

Because 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. They 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

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 (%)
Rice	1.05	1.71
Wheat	3.16	3.40
Grains	2.58	2.85
Vegetables and fruits	2.08	2.25
Oils and fats	–0.21	–0.70
Sugar	–0.67	–1.29
Plant–based fibers	3.41	3.55
Other crops	1.24	1.15
Livestock and meat	–0.27	–0.80
Dairy	–0.78	–1.44
Other processed foods	–0.82	–1.40
Energy	5.52	4.89
Textiles	–1.15	–1.10
Wearing apparel	–1.90	–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	–1.70
Communications	–2.13	–2.42
Other services	–1.66	–2.24
All	–1.24	–1.45

Source: Authors' simulations with Global Trade Analysis Project-DD (Ianchovichina 2004).

fixed. As energy demand rises with an increase in incomes, energy prices are pushed up relative to factor prices. In this chapter's 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.[4] 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.

Effect on Welfare and Trade of Accelerated Growth and Improved Quality and Variety of Exports

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 E.2 in appendix E). 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.[5] 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, each of whose estimated welfare gains increases by about 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.

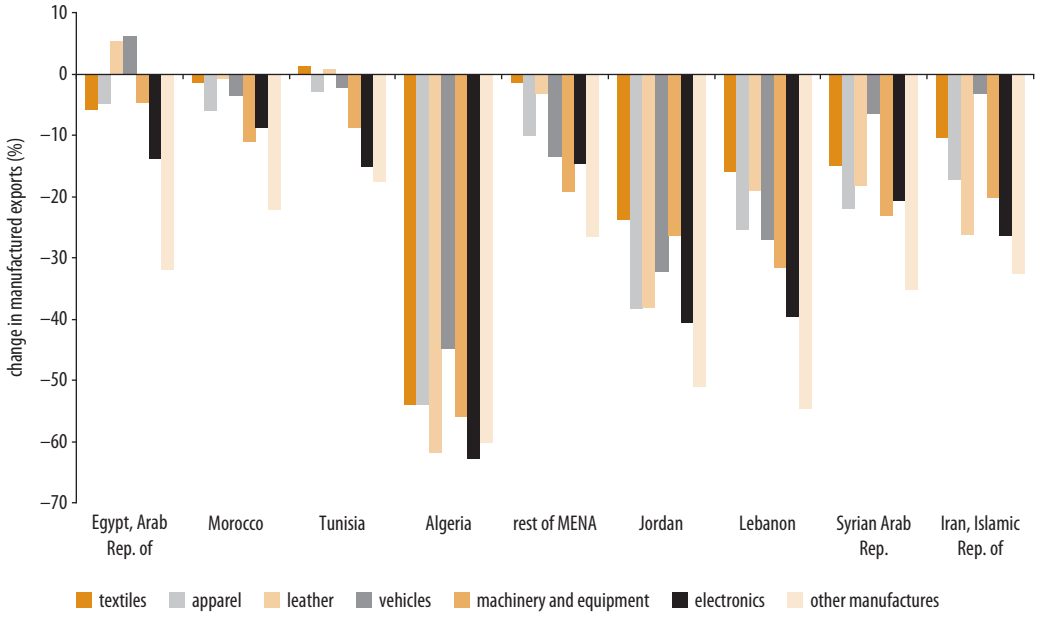
Real incomes in MENA countries could rise US$29 billion a year (at 2004 prices), US$5 billion more than in the case where growth in China and India is not accompanied by changes in types and quality of exports. However, some countries in MENA (Algeria, Jordan, Tunisia, and a few others) will experience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

Net Export Losses for MENA

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 all MENA countries. Similarly, large declines are expected for machinery and equipment, electronics, and other manufactures. Other industries will flourish, however, including energy, metals, and agriculture products such as vegetables and fruits.

FIGURE 5.1

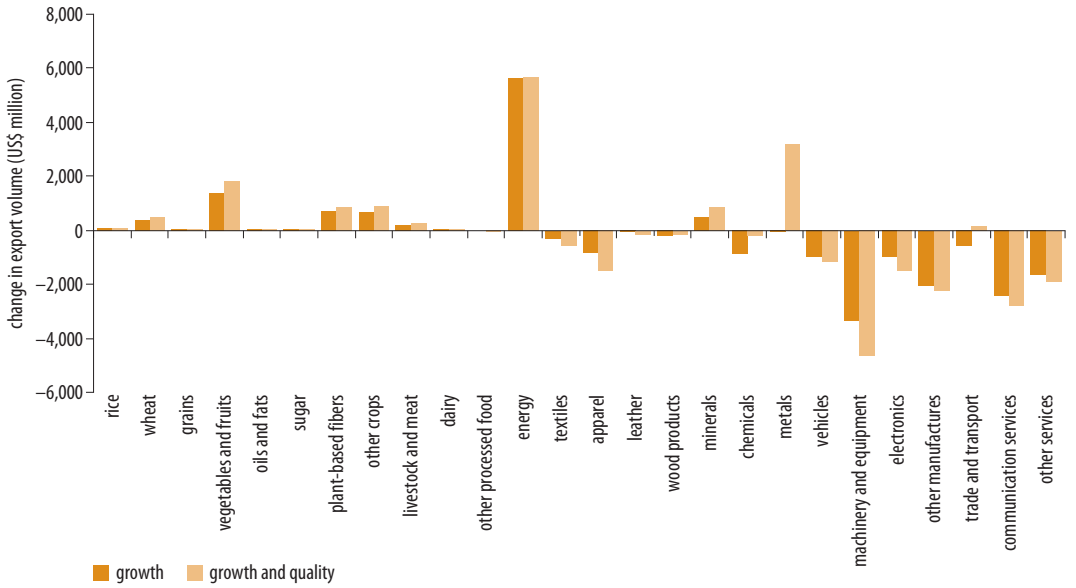
Change in Manufactured Exports Because of High Growth in China and India



Source: Authors' simulations with Global Trade Analysis Project-DD (Ianchovichina 2004).

FIGURE 5.2

Changes in Export Volumes under Different Assumptions of Growth Relative to Baseline



Source: Authors' simulations with Global Trade Analysis Project-DD (Ianchovichina 2004).

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 deindustrialize (or deagriculturalize) the economy by attracting resources away from the lagging non-oil-production sectors and raising the prices of nontradables in the economy (thus further lowering the competitiveness of the lagging sector). In principle, however, the resource boom may allow governmental expenditures in the lagging sector that raise its competitiveness through measures such as technological improvement. All MENA countries will face more pressure to adjust their domestic and trade policies to increase competitiveness and cushion the effects of rising oil prices and revenues on their nonenergy sectors. The challenges will be great because the few export sectors enjoying dynamic export growth are capital intensive, 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

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 non-oil-producing MENA countries. Tunisia, the fastest growing of these countries in the 1990s, saw total factor productivity (TFP) in the whole economy increase by approximately 1.8 percent per year from 1990 to 2000. TFP grew in Egypt by 1.6 percent from 1991 to 2000 and by 1.1 percent from 2001 to 2006. Algeria, Jordan, and Morocco had no or negative TFP growth over the 1990 to 2000 period (Bosworth and Collins 2003). These rates fall well below those in China.[6] Even countries that have experienced more rapid productivity growth have seen employment lagging.[7] But how important is productivity growth in both oil-producing and non-oil-producing MENA countries, particularly in a global economy in which China and India have emerged as export powerhouses? And can MENA countries learn any lesson from the growth experience of China and India? These questions are discussed in the next sections.[8]

Addressing Obstacles to Investment and Productivity Improvement in Labor-Abundant, Non-Oil-Producing MENA Countries

Growth and innovation require (a) capital, (b) the freedom and ability of innovative entrepreneurs to enter new markets and to move capital away from unsuccessful efforts, and (c) investor expectations of minimally predictable government policies that refrain from opportunistic expropriation of successful entrepreneurs. The Chinese and Indian productivity revolutions entailed major changes in the 1980s and 1990s that affected all of these factors. 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 that encouraged 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 attributable in part to its lack of investment in roads and power.

Only recently, and then only in some countries and in some policy areas, has MENA seen changes in a similar direction. Overall, however, persistent governance concerns, low public spending on infrastructure, limitations on private provision of infrastructure services (such as telecommunications), 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, non-oil-producing countries, while a separate set of issues concerns the oil-producing countries.

Finance

The ability of labor-abundant, non-oil-producing MENA countries 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 non-oil-producing MENA countries: credit to the private sector as a fraction of gross domestic product (GDP) is higher in Egypt, Jordan, Lebanon, Morocco, and Tunisia than in East Asia (Keefer 2007b). Capital is abundant in the region, in both traditional banking and Islamic financial institutions.

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 a low of 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 non-oil-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 non-oil-producing MENA countries.[9]

How can lending to the private sector in non-oil-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 because of 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).

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, banks tend to make high collateral demands and disfavor forms of collateral other than property. 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 caused by the extent of state ownership of commercially attractive property and by inadequacies in land registration institutions that obstruct land sales and rental markets.[10]

Chapter 2 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 (2006a) indicate high rates of trade restrictiveness among non-oil-producing countries in MENA relative to East Asian comparators. Kee, Nicita, and Olarreaga (2006a) 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 trade reforms of 2004 to 2006 halved the country's trade barriers, they remain substantially higher than those of East Asian comparator countries.

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 industrial countries, where entry barriers are uniformly low for all investors, and to China, where many officials can approve investments, large investments in non-oil-producing MENA countries must have formal or informal approval from high-level government officials. This requirement 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 explicit understandings with high-level officials prudent for large investors to provide insurance against adverse policy changes.

Aggregate indicators suggest a governance environment at least on par with fast-growing economies, 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 did the large East Asian countries.[11] 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, after trade regimes are liberalized, turn to similar arrangements to avoid paying value-added taxes. This suggestion 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.

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.

Agénor, Nabli, and Yousef (2005) observe that public investment in MENA countries 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 spent less than 1.8 percent. Although more than India's spending (1.5 percent of GDP), these levels were far less than that of China (more than 7 percent of GDP in some years). From 1990 to 2002, for example, China increased its total road network by 50 percent, with half the increase achieved during 1990 to 1995. Both China and India have liberalized key infrastructure sectors—particularly telecommunications—to a far greater degree than non-oil-producing MENA countries.

Attitudes and the Investment Climate in Non-Oil-Producing MENA Countries

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. Evidence exists that attitudes in MENA substantially differ from those in China and, to a lesser extent, 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 countries or in 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.

The World Values Surveys (most of them undertaken in 2001 and 2002) are the best source of evidence on some of these issues.[12] One survey question concerns the value that respondents place on leisure. Of the Chinese respondents, 49 percent 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 in Egypt, where only 9 percent rated leisure as very important, which was the closest to the Chinese respondents.

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, whereas resources dedicated to religious activities slow growth. Religion is far more important in MENA than in many other countries in the world. In all MENA countries, more than 90 percent of those surveyed responded that religion was very important, and nearly 100 percent said that it was very or rather important.[13]

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 who said others would be fair. This finding 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 of others makes a shift toward market-based policies and away from government-guided economic relations appear much more risky to citizens.

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 individuals' welfare. But the question is ambiguous: whether the question refers to "more responsibility, relative to the responsibility they currently accept" or "who bears more responsibility for welfare" is unclear. Whichever is the case, 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, 18 percent of Egyptians, 8 percent of Iranians, and 6 percent of Saudi Arabians.

Whether or not 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 finding 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.

The political changes in China and India are important when considering assessments of Chinese reforms that emphasize pragmatism, including assessments by Chinese leaders themselves (Keefer 2007a). Pragmatism is often taken to mean that the reforms were incremental. In this case, however, although the approach was pragmatic, the shifts in the underlying policy—and institutional—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.

The Response of Oil-Producing MENA Countries to the Rise of China and India

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? And how should they manage the impact of oil price volatility? 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 that are widely addressed elsewhere.[14] The focus here is thus on the second question: how can MENA's oil producers best use their oil revenue to spur productivity growth in the region and in their own countries?

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 trade-offs 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 trade-off between investing their oil wealth in downstream petroleum sector activities or in other activities further removed

from petroleum. One trade-off 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. Although 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.

Investing in big projects

Most of the unprecedented oil wealth associated with the recent 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 at jumping straight from producing a commodity to creating an environment for sophisticated manufacturing and service enterprises. Dubai, United Arab Emirates, 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 Asia and Europe. These investments 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 service 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 the 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.

Investing in people

A greater challenge is integrating 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 Massachusetts and California) has taken place in settings with large

communities of scientists and cities with social and political characteristics much different from those in Jeddah, Saudi Arabia, or in Qatar.[15]

Investing in the region

Oil-producing countries' investments in their own countries look much different from their investments in non-oil-producing countries. Foreign direct investment (FDI) is believed to be one of the main channels through which countries gain the advantages of foreign expertise, market access, and entrepreneurial skill.[16] However, much of the FDI into non-oil-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 non-oil-producing countries, thereby making operations more difficult for local producers. Such investments, then, "export" the Dutch disease from oil-producing countries to non-oil-producing countries. This effect is added to that of the steady rise of immigrant remittances from the migrant workers who are employed in the Gulf countries.

The lack of greater direct investment from oil-producing to non-oil-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.[17] One immediate implication of these results for MENA is that venture capital—and, most likely, FDI—should flow more easily within the region than from outside the region. The World Values Survey may provide an explanation for this hypothesis, 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 Organisation 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 a standard deviation). By contrast, proximity and affinity did matter in China; in fact, a large share of FDI into China is from expatriate Chinese and from economies located close to China (Japan and Taiwan, China, for example).

Oil producers in the region have less technical expertise to share with the non-oil-producing countries. They have the capacity to partner with foreign enterprises that do have such expertise, thereby catalyzing FDI 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" vis-à-vis investments in the region.

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 have developed a multitude of sharia-compliant financial instruments. One estimate of deposits at Islamic banks puts the figure at US$300 billion, whereas the International Monetary Fund puts the assets of all Islamic financial institutions at US$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 non-oil-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 actual investment decisions. The clearest indication: Islamic financial institutions have as great propensity to channel capital into the markets as conventional financial institutions in non-Islamic countries. The reason for this finding may simply be related to the investment climate in the non-oil-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.

Conclusion

China and India have created new opportunities and challenges for all countries. This chapter has shown that 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 non-oil-producing countries, thus challenging their growth prospects. All MENA countries, but particularly the labor-abundant non-oil-producing countries, will face pressures to adjust their domestic policies to increase competitiveness and cushion the effects on their nonenergy sectors.

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 voters expected such a policy.

In the end, the main burden for increasing employment-generating investment in the non-oil-producing MENA countries falls to the non-oil-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 like the reforms 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.

Given the need for broad and deep reform, MENA countries have to choose which reforms to emphasize. Although the specifics of Chinese and Indian reforms do not offer strong guidance here, analysts and domestic entrepreneurs concur on the importance of financial sector reform, on systematic removal of barriers to entry (such as those imposed by difficult access to land and continued high tariffs in many countries), and on 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.

Notes

1. A general equilibrium model ensures consistency while including important industry details: each region's exports of particular goods equals 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.
2. 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.
3. In all simulations, the trade balances as shares of gross domestic product were held constant for China and India to avoid welfare changes caused by 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.

4. First is the technological change effect described 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-to-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 (2007), the prices of agricultural products fell because the stocks of capital and human capital remained constant.
5. In the model with product-quality-augmenting technical change, because 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, the terms of trade can improve for both importers and exporters.
6. 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 downward), 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 explain the finding of Yeats and Ng (2000) that the international competitiveness of many MENA countries appeared to decline in the 1990s—precisely when productivity exhibited striking increases in China and India.
7. Some evidence suggests that in Morocco (1999–2003) and Tunisia (1997–2001) 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, Philippon and 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, thus 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.
8. Answers to this final question are provided in the recent World Bank (2008c). The aim of this chapter is limited to the discussion of MENA's relationship with China and India.

9. All comparisons in this paragraph are from the World Bank 2008a.
10. See Keefer 2007b, table 4, based on data from the World Bank Investment Climate Surveys (http://www.enterprisesurveys.org).
11. 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/).
12. The World Values Survey (http://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 people in more than 80 countries and conducted four waves of surveys since 1981.
13. McCleary and Barro (2006) find, however, that Muslim countries are an outlier. They score high on religious beliefs and low on frequency of attendance at religious services, which suggests that Muslim countries should grow faster than average. In fact, they grow much more slowly than average. McCleary and Barro attribute this finding to mismeasurement: the frequency of attendance, 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 explanation could indeed be the case.
14. For a classic discussion, see Gelb 1988.
15. Glaeser and Ponzetto (2008) point to the significant interplay between technology, ideas production, and goods production in determining which cities succeed and fail.
16. Portfolio investments by foreigners, distinct from FDI, can eventually drive up direct investment, but portfolio investments begin by simply raising the value of the assets of existing entrepreneurs. This result 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 non-oil-producing MENA countries, portfolio investment does not spur new direct investment or productivity growth.
17. 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.

APPENDIX A

Statistical Information

TABLE A.1

Selected Economic Indicators

Country	2007		2005–07					Global competitiveness (2007–08 rank)[a]
	Population (million)	GNI per capita, purchasing power parity (current international $, 2006)	Real GDP (%)	Export growth (%)	Gross investment (% of GDP)	Net foreign investment (% of GDP)	Trade openness (export + import) (% of GDP)	
China	1,321	4,660	11.4	26.3	42.4	3.2	68.0	34
India	1,124	2,460	9.2	25.1	32.2	0.8	40.9	48
Algeria	34.4	5,940	3.8	4.5	31.7	1.0	68.6	81
Djibouti	0.8	2,260	4.3	–0.9	23.1	4.5	90.6	—
Egypt, Arab Rep. of	73.6	4,940	6.1	23.9	17.9	3.8	61.9	77
Iran, Islamic Rep. of	70.9	9,800	5.9	–4.4	34.7	0.0	62.0	—
Jordan	5.7	4,820	6.7	9.0	24.6	8.9	141.9	49
Lebanon	3.8	9,600	0.7	10.7	21.2	10.4	64.7	—
Morocco	30.7	3,860	3.8	6.7	25.7	2.3	78.7	64
Syrian Arab Rep.	19.4	4,110	4.5	13.3	21.2	1.3	66.5	80
Tunisia	10.3	6,490	5.2	5.0	23.8	2.3	101.4	32
Yemen, Rep. of	22.3	2,090	3.7	—	—	–0.3	—	—
Bahrain	0.8	32,559	6.8	—	22.7	—	146.6	43
Kuwait	3.3	48,310	6.6	5.8	18.8	0.2	93.8	30
Oman	2.6	19,740	6.9	14.1	17.8	0.8	99.7	42
Qatar	0.9	70,084	10.1	—	34.4	—	97.0	31
Saudi Arabia	24.3	22,300	5.3	—	17.6	—	82.3	35
United Arab Emirates	4.5	31,190	8.1	11.2	23.4	—	167.8	37

Sources: World Bank; World Economic Forum; International Monetary Fund.

Note: — = not available. Figures for MENA countries are 2007 estimates; figures for China and India are 2006 estimates.

a. The best ranking is 1; the worst is 131.

TABLE A.2

MENA's Trade, 2006

	MENA to rest of world (US$ million)	MENA to China (US$ million)	MENA to India (US$ million)
Exports of goods and 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
	MENA from rest of world (US$ million)	*MENA from China (US$ million)*	*MENA from India (US$ million)*
Imports of goods and services	427,087	36,389	19,124
Merchandise imports	240,073	16,590	13,924

Sources: United Nations Commodity Trade Statistics Database (UN Comtrade); World Bank's Global Development Finance online; International Monetary Fund Direction of Trade statistics.

Note: Merchandise imports data for India are for 2005.

TABLE A.3

Total Energy Exports from MENA Countries to China and India, 1997–2006

Country	Amount (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, Arab Rep. of	208	192	489	254	224	345	368	324	525	1,511
Iran, Islamic Rep. of	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	4,121	1,446	2,014	4,636	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
Syrian Arab Rep.	0	0	5	20	18	34	43	36	55	65
United Arab Emirates	1,232	901	1,668	1,620	1,493	1,472	1,860	3,196	4,743	6,548
Yemen, Rep. of	657	523	936	1,366	1,003	1,122	2,357	2,426	4,077	3,703

Source: UN Comtrade.

TABLE A.4

MENA's Merchandise Imports from China and India, 2006

a. China

	Food (US$ million)	Fuels (US$ million)	Manufactures (US$ million)			Total imports from China (US$ million)	Share of world imports (US$ million)
			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, Arab Rep. of	56	7	1,094	468	133	1,199	5.8
Iran, Islamic Rep. of	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 Arabia	113	8	5,736	2,258	1,237	5,979	8.6
Syrian Arab Rep.	19	1	721	334	73	747	6.5
Yemen, Rep. of	36	0	345	97	49	389	7.9
Tunisia	4	0	366	203	55	381	2 9

b. India

	Food (US$ million)	Fuels (US$ million)	Manufactures (US$ million)			Total imports from India (US$ million)	Share of world imports (US$ million)
			Total	Machinery & transport equipment	Textiles		
Bahrain	35	0	94	22	27	137	1.5
Algeria	30	0	390	176	11	423	2.0
Egypt, Arab Rep. of	46	57	214	71	45	356	1.7
Iran, Islamic Rep. of	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 Arabia	634	6	1,367	339	296	2,634	3.8
Syrian Arab Rep.	13	141	170	51	67	361	3.1
Yemen, Rep. of	56	0	108	14	7	167	3.4
Tunisia	8	0	76	10	29	103	0.8

Source: UN Comtrade.

Note: The figures for Tunisia refer to 2005 data.

Figures are based on the following Standard International Trade Classification (SITC) categories for food (SITC 0: Live animals chiefly for food; 1: Meat and meat preparations; 22: Oilseeds and oleaginous fruit; 4: Cereals and cereal preparations); on SITC 3 for fuels (32: Coal, coke, and briquettes; 33: Petroleum and petroleum products; 34: Natural and manufactured gas; 35: Electric current); and on SITC 26 + 65 + 84 for textiles (26: Textile fibers; 65: Textile yarn and fabrics; 84: Articles of apparel and clothing).

FIGURE A.1

MENA's Oil Exports, by Destinations, 1997 and 2006

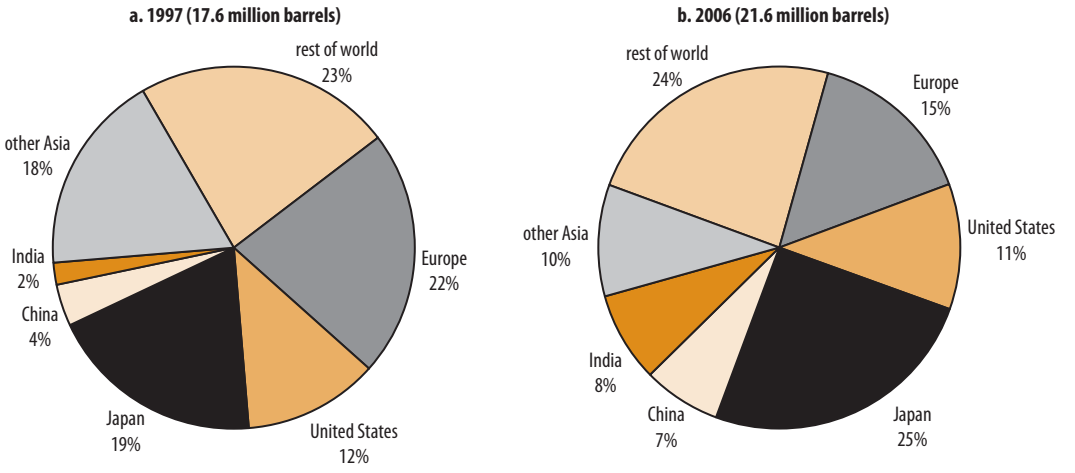


FIGURE A.2

MENA's Gas Exports, by Destinations, 1997 and 2006

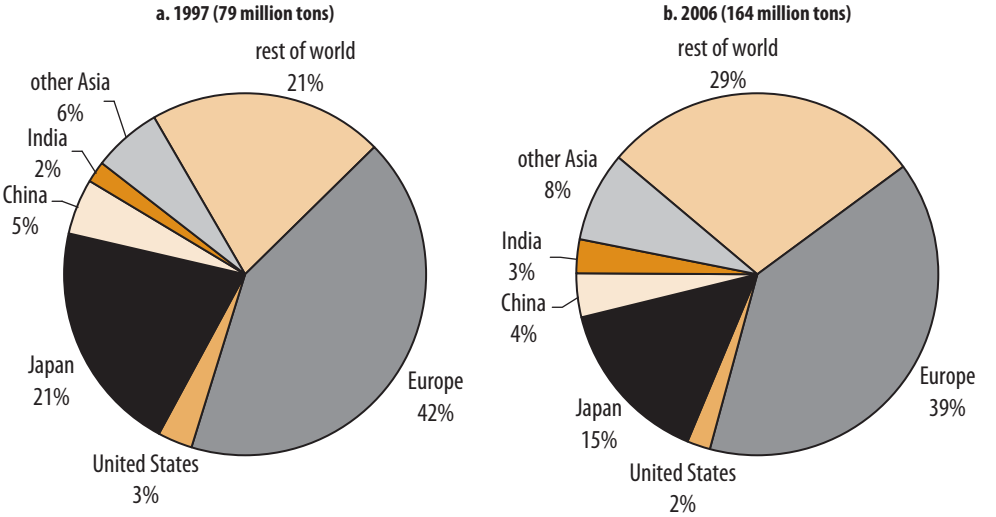


TABLE A.5

MENA's Merchandise Exports to China and India, 1995 and 2006

Export	Exports to China (US$ million)		Exports to India (US$ million)		Exports to China (% of total exports)		Exports to India (% of total exports)	
	1995	2006	1995	2006	1995	2006	1995	2006
Total trade	2,165	41,329	4,940	44,416	100	100	100	100
Mineral fuels, lubricants, and related materials								
33 Petroleum and 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 Nonmetallic mineral manufactures	2	3	3	773	0.1	0.0	0.1	1.7
68 Nonferrous 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, not elsewhere classified	6.3	2.3	2.5	67.0	0.3	0.0	0.0	0.2
61 Leather, leather manuf.	1.9	13.9	2.9	56.1	0.1	0.0	0.1	0.1
65 Textile yarn, fabrics, made-up articles, and so on	0.6	14.5	3.6	22.3	0.0	0.0	0.1	0.1
64 Paper, paperboard, articles of paper, and so on	0.1	0.7	2.8	10.2	0.0	0.0	0.1	0.0
62 Rubber manufactures, not elsewhere classified	0.1	0.2	0.2	8.5	0.0	0.0	0.0	0.0
Chemicals and related products								
52 Inorganic chemicals	22	27	508	967	1.0	0.1	10.3	2.2
51 Organic chemicals	28	2,289	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 Artificial resins, plastic materials, and cellulose	187	1,852	108	346	8.7	4.5	2.2	0.8
59 Chemical materials and products, not elsewhere classified	0	2	1	36	0.0	0.0	0.0	0.1
55 Essential oils and perfumes; toiletries	0.0	1.3	0.1	7.9	0.0	0.0	0.0	0.0
53 Dyeing, tanning, and coloring 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 fibers (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

(Table continues on the following pages.)

TABLE A.5 (continued)

Export	Exports to China (US$ million)		Exports to India (US$ million)		Exports to China (% of total exports)		Exports to India (% of total exports)	
	1995	2006	1995	2006	1995	2006	1995	2006
Machinery and transport equipment								
79 Other transport equipment	0	0	5	296	0.0	0.0	0.1	0.7
76 Telecommunications and 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, and apparatus	1	292	34	49	0.0	0.7	0.7	0.1
74 General industrial machinery and equipment	0	3	3	23	0.0	0.0	0.1	0.1
71 Power-generating machinery and equipment	0	0	1	8	0.0	0.0	0.0	0.0
75 Office machines and automatic data equipment	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 and live animals								
05 Vegetables and fruit	1	13	31	85	0.0	0.0	0.6	0.2
07 Coffee, tea, cocoa, and spices	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, and mollusks	4	9	0	1	0.2	0.0	0.0	0.0

Source: UN Comtrade.

TABLE A.6

Exports Growth Regressions

Export supply effect (*dimports*)	0.4077[a]	Export supply effect (*dimports*)	0.4077[a]
	(66.80)		(61.75)
China export effect (*dchina*)	–0.1753[a]	India export effect (*dindia*)	–0.0867[a]
	(8.83)		(3.42)
R^2	0.17	R^2	0.18
Observations	497,410	Observations	439,880
Dummies	65,564	Dummies	54,566

Source: World Bank staff calculations.

Note: The regressions include four-digit product and year effects. The estimates thus rely entirely on cross-market variation in Chinese or Indian import penetration in a given product. Absolute value of t-statistics is shown in parentheses.

a. Statistically significant at the 1 percent level.

TABLE A.7

Revealed Comparative Advantage Regressions

	Labor-abundant countries	GCC countries		Labor-abundant countries	GCC countries
RCA China	0.206	–0.035	Natural resources*RCA China	n.s.	n.s.
	(18.17)	(2.75)			
RCA India	0.044	–0.066	Unskilled labor*RCA China	0.145[a]	–0.113[a]
	(3.69)	(5.21)			
Bilateral net exports to China	4.11e-05	1.25e-05	Technology*RCA China	0.052[a]	0.080[a]
	(6.46)	(7.11)			
Bilateral net exports to India	2.12e-05	1.29e-05	Skilled labor*RCA China	0.251[a]	0.130[a]
	(4.43)	(8.87)			
Constant	–0.819	–1.314	Primary*RCA India	–0.132[a]	–0.173[a]
	(6.87)	(11.84)	Natural resources *RCA India	0.179[a]	–0.074[b]
Year effects	Yes	Yes			
Country effect	Yes	Yes	Unskilled lab or RCA India	0.411[a]	0.225[a]
Observations	20529	10080	Technology*RCA India	–0.151[a]	–0.108[a]
R^2	0.19	0.20			
Primary*RCA China	0.199[a]	–0.123[a]	Skilled lab or RCA India	0.174	0.050

Source: World Bank staff calculations.

Note: GCC = Gulf Cooperation Council; RCA = Revealed comparative advantage; n.s. = not significant. Absolute value of *t*-statistics is shown in parentheses.

a. Statistically significant at the 1 percent level.

b. Statistically significant at the 5 percent level.

TABLE A.8

Share of Reexports in Total Exports

Product name	Labor- abundant countries	GCC	United Arab Emirates
Food and live animals	**1.1**	**34.3**	**58**
Vegetables and fruit	0.3	48.9	83.8
Crude materials	**0.3**	**32.4**	**43.1**
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
Metalliferous ores and metal scrap	0.2	25.0	29.0
Chemicals	**1.3**	**6.1**	**47.4**
Essential oils and resinoids and perfume materials; toilet, polishing, and cleansing preparations	3.0	54.5	81.2
Manufactured	**1.0**	**57.4**	**84.5**
Textile yarn, fabrics, made-up articles, not elsewhere specified, and related products	1.0	76.3	93.6
Nonmetallic mineral manufactures, not elsewhere specified	0.6	81.9	92.1
Iron and steel	0.7	29.7	78.0
Nonferrous metals	0.4	33.2	63.0
Manufactures of metal, not elsewhere specified	2.3	48.1	81.0
Machinery and transport	**9.0**	**91.4**	**97.6**
Power-generating machinery and equipment	25.2	96.3	99.8
Machinery specialized for particular industries	22.2	96.0	97.8
General industrial machinery and equipment, not elsewhere specified, and machine parts, not elsewhere specified	12.7	68.1	88.3
Telecommunications and sound-recording and reproducing apparatus and equipment	35.3	99.8	100.0
Electrical machinery, apparatus and appliances, not elsewhere specified, and electrical parts thereof	0.7	65.6	93.9
Road vehicles (including air-cushion vehicles)	19.5	96.2	97.5
Other transport equipment	45.3	98.2	89.5
Miscellaneous	**0.9**	**75.3**	**86.7**
Furniture and parts thereof; bedding, mattresses, mattress supports, cushions, and similar stuffed furnishings	4.7	72.9	86.8
Articles of apparel and clothing accessories	0.2	70.6	81.9
Professional, scientific, and controlling instruments and apparatus, not elsewhere specified	18.2	97.8	99.0
Miscellaneous manufactured articles, not elsewhere specified	3.3	69.0	83.9
Total	**0.6**	**8.9**	**22.9**
Total without SITC 3	0.9	54.1	85.9

Source: UN Comtrade.

Bahrain	Oman	Qatar	Saudi Arabia	Share in reexport	Share in export
20.5	**6.3**	**48.2**	**8.3**	**2.2**	**0.7**
46.4	9.1	69.1	8.6	0.7	0.1
0.5	**20.6**	**25.7**	**32.0**	**43**	**0.3**
0.1	91.4	99.9	37.9	0.9	0.0
0.4	42.3	2.1	67.8	2.8	0.2
5.2	**6.7**	**0.6**	**0.7**	**2.2**	**5.2**
38.5	34.1	47.6	6.5	0.7	0.2
2.4	**9.5**	**56.5**	**8.0**	**8.0**	**2.0**
5.6	75.2	95.0	8.5	0.6	0.1
34.4	1.7	22.3	4.1	0.6	0.2
13.3	6.5	49.3	7.7	3.4	0.4
0.1	1.3	82.6	9.1	0.7	0.6
36.6	15.8	90.5	11.9	1.9	0.3
78.7	**66.1**	**99.1**	**72.3**	**74.3**	**1.7**
99.9	100.0	100.0	83.9	2.9	0.1
99.8	99.9	99.9	87.4	4.8	0.1
23.6	81.4	95.9	34.4	3.2	0.2
100.0	100.0	100.0	88.6	1.7	0.0
56.0	11.0	95.8	15.5	1.8	0.3
97.8	100.0	99.8	89.9	26.3	0.5
17.6	99.7	99.2	99.9	32.7	0.5
13.0	**31.1**	**52.5**	**36.9**	**7.5**	**0.4**
7.0	6.4	88.1	57.2	0.7	0.0
1.6	41.2	8.3	81.0	1.2	0.1
99.3	99.5	99.7	92.3	1.3	0.0
13.2	20.5	83.6	20.2	3.4	0.3
2.7	**7.4**	**1.6**	**1.6**	**100**	**100**
11.2	22.7	22.3	15.1	99.9	20.9

TABLE A.9

Revealed Comparative Advantages in Labor-Abundant Countries, China, and India: Top Commodities, 2005

Code	Product	Labor-abundant countries	China	India	Category
	Food and live animals				
36	Crustaceans and mollusks, fresh and chilled	5.41	5.46	0.49	Food
57	Fruit and nuts (not including oil nuts)	2.93	–0.07	–0.13	Food
35	Fish, dried, salted or in brine, and smoked	2.72	4.74	1.07	Food
37	Fish, crustaceans, and mollusks and preparations thereof	2.67	5.68	4.51	Food
56	Vegetables, roots, and tubers, prepared or preserved	2.65	3.40	3.89	Food
75	Spices	2.28	0.85	2.85	Food
58	Preserved fruit and fruit preparations	2.20	2.05	2.27	Food
54	Vegetables, fresh, chilled, frozen, or preserved	2.04	–0.86	1.51	Food
34	Fish, fresh (live or dead), chilled or frozen	1.97	3.02	0.09	Food
25	Eggs and yolks, fresh, dried, or otherwise preserved	1.35	4.76	5.09	Food
	Crude materials				
289	Ores and concentrates of precious metals	8.53	1.88	1.25	Crude
244	Cork, natural, raw, and waste	5.47	–3.12	–1.49	Crude
271	Fertilizers, crude	5.25	–4.79	2.97	Crude
211	Hides and skins (except furskins)	4.01	–4.48	–3.96	Crude
288	Nonferrous base metal waste and scrap	3.14	–3.71	–3.68	Crude
291	Crude animal materials, not elsewhere specified	2.86	1.24	1.10	Crude
263	Cotton	2.78	–1.46	–2.42	Crude
273	Stone, sand, and gravel	2.45	1.74	–1.10	Crude
265	Vegetable textile fibers and waste	2.25	–0.55	–3.44	Crude
282	Waste and scrap metal of iron or steel	2.03	–5.17	–4.22	Crude
	Chemicals				
522	Inorganic chemical elements, oxides	2.61	–2.58	0.34	Technology
562	Fertilizers, manufactured	2.59	–4.73	–1.98	Technology
511	Hydrocarbons, not elsewhere specified and their halogenated, sulfonated, nitrated, or nitrosated derivatives	1.66	–0.96	–2.87	Technology
554	Soap, cleansing and polishing preparations	0.57	–0.76	–1.13	Skilled labor
523	Other inorganic chemicals	0.39	–0.52	0.79	Technology
551	Essential oils, perfume, and flavor materials	0.33	0.89	–0.63	Skilled labor
553	Perfumery, cosmetics, and toilet preparations	0.06	0.64	1.32	Skilled labor
	Manufactured goods				
659	Floor coverings and so forth	4.32	3.85	2.52	Unskilled labor
633	Cork manufactures	3.72	–0.29	–0.10	Natural resources
689	Miscellaneous nonferrous base metals employed in metallurgy	2.74	–2.45	1.34	Natural resources
658	Made-up articles, wholly or chiefly of textile materials not elsewhere specified	2.58	3.74	4.70	Unskilled labor
685	Lead	2.35	–4.42	1.76	Natural resources
667	Pearls, precious and semiprecious stones, unworked or worked	2.31	–0.01	–0.86	Natural resources
612	Manufactures of leather or of composite leather not elsewhere specified; saddlery and harness	2.13	2.52	0.83	Natural resources
613	Furskins, tanned or dressed, pieces or cuttings	1.93	–1.44	1.04	Natural resources
661	Lime, cement, and fabricated construction materials	1.78	2.96	2.46	Natural resources
611	Leather	1.51	0.87	–1.57	Natural resources
	Equipment and machines				
773	Equipment for distributing electricity	1.94	–0.55	0.51	Technology
776	Thermionic, cold cathode and photo-cathode valves and tubes	1.75	–1.60	–2.03	Technology
771	Electric power machinery and parts	0.46	0.07	0.85	Technology
772	Electrical apparatus such as switches, relays, fuses	0.36	–0.77	–0.45	Technology
793	Ships, boats, and floating structures	0.15	–4.25	–0.14	Unskilled labor

TABLE A.9 (continued)

Code	Product	Labor-abundant countries	China	India	Category
	Miscellaneous manufactures				
842	Men's outer garments of textile fabrics	4.19	4.23	4.03	Unskilled labor
843	Women's outer garments of textile fabrics	4.04	6.03	4.08	Unskilled labor
896	Works of art, collectors' pieces and antiques	3.77	3.42	3.48	Skilled labor
844	Undergarments of textile fabrics	3.63	4.80	3.17	Unskilled labor
845	Outer garments and other articles, not specified elsewhere	3.35	5.03	3.59	Unskilled labor
846	Undergarments, knitted or crocheted	3.10	5.25	4.24	Unskilled labor
897	Jewelry, goldsmiths' wares, and other articles of precious or semiprecious materials	2.67	2.93	2.50	Skilled labor
851	Footwear	2.63	3.42	5.80	Unskilled labor
951	Armored fighting vehicles	2.15	2.81	4.28	Technology
848	Articles of apparel and clothing accessories	1.55	4.15	4.36	Unskilled labor

Source: UN Comtrade.

TABLE A.10

Top 20 Commodities with High Revealed Comparative Advantages in Labor-Abundant Countries, 1995 and 2005

Code	Product	Revealed comparative advantage	Category
1995			
271	Fertilizers, crude	8.09	Crude
36	Crustaceans and mollusks, fresh, chilled, frozen, salted, or in brine	7.49	Food
289	Ores and concentrates of precious metals	7.17	Crude
896	Works of art, collectors' pieces, and antiques	5.92	Skilled labor
244	Cork, natural, raw, and waste	5.63	Crude
659	Floor coverings and so forth	5.48	Unskilled labor
291	Crude animal materials, not elsewhere specified	5.37	Crude
333	Crustaceans and mollusks, fresh, chilled, frozen, salted, or in brine	5.27	Energy
667	Pearls, precious and semiprecious stones, unworked or worked	5.05	Natural resources
288	Nonferrous base metal waste and scrap	4.85	Crude
843	Women's outer garments of textile fabrics	4.68	Unskilled labor
844	Undergarments of textile fabrics	4.49	Unskilledlabor
842	Men's outer garments of textile fabrics	4.20	Unskilled labor
633	Cork manufactures	3.87	Natural resources
57	Fruit and nuts (not including oil nuts)	3.83	Food
897	Jewelry, goldsmiths' wares, and other articles of precious or semiprecious materials	3.79	Skilled labor
211	Hides and skins (except furskins)	3.77	Crude
845	Outer garments and other articles, not specified elsewhere	3.69	Unskilled labor
334	Petroleum products, refined	3.62	Energy
851	Footwear	3.60	Unskilled labor
2005			
289	Ores and concentrates of precious metals	9.70	Crude
271	Fertilizers, crude	5.56	Crude
333	Petroleum and oils, obtained from bituminous minerals, crude	4.99	Energy
36	Crustaceans and mollusks, fresh, chilled, frozen, salted, or in brine	4.92	Food
288	Nonferrous base metal waste and scrap, not specified elsewhere	4.43	Crude
842	Men's outer garments of textile fabrics	4.22	Unskilled labor
659	Floor coverings and so forth	4.17	Unskilled labor
843	Women's outer garments of textile fabrics	4.13	Unskilled labor
244	Cork, natural, raw, and waste	3.97	Crude
844	Undergarments of textile fabrics	3.75	Unskilled labor
633	Cork manufactures	3.70	Natural resources
845	Outer garments and other articles not specified elsewhere	3.43	Unskilled labor
341	Natural and manufactured gas	3.37	Energy
846	Undergarments, knitted or crocheted	3.26	Unskilled labor
667	Pearls, precious and semiprecious stones, unworked or worked	3.04	Natural resources
689	Miscellaneous nonferrous base metals	2.92	Skilled labor
37	Fish, crustaceans, and mollusks, and preparations thereof	2.81	Food
57	Fruit and nuts (not including oil nuts)	2.78	Food
211	Hides and skins (except furskins)	2.72	Crude
522	Inorganic chemical elements, oxides	2.68	Technology

Source: UN Comtrade.

TABLE A.11

Top 20 Commodities with High Revealed Comparative Advantages in Gulf Cooperation Council Countries, 1995 and 2005

Rank	Code	Product	Revealed comparative advantage	Category
	1995			
1	341	Natural and manufactured gas	8.52	Energy
2	274	Sulfur and unroasted iron pyrites	7.51	Crude
3	333	Petroleum and oils, obtained from bituminous minerals, crude	6.99	Energy
4	289	Ores and concentrates of precious metals	6.85	Crude
5	334	Petroleum products, refined	5.97	Energy
6	282	Waste and scrap metal of iron or steel	5.74	Crude
7	512	Alcohols, phenols, phenol-alcohols, and their halogenated, sulfonated, nitrated, or nitrosated derivatives	5.39	Technology
8	288	Nonferrous base metal waste and scrap	5.35	Crude
9	211	Hides and skins (except furskins)	4.92	Crude
10	562	Fertilizers, manufactured	4.52	Technology
11	667	Pearls, precious and semiprecious stones, unworked or worked	4.36	Natural resources
12	681	Silver, platinum, and other metals	4.27	Natural resources
13	268	Wool and other animal hair	3.98	Crude
14	516	Other organic chemicals	3.95	Technology
15	611	Leather	3.93	Natural resources
16	261	Silk	3.59	Crude
17	351	Electric current	3.43	Energy
18	511	Hydrocarbons, not elsewhere specified, and their halogenated, sulfonated, nitrated, or nitrosated derivatives	3.40	Technology
19	35	Fish, dried, salted or in brine, and smoked	3.33	Food
20	36	Crustaceans and mollusks, fresh and chilled	3.09	Food
	2005			
	333	Petroleum and oils, obtained from bituminous minerals, crude	13.51	Energy
	341	Natural and manufactured gas	9.50	Energy
	274	Sulfur and unroasted iron pyrites	7.66	Crude
	289	Ores and concentrates of precious metals	5.45	Crude
	334	Petroleum products, refined	5.08	Energy
	212	Furskins, raw (including astrakhan)	4.42	Crude
	512	Alcohols, phenols, phenol-alcohols, and their halogenated, sulfonated, nitrated, or nitrosated derivatives	4.33	Technology
	667	Pearls, precious and semiprecious stones, unworked or worked	4.23	Natural resources
	288	Nonferrous base metal waste and scrap	3.92	Crude
	562	Fertilizers, manufactured	3.44	Technology
	611	Leather	3.25	Natural resources
	516	Other organic chemicals	3.15	Technology
	613	Furskins, tanned or dressed, pieces or cuttings	3.14	Natural resources
	211	Hides and skins (except furskins),	3.04	Crude
	282	Waste and scrap metal of iron	2.80	Crude
	268	Wool and other animal hair	2.75	Crude
	511	Hydrocarbons, not elsewhere specified, and their halogenated, sulfonated, nitrated, or nitrosated derivatives	2.52	Technology
	583	Polymerization and copolymerization	2.49	Technology
	261	Silk	2.26	Crude
	36	Crustaceans and mollusks, fresh and chilled	1.87	Food

Source: UN Comtrade.

TABLE A.12

Labor-Abundant Countries: Products with High Revealed Comparative Advantages and Associated Fastest-Growing Imports from China and India

	Code	Product	RCA, 2005	Share of total exports 2005 (%)	Growth of imports from China and India, 2000–05 (%)	Growth of imports from world, 2000–05 (%)	Imports from China and India to total imports 2005 (%)	Category
1	843	Outer garments, women's, textile fabrics	4.04	6.69	27.0	1.0	27.0	Unskilled labor
2	842	Outer garments, men's, textile fabrics	4.19	5.22	10.0	–2.0	29.7	Unskilled labor
3	57	Fruit and nuts (not including 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	Vegetables, fresh, chilled, frozen	2.04	2.83	9.0	2.0	11.2	Food
9	776	Thermionic, cold and photocathode valves and tubes	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 construction	1.78	1.85	19.0	7.0	6.6	Natural resources
13	36	Crustaceans and mollusks, fresh	5.41	1.63	34.0	18.0	8.2	Food
14	659	Floor coverings and so on	4.32	1.61	15.0	2.0	12.2	Unskilled labor
15	772	Electrical apparatus such as switches and relays	0.36	1.60	28.0	11.0	5.2	Technology
16	511	Hydrocarbons, not elsewhere specified	1.66	1.15	64.0	34.0	7.5	Technology
17	684	Aluminum	1.07	1.15	39.0	17.0	7.7	Natural resources
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 A.13

GCC Countries: Products with High Revealed Comparative Advantages and Associated Fastest-Growing Imports from China and India

	Code	Product	RCA, 2005	Share of total exports 2005 (%)	Growth of imports from China and India, 2000–05 (%)	Growth of imports from world, 2000–05 (%)	Imports from China and India to total imports 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	Sulfur 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 and accessories	0.02	0.7	26.9	–7.3	22.2
8	691	Structures and parts of structures, iron	0.38	0.7	20.4	0.7	11.9
9	582	Condensation, polycondensation, and so forth	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 constructions	0.22	0.5	13.5	–5.4	24.0
12	533	Pigments, paints, varnishes, and so on	0.53	0.5	1.3	–5.7	3.7
13	776	Thermionic, cold and photocathode	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	Nonalcoholic beverages, not elsewhere specified	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 and crude	0.37	0.2	21.6	8.4	0.4
19	694	Nails, screws, nuts, bolts, and so on of iron	0.32	0.2	8.7	0.4	34.7
20	635	Wood manufactures, not elsewhere specified	0.61	0.2	9.5	–4.0	24.2

Source: UN Comtrade.

Revealed Comparative Advantage Analysis

The revealed comparative advantage (RCA) analysis performed in chapter 1 follows Vollrath (1991). The measure of RCA proposed by Vollrath is an index that accounts for both exports and imports; it also accounts for 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 (1986).[1] 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 because 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:

$$RCA^{c}_{s,t} = \ln\left(RXA^{c}_{s,t}\right) - \ln\left(RMA^{c}_{s,t}\right), \tag{A.1}$$

where

$$RXA^{c}_{s,t} = \left(X^{c}_{s,t}\right)/\left(X^{c}_{-s,t}\right)/\left(X^{-c}_{s,t}\right)/\left(X^{-c}_{-s,t}\right) \tag{A.2}$$

$$RMA^{c}_{s,t} = \left(M^{c}_{s,t}\right)/\left(M^{c}_{-s,t}\right)/\left(M^{-c}_{s,t}\right)/\left(X^{-c}_{-s,t}\right), \tag{A.3}$$

where $X^{c}_{s,t}$ are exports of country c in sector s at time t, $X^{c}_{-s,t}$ are total exports of country minus exports of good s at time t, $X^{-c}_{s,t}$ is world exports in sector s at time t minus $X^{c}_{s,t}$, and $X^{-c}_{-s,t}$ is total world exports minus $X^{-c}_{s,t}$ and $X^{c}_{-s,t}$. 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 $RCA^{c}_{s,t}$ 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 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, one needs to normalize all $RCA^{c}_{s,t}$ values by their country-year mean. More formally, the measure of RCA used with this report is given by:

$$\hat{RCA}^{c}_{s,t} = RCA^{c}_{s,t} - \sum_{s} \frac{RCA^{c}_{s,t}}{n}, \tag{A.4}$$

where n is the number of sectors.

Note

1. 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.

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APPENDIX B

MENA's Export Growth Analysis

TABLE B.1

Constant Market Share Analysis of MENA Countries' Exports to the European Union, 1995–2006

Country	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, Arab Rep. of	163.5	140.6	–30.5	16.4	34.6	2.5
Iran, Islamic Rep. of	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
Syrian Arab Rep.	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

Source: World Bank staff calculations based on Eurostat data.

Note: Excludes Harmonized System Codes 27, 88, and 89. Calculations are based on average market shares across 1995 and 2006. Export flows are at the eight-digit level of the combined nomenclature.

TABLE B2

Manufacturing trade by stage of production, 2006 (%)

	Algeria (%)	Egypt, Arab Rep. of (%)	Iran, Islamic Rep. of (%)	Jordan (%)	Lebanon[a] (%)	Morocco (%)	Tunisia[b] (%)	Syrian Arab Rep. (%)
Share of manufacturing in merchandise exports	1.0	39.0	7.0	84.0	62.0	64.0	79.0	13.0
Share of manufacturing exports								
Intermediate goods	94.6	80.9	67.0	45.4	59.0	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	38.0	42.0
Capital goods	2.5	1.8	7.5	17.0	18.5	3.3	8.7	1.6
Share of manufacturing in merchandise imports	77.0	44.0	71.0	59.0	57.0	65.0	74.0	55.0
Share of manufacturing imports								
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	13.0	13.6	10.1	11.3	19.8	10.0
Semi-finished goods	35.3	47.9	42.1	43.1	34.3	50.0	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	9.0	6.9	15.2	35.0	11.1	9.2	5.0
Capital goods	33.3	19.2	32.8	26.9	18.8	25.5	19.3	26.9

Source: World Bank staff calculations based on the United Nations Commodity Trade Statistics Database (UN Comtrade).

a. Data are for 2004.
b. Data are for 2005.

TABLE B3

Average share of High Tech Products in Merchandise Trade by Production Stage, 2004–2006 (%)

	Algeria (%)	Egypt, Arab Rep. of (%)	Iran, Islamic Rep. of (%)	Jordan (%)	Lebanon[a] (%)	Morocco (%)	Syrian Arab Rep. (%)	Tunisia[b] (%)	Yemen, Rep. of (%)
High Tech Products as share of merchandise exports									
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
High Tech Products as share of Merchandise imports									
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	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: World Bank staff calculations based on the United Nations Commodity Trade Statistics Database (UN Comtrade).

a. Data are for 2004.
b. Data are for 2005.

TABLE B.4

Key Contributors to Export Growth and Decline at the Intensive Margin

Country	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 (excluding argon)	0.01	290121	Ethylene	1.25
	740400	Waste and scrap copper	1.00	720712	Semifinished products of iron and steel	7.41
	030613	Frozen shrimps and prawns	2.98	720110	Pig iron, not alloyed	–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, Arab Rep. of	080510	Oranges, fresh or dried	0.72	070190	Other potatoes, fresh or chilled	1.98
	701810	Glass beads, imitation pearls	5.13	760110	Aluminum, not alloyed, unwrought	8.62
	620462	Women's or girls' trousers, cotton	8.46	520812	Unbleached cotton, plain weave	3.10
	620342	Men's or boys' trousers, cotton	3.65	520100	Cotton, not carded or combed	–0.39
	760120	Aluminum, alloyed, unwrought	1.48	620520	Men's or boys' shirts, cotton	8.95
	Top 5 contribution to overall effect 21.12%			Top 5 contribution to overall effect 22.20%		
	Main markets: United States, Italy, Saudi Arabia, United Kingdom, Germany (59.75%)			Main markets: United States, United Kingdom, Germany, Italy, France (45.35%)		
Iran, Islamic Rep. of	080250	Pistachios, fresh or dried	0.16	570110	Carpets and other floor coverings	–5.57
	290220	Benzene	–0.42	080250	Pistachios, fresh or dried	0.16
	740311	Copper cathodes	–1.56	720712	Semifinished 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, not alloyed, unwrought	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; Saudi Arabia; Hong Kong, China; China; Italy (71.66%)			Main markets: Germany, Japan, Italy, Thailand, France (58.29%)		
Jordan	611020	Jerseys, pullovers, and similar articles, cotton	9.70	251010	Unground natural calcium phosphates	7.00
	620462	Women's or girls' trousers, cotton	8.46	310420	Potassium chloride	–0.03
	310420	Potassium chloride	–0.03	310530	Diammonium hydrogenorthophosphate	6.67
	711319	Articles of jewelry	5.90	310490	Mineral or chemical fertilizers	–0.29
	280920	Phosphoric acid and polyphosphoric 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: United States, India, Saudi Arabia, Algeria, China (91.60%)			Main markets: Indonesia, Saudi Arabia, India, Italy, Netherlands (42.48%)		

(Table continues on the following pages.)

TABLE B.4 (continued)

Country	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 (%)
Lebanon	720449	Ferrous waste and scrap, iron or steel	–0.32	290122	Propene (propylene)	0.18
	711319	Articles of jewelry	5.90	740400	Waste and scrap, copper	1.00
	710239	Diamonds, nonindustrial	2.09	240110	Tobacco, not stemmed or stripped	1.60
	280920	Phosphoric acid and polyphosphoric acid	2.47	070190	Other potatoes, fresh or chilled	1.98
	490199	Printed books, brochures, leaflets	11.02	710239	Diamonds, nonindustrial	2.09
	Top 5 contribution to overall effect 54.73% Main markets: Switzerland, Turkey, Saudi Arabia, United States, Jordan (72.05%)			Top 5 contribution to overall effect 20.50% Main markets: Saudi Arabia, France, Thailand, Arab Republic of Egypt, United States (50.00%)		
Morocco	620462	Women's or girls' trousers, cotton	8.46	030759	Octopus (excluding live, fresh, or chilled)	9.61
	280920	Phosphoric acid and polyphosphoric acid	2.47	280920	Phosphoric acid and polyphos phoric acid	2.47
	251010	Unground natural calcium phosphates	7.00	620342	Men's or boys' trousers, cotton	3.65
	610910	T-shirts, singlets, and similar articles, cotton	4.68	310530	Diammonium hydrogenorthophosphate	6.67
	070820	Beans, fresh or chilled	–1.20	620640	Women's or girls' blouses and shirts, manmade fibers	13.78
	Top 5 contribution to overall effect 21.34% Main markets: Spain, France, United Kingdom, Belgium, Germany (68.15%)			Top 5 contribution to overall effect 21.56% Main markets: France, Germany, Japan, Italy, United Kingdom (69.44%)		
Syrian Arab Rep.	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 for automatic data processing machines	12.13
	410512	Sheep-or lambskin leather	–2.22	100110	Durum wheat	0.02
	Top 5 contribution to overall effect 60.89% Main markets: Saudi Arabia, Italy, Jordan, Turkey, Spain (78.27%)			Top 5 contribution to overall effect 54.90% Main markets: Italy, Jordan, Saudi Arabia, Morocco, Spain (52.85%)		
Tunisia	620342	Men's or boys' trousers, cotton	3.65	620342	Men's or boys' trousers, cotton	3.65
	854430	Ignition wiring sets	6.99	620640	Women's or girls' blouses and shirts, manmade fibers	13.78
	620462	Women's or girls' trousers, cotton	8.46	620520	Men's or boys' shirts, cotton	8.95
	853650	Electrical switches	6.82	620343	Men's or boys' trousers, synthetic materials	3.30
	621210	Brassieres	16.59	280920	Phosphoric acid	2.47
	Top 5 contribution to overall effect 27.45% Main markets: France, Italy, Germany, Belgium, Spain (83.75%)			Top 5 contribution to overall effect 17.15% Main markets: Germany, France, Luxembourg, Italy, Algeria (67.15%)		

TABLE B.4 (continued)

Country	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 (%)
Yemen, Rep. of	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	Cuttlefish and squid	8.96	760200	Waste and scrap, aluminum	–0.84
	030799	Aquatic invertebrates, not elsewhere specified	–0.65	010420	Live goats	–0.42
	081090	Other fruit, fresh, not elsewhere specified	0.65	740400	Waste and scrap, copper	1.00
	Top 5 contribution to overall effect 72.20% Main markets: Saudi Arabia; Thailand; Hong Kong, China; Spain; Japan (89.47%)			Top 5 contribution to overall effect 46.27% Main markets: Saudi Arabia, United Kingdom, Jordan, The Gambia, Republic of Korea (67.84%)		

Source: UN Comtrade.

TABLE B.5

Key Contributors to Export Growth and Decline at the Extensive Margin

Country	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 steel	–0.32	310280	Mixtures of urea and ammonium nitrate in aqueous or ammoniacal solution	0.07
	281410	Anhydrous ammonia	0.00	180400	Cocoa butter, fat, and oil	–0.11
	720824	Flat-rolled products, iron or nonalloy steel, in coil, hot rolled	2.57	290244	Mixed xylene isomers	1.07
	251020	Ground natural calcium phosphates	1.89	390110	Polyethylene having a specific gravity less than 0.94	0.18
	390120	Polyethylene having a specific gravity of 0.94 or more	0.18	846694	Parts and accessories, not elsewhere specified, for use on machines	1.37
	Top 5 contribution to overall effect 70.30% Main markets: Turkey, Morocco, Netherlands, Germany, India (72.05%)			Top 5 contribution to overall effect 49.84% Main markets: France, Spain, United States, Netherlands, Italy (67.78%)		
Egypt, Arab Rep. of	720824	Flat-rolled products, iron or nonalloy steel, in coil, hot rolled	2.57	252329	Portland cement (excluding white)	0.66
	252310	Cement clinkers	12.62	720241	Ferro-chromium containing by weight	–8.19
	310210	Urea	5.25	721510	Bars and rods of free-cutting steel not further worked than cold formed	0.49

(Table continues on the following pages.)

TABLE B.5 (continued)

Country	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 (%)
	390120	Polyethylene having a specific gravity of 0.94 or more	0.18	841121	Turbo-propellers of a power not exceeding 1,100 kilowatts	0.26
	854430	Ignition wiring sets and other wiring sets	6.99	722830	Bars and rods, alloy steel, other than stainless steel	3.03
	Top 5 contribution to overall effect 30.32%			Top 5 contribution to overall effect 56.20%		
	Main markets: Spain, United Kingdom, United States, Saudi Arabia, Italy (38.45%)			Main markets: Sudan, Saudi Arabia, United States, United Kingdom, Italy (73.91%)		
Iran, Islamic Rep. of	290511	Methanol (methyl alcohol)	–0.75	260111	Nonagglomerated iron ores and concentrates	0.04
	570110	Carpets and other textile floor coverings	–5.57	720610	Ingots, iron or nonalloy steel	–4.43
	290243	p-Xylene	–3.53	291736	Terephthalic acid and its salts	–0.12
	720824	Flat-rolled products, iron or nonalloy steel, in coil, hot rolled	2.57	381710	Mixed alkylbenzenes not elsewhere specified	4.50
	740919	Plate, sheet, and 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, United States, Saudi Arabia, Republic of Korea (55.85%)			Main markets: China, India, Saudi Arabia, Turkey, Italy (78.58%)		
Jordan	310530	Diammonium hydrogenorthophosphate	6.67	290810	Phenol or phenol-alcohol derivative	5.36
	310520	Mineral or chemical fertilizers with nitrogen, phosphorous, and potassium	0.78	283421	Nitrates of potassium	4.81
	610821	Women's or girls' briefs and panties	4.40	610220	Women's or girls' coats and similar articles, cotton	15.72
	310540	Ammonium dihydrogenortho-phosphate	4.74	280130	Fluorine and bromine	1.86
	610343	Men's or boys' trousers and similar articles, synthetic fibers	–4.41	610822	Women's or girls' briefs and panties, manmade fibers	16.98
	Top 5 contribution to overall effect 29.39%			Top 5 contribution to overall effect 35.08%		
	Main markets: United States, Japan, Saudi Arabia, Ethiopia, Israel (57.63%)			Main markets: United States, Saudi Arabia, Arab Republic of Egypt, Republic of Korea, China (57.24%)		
Lebanon	280920	Phosphoric acid	2.47	290110	Acyclic hydrocarbons, saturated	–0.06
	240110	Tobacco, not stemmed or stripped	1.60	850213	Generating sets, diesel or semidiesel	1.57
	050400	Guts, bladders, and stomachs of animals	5.74	283526	Phosphates of calcium, not elsewhere specified	3.53
	852520	Transmission apparatus, for radiotelephony	14.25	844900	Machinery for the manufacture or finishing of felt or nonwovens	1.80

TABLE B.5 (continued)

Country	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 (%)
	392330	Carboys, bottles, flasks, and similar articles	3.30	854460	Electric conductors, for a voltage greater than 1,000 volts	1.63
	Top 5 contribution to overall effect 21.91% Main markets: Jordan, Arab Republic of Egypt, Saudi Arabia, India, United Kingdom (31.18%)			Top 5 contribution to overall effect 28.59% Main markets: Arab Republic of Egypt, Saudi Arabia, Jordan, United States, Italy (62.70%)		
Morocco	854441	Electric conductors, for a voltage no more than 80 volts	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, not elsewhere specified	5.14	721420	Bars and rods, iron or nonalloy steel, hot rolled, with indentations or grooves	6.22
	854129	Transistors, other than photosensitive transistors	8.22	940120	Seats, motor vehicle	14.89
	310540	Ammonium dihydrogenorthophosphate	4.74	930690	Munitions of war and parts thereof and other ammunitions	0.10
	Top 5 contribution to overall effect 41.11% Main markets: Spain; Singapore; China; Hong Kong, China; Italy (54.99%)			Top 5 contribution to overall effect 16.66% Main markets: France, Spain, Algeria, Belgium, Italy (65.0%)		
Syrian Arab Rep.	100110	Durum wheat	0.02	520515	Cotton yarn, with greater than 85% single uncombed	–1.95
	520100	Cotton, not carded or combed	–0.39	310210	Urea	5.25
	251010	Unground natural calcium phosphates	7.00	841112	Turbojets of a thrust exceeding 25 kilowatts	1.36
	610832	Women's or girls' pajamas and nightdresses, manmade fibers	1.97	854459	Electric conductors, for a voltage greater than 80 volts but not exceeding 1,000 volts	2.58
	220210	Waters (including mineral and aerated), with added sugar or sweeteners	0.51	520842	Colored plain cotton weave, with 85% or more cotton	1.36
	Top 5 contribution to overall effect 31.59% Main markets: Jordan, Arab Republic of Egypt, Sudan, Algeria, China (55.38%)			Top 5 contribution to overall effect 34.89% Main markets: Arab Republic of Egypt, Italy, Jordan, Saudi Arabia, Turkey (74.3%)		
Tunisia	854430	Ignition wiring sets and other wiring sets	6.99	870894	Steering wheels, steering columns, and steering boxes	0.85
	721049	Flat-rolled products, iron or nonalloy steel, plated or coated with zinc	2.61	721039	Flat-rolled products, iron or nonalloy steel, plated or coated with zinc electrolytically	–0.29
	870821	Safety seat belts for motor vehicle	1.91	630399	Curtains and interior blinds and curtain or bed valances of textiles	25.77

(Table continues on the following pages.)

TABLE B.5 (continued)

Country	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 (%)
	640340	Footwear, with a metal toe-cap, leather or composition leather	15.42	630493	Furnishing articles, synthetic fibers	43.89
	853710	Boards and panels, including numerical control panels	4.48	030349	Frozen tunas, not elsewhere specified	7.62
	Top 5 contribution to overall effect 18.56% Main markets: France, Italy, United Kingdom, Poland, Spain (55.04%)			Top 5 contribution to overall effect 33.26% Main markets: France, Algeria, Italy, Germany, Belgium (71.08%)		
Yemen, Rep. of	030232	Yellowfin tunas, fresh or chilled	–0.12	070310	Onions and shallots, fresh or chilled	6.84
	030749	Cuttlefish and squid	8.96	030420	Frozen fish fillets	17.17
	410221	Pickled skins of sheep or lambs	–0.03	160414	Prepared or preserved tuna, skipjack, and Atlantic bonito	0.25
	030379	Frozen fish, not elsewhere specified	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 maize	0.84
	Top 5 contribution to overall effect 58.48% Main markets: Italy, France, Saudi Arabia, Paraguay, Germany (57.31%)			Top 5 contribution to overall effect 44.45% Main markets: Saudi Arabia, Arab Republic of Egypt, Ethiopia, Oman, France (78.7%)		

Source: UN Comtrade.

APPENDIX C

MENA's Response to Increased Competition in the Apparel Markets

Since the 2005 removal of the Agreement on Textiles and Clothing, also known as the Multifiber Arrangement, trade in apparel has become practically free. Apparel represents a very high share of all textile and clothing exports of countries in the Middle East and North Africa (MENA) to U.S. and European Union (EU) markets (table C.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 share of 75 to 80 percent. Both countries have significantly expanded their exports to U.S. and EU markets since 2005. China almost doubled its exports to the European Union and almost tripled those to the United States. 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

TABLE C.1

Share of Apparel in Total Textile and Clothing Exports to the United States and the European Union, 2004 and 2007

Country or region	United States (%)		Country or region	European Union (%)	
	2004	2007		2004	2007
Egypt, Arab Rep. of	75	80	Egypt, Arab Rep. of	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

Sources: Eurostat and Office of Textiles and Apparel, U.S. International Trade Administration (OTEXA).

to the United States increased from US$1.5 billion in 2004 to almost US$2 billion in 2007 (table C.2). An increase was also recorded in the EU markets (from €5.4 billion to €5.6 billion). In contrast, apparel exports from the Gulf Cooperation Council (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 (US$203 million and €114 billion, respectively, to the United States and the European Union).

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, apparel from the MENA countries is 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 U.S. market (table C.3).

In values, however, they recorded increases in 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 U.S. and EU markets (except in the Arab Republic of Egypt, which suffered a slight decline in the EU market) (table C.4). For Morocco and Tunisia, prices more

TABLE C.2

Value of U.S. and EU Imports, 2004–07

Country	United States (US$ million)				European Union (€ million)			
	2004	2005	2006	2007	2004	2005	2006	2007
Labor-abundant countries	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, Arab Rep. of	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
Syrian Arab Rep.	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
Gulf Cooperation Council countries	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

Sources: Eurostat and OTEXA.

TABLE C.3

Unit Price of Apparel Products in the United States, 2004–07

Country or region	Price (US$)				Change, 2007–04 (%)
	2004	2005	2006	2007	
Egypt, Arab Rep. of	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

Sources: Eurostat and OTEXA.

TABLE C.4

Price per Kilogram of Apparel Products in European Union, 2004–07

Country	Price (€)				Change, 2007–04 (%)
	2004	2005	2006	2007	
Egypt, Arab Rep. of	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

Sources: Eurostat and OTEXA.

TABLE C.5

Changes in Volume and Unit Price of Two Selected Fashion Items, 2005–07

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

Sources: Eurostat and OTEXA.

than doubled in the U.S. market. The prices of apparel from China and India either remained stable or dropped (China in U.S. market).

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.[1] Coat prices increased in almost all markets between 2005 and 2007, but the price increase for coats from Morocco and Tunisia was much higher than that for coats from China and India (table C.5).

Note

1. Unit prices are not a perfect indicator of quality, but it is often reasonable to assume that higher-quality products are more expensive than are lower-quality products. The literature often infers the same relationship between price and quality of goods (Hallack 2004; Schott 2004).

APPENDIX D

The Regulatory Framework of Foreign Direct Investment in MENA Countries

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

Bilateral Investment Treaties

Bilateral investment 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 Jordan's and Tunisia's have not yet entered into force. Ten MENA countries have signed a BIT with India, but only five of these treaties have entered into force (table D.1).

Double Taxation Treaties

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 about 375 DDTs, except Djibouti, Libya, and the Republic of Yemen. China and India have signed 94 and 67 DTTs, respectively. Few MENA countries have signed a DTT with China and India (table D.2).

TABLE D.1

Bilateral Investment Treaties as of June 2007

Country	Total		With China		With India	
	Number signed	Number in force	Year signed	Year entered into force	Year signed	Year entered into force
Algeria	36	20	1996	2002		
Bahrain	20	11	1999	2000	2004	Not yet in force
Djibouti	6	1	2003	Unknown	2003	Not yet in force
Egypt, Arab Rep. of	78	54	1994	1996	1997	2000
Iran, Islamic Rep. of	56	43	2000	2005		
Jordan	39	29	2001	Unknown		
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	Not yet in force
Syrian Arab Rep.	32	24	1996	2001		
Tunisia	51	33	2004	Unknown		
United Arab Emirates	31	23	1993	1994		
Yemen, Rep. of		17	1998	2002	2002	Not yet in force

Source: Country-specific lists of BITs of the United Nations Conference on Trade and Development (UNCTAD).

Note: The table provides details of BITs for 177 economies concluded as of June 1, 2007.

TABLE D.2

Double Taxation Treaties as of June 2007

Country	Total signed	Date signed with China	Date signed with India
Algeria	29		
Bahrain	11		
Djibouti	0		
Egypt, Arab Rep. of	38	1997	1969
Iran, Islamic Rep. of	30		
Jordan	18		
Kuwait	34		
Lebanon	32		
Libya	3		1981
Morocco	34		1998
Oman	22		
Qatar	22		
Saudi Arabia	13		
Syrian Arab Rep.	28		
Tunisia	39	2004	
United Arab Emirates	43	1993	
Yemen, Rep. of	9	1998	2002

Source: Country-specific lists of DTTs of UNCTAD.

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. Although in terms of the business environment, MENA economies occupy a middle position in the worldwide ranking, a recent study shows that they have lost significant ground in reducing impediments to business development (World Bank 2005b). Table D.3 shows the restrictiveness of the regulatory framework for FDI in several MENA countries, on the basis of the following 10 criteria:[1]

- *Limitations on the entry of FDI.* This criterion includes discriminatory screening and approval procedures for FDI. Investment screening and approval procedures are applied in the investment laws of all MENA countries except Morocco and the Republic of Yemen.
- *Limitations on foreign purchase of domestic shares.* This criterion 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 such restrictions.
- *International Monetary Fund 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 the Syrian Arab Republic, have obtained this status.
- *Restrictions on transfers abroad of the proceeds of the liquidation of FDI.* These include restrictions on the permission for foreign exchange accounts, domiciliation of imports, or surrender of exports. Thirteen MENA countries report that they allow repatriation of capital without restriction, whereas Algeria, Libya, and the Republic of Yemen operate restrictions of varying depth. China and India also operate restrictions on repatriation of capital.
- *Foreign exchange account permitted.* This criterion means that nonresidents are allowed to hold accounts in the national currency or in foreign currency. Only Qatar restricts this ability.
- *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.

TABLE D.3

Regulatory Framework for FDI, 2007

Criteria	Algeria	Bahrain	Djibouti	Egypt, Arab Rep. of	Jordan	Kuwait	Lebanon
1. All sector limitations on the entry of FDI	R	R	R	R	R	R	R
2. Limitations on foreign purchase of domestic shares		R				R	R
3. International Monetary Fund article VIII status	Y	Y	Y	Y	Y	Y	Y
4. Liquidation proceeds transfer abroad	R						
5. Foreign exchange account permitted	Y	Y	Y	Y	Y	Y	Y
6. Surrender requirements for export	R						
7. Domiciliation requirement for imports	R	R					
8. Acquisition of real estate for FDI purposes					R	R	R
9. Performance requirements on FDI	R					R	
10. FDI-targeted tax and other incentives	Y	Y	Y	Y	Y	N	Y

Source: IMF 2007a.

Note: R = restricted; Y = yes; N = no; — not available

- *Domiciliation requirement for imports.* This restriction imposes an obligation to domicile the transactions with a specified (usually domestic) financial institution. Four MENA countries request that transactions are domiciled with a domestic financial institution (Algeria, Bahrain, Morocco, and Tunisia), as well as China and India.
- *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.* These requirements include the following: investors must export a certain percentage of output or have access to foreign exchange only in relation to their exports; nationals must own shares or the share of foreign equity is reduced over time; conditions on permission to invest, including location in specific sectors, geographic 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 research and development. Saudi Arabia requires a percentage of the 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 United Arab Emirates is 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.

Libya	Morocco	Oman	Qatar	Saudi Arabia	Syrian Arab Rep.	Tunisia	United Arab Emirates	Yemen, Rep. of	China	India
R		R	R	R	R	R	R		R	R
n/a	R	R	R	R	R	R	R		R	R
Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
R								R	R	R
Y	Y	Y	N	Y	R	Y	Y	Y	Y	Y
	R				R	R			R	R
—	R				—	R		—	—	—
R	R	R	R	R	R		R		R	
				R	R	R	R		R	R
Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y

- *Incentives policies.* MENA countries use investment incentives to attract FDI. Foreigners 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 D.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 the Arab Republic of Egypt, the Islamic Republic of Iran, and Syria).

Restrictions on doing business are still important but have improved. The number of procedures for starting a business and dealing with 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 that for China and India.

The table also portrays the perspective of foreign and domestic enterprises operating in MENA regarding the transparency of government policy making 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

TABLE D.4

Data Relative to the Attractiveness for FDI, 2007

Indicator	Algeria	Bahrain	Djibouti	Egypt, Arab Rep. of	Iran, Islamic Rep. of	Jordan	Kuwait	Lebanon	Libya
Investment									
Risk Index[a]	8.5	11.5		6.5	6.5	10.0	11.5	8.5	10.0
Contract viability	2.5	4.0		2.5	2.0	3.5	3.5	2.5	3.5
Profit repatriation	3.0	4.0		2.0	2.5	3.5	4.0	3.0	3.5
Payment delays	3.0	3.5		2.0	2.0	3.0	4.0	3.0	3.0
Doing business									
Starting business (number of procedures)	14.0		11.0	7.0	8.0	10.0	13.0	6.0	
Dealing with licenses (number of procedures)	22.0		14.0	28.0	19.0	18.0	25.0	20.0	
Registering property (number of procedures)	14.0		7.0	7.0	9.0	8.0	8.0	8.0	
Investor Protection Index[b]	5.3		2.3	5.0	3.0	4.3	6.3	5.0	
Closing business (cost in % of estate)	7.0		18.0	22.0	9.0	9.0	1.0	22.0	
Transparency of government policy making[c]	90.0	33.0		92.0		57.0	52.0		115.0
Favoritism in decision of government officials[d]	30.0	35.0		50.0		38.0	65.0		87.0
Corruption Perceptions Index[e]	3.0	5.0	2.9	2.9	2.5	4.7	4.3	3.0	2.5
Global credit rating[f]	54.7	70.3	22.2	50.7	35.7	45.8	77.7	28.9	49.0

Sources: Various sources as listed in the notes.

a. From the Political Risk Services Group (http://www.prsgroup.com). 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 ranges from 1 (highest corruption) to 10. f. International Investor 2008, ranges from 0 (highest risk of default) to 100.

Egypt, Libya, and Syria, MENA countries do not tend to present favoritism in the decision of a government official—less so 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 are 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. A huge difference exists between Gulf Cooperation Council countries, which present less

Morocco	Oman	Qatar	Saudi Arabia	Syrian Arab Rep.	Tunisia	United Arab Emirates	Yemen, Rep. of	MENA	China	India
9.5	11.5	10.0	11.0	5.0	8.5	11.5	8.0	9.0	7.0	8.5
3.5	4.0	3.5	3.5	2.0	3.0	3.5	2.5	3.0	2.0	3.5
3.0	3.5	3.5	3.5	1.5	2.5	4.0	3.5	3.3	2.5	2.5
3.0	4.0	3.0	4.0	1.5	3.0	4.0	2.0	3.1	2.5	2.5
6.0	9.0		7.0	13.0	20.0	11.0	12.0	9.8	13.0	13.0
19.0	16.0		18.0	21.0	5.0	21.0	13.0	19.6	37.0	20.0
8.0	2.0		4.0	4.0	3.3	3.0	6.0	6.6	4.0	6.0
3.0	5.3		5.7	4.3	7.0	4.3	4.0	4.0	5.0	6.0
18.0	4.0		22.0	9.0	10.0	30.0	8.0	13.3	22.0	9.0
49.0	35.0	36.0	54.0	112.0	13.0	20.0		58.0	88.0	45.0
39.0	12.0	16.0	25.0	77.0	11.0	21.0		39.0	71.0	54.0
3.5	4.7	6.0	3.4	2.4	4.2	5.7	2.5	4.3	3.5	3.5
55.1	70.5	78.2	72.8	29.6	61.3	80.3	32.8	53.9	76.5	62.7

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 Algeria, Morocco, and Tunisia, are not far from India.

Note

1. Table D.3 updates and completes a work done by the Organisation for Economic Co-operation and Development (OECD) in 2005 concerning the regulatory framework in MENA. Seven updated OECD criteria are used here, and three more are added (OECD 2006a).

THE WORLD BANK

APPENDIX E

Global Trade Analysis Project Methodology and Simulations Results

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

A baseline for the period 2005 to 2020 was constructed to provide a benchmark against which the effects of higher growth rates of output might be assessed. Economywide rates of technical change were used to ensure consistency between the exogenous variable forecasts and the GTAP baseline forecasts of gross domestic product. 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, and skilled and unskilled labor, as well as, in some sectors, a natural resource factor are included in the analysis.

In the model, economywide 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 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 database following the methodology developed by Ianchovichina (2004). The 57 sectors of the GTAP database were aggregated into 26 sectors on the basis of their importance in China, India, and the Middle East and North Africa (MENA).

The simulations are discussed in chapter 5. Tables E.1 to E.6 provide additional data and background results.

TABLE E.1

Baseline Growth Rates, 2004

Country or region	Annual change (%)				
	Population	Unskilled labor	Skilled labor	Capital	Gross domestic product
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
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
Japan	–0.2	0.2	–0.7	2.5	1.6
Korea, Rep. of	0.3	2.0	5.8	4.9	4.7
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
Argentina and Brazil	1.0	0.9	3.6	3.1	3.6
Mexico	1.4	2.7	4.6	3.3	3.8
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
Algeria	1.5	2.2	4.2	2.5	2.7
Egypt, Arab Rep. of	1.4	1.7	2.2	3.6	4.7
Iran, Islamic Rep. of	1.4	1.5	4.2	6.7	5.0
Jordan	2.0	2.6	3.1	4.5	4.5
Lebanon	1.0	1.4	1.9	2.8	3.1
Morocco	1.3	2.0	2.5	4.4	3.9
Syrian Arab Rep.	1.8	2.8	4.4	2.6	4.4
Tunisia	1.2	1.9	4.5	4.6	4.6

Source: World Bank, Center for Global Trade Analysis.

TABLE E.2

Effect 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 (%)		Terms of trade (US$ million)	
	(US$ million)	(%)	(US$ million)	(%)	Growth	Growth and quality	Growth	Growth and 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
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
Japan	–1,177	0.0	6,653	0.1	3.1	5.5	2,116	6,321
Korea, Rep. of	4,750	0.4	11,586	1.0	3.5	5.7	–112	4,310
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
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
Mexico	1,802	0.2	5,231	0.5	0.9	2.7	94	724
EU-25[a] plus European Free Trade Association	–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	1,174
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
Algeria	2,871	1.3	3,206	1.5	–0.5	–0.6	2,435	2,695
Egypt, Arab Rep. of	363	0.3	596	0.5	0.2	0.6	297	543
Iran, Islamic Rep. of	2,460	0.9	3,239	1.2	0.2	1.7	2,119	2,856
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
Morocco	50	0.1	196	0.3	1.7	1.6	–18	144
Syrian Arab Rep.	493	0.5	651	0.6	2.2	2.8	241	461
Tunisia	–57	–0.1	–58	–0.1	–0.5	–1.5	–31	33
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.

a. The 25 member countries of the European Union prior to January 1, 2007.

TABLE E.3

Change in Exports Attributable to High Growth in China and India Relative to Baseline

Product	Change (%)								
	Egypt, Arab Rep. of	Morocco	Tunisia	Algeria	Other MENA	Jordan	Lebanon	Syrian Arab Rep.	Iran, Islamic Rep. of
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 E.4

Change in Output Attributable to High Growth in China and India Relative to Baseline

Product	Change (%)								
	Egypt, Arab Rep. of	Morocco	Tunisia	Algeria	Other MENA	Jordan	Lebanon	Syrian Arab Rep.	Iran, Islamic Rep. of
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.

TABLE E.5

Change in Exports Attributable to High Growth, Quality, and Variety Improvements in China and India Relative to Baseline

Product	Change (%)								
	Egypt, Arab Rep. of	Morocco	Tunisia	Algeria	Other MENA	Jordan	Lebanon	Syrian Arab Rep.	Iran, Islamic Rep. of
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 E.6

Change in Output Attributable to High Growth, Quality, and Variety Improvement in China and India Relative to Baseline

Good	Change (%)								
	Egypt, Arab Rep. of	Morocco	Tunisia	Algeria	Other MENA	Jordan	Lebanon	Syrian Arab Rep.	Iran, Islamic Rep. of
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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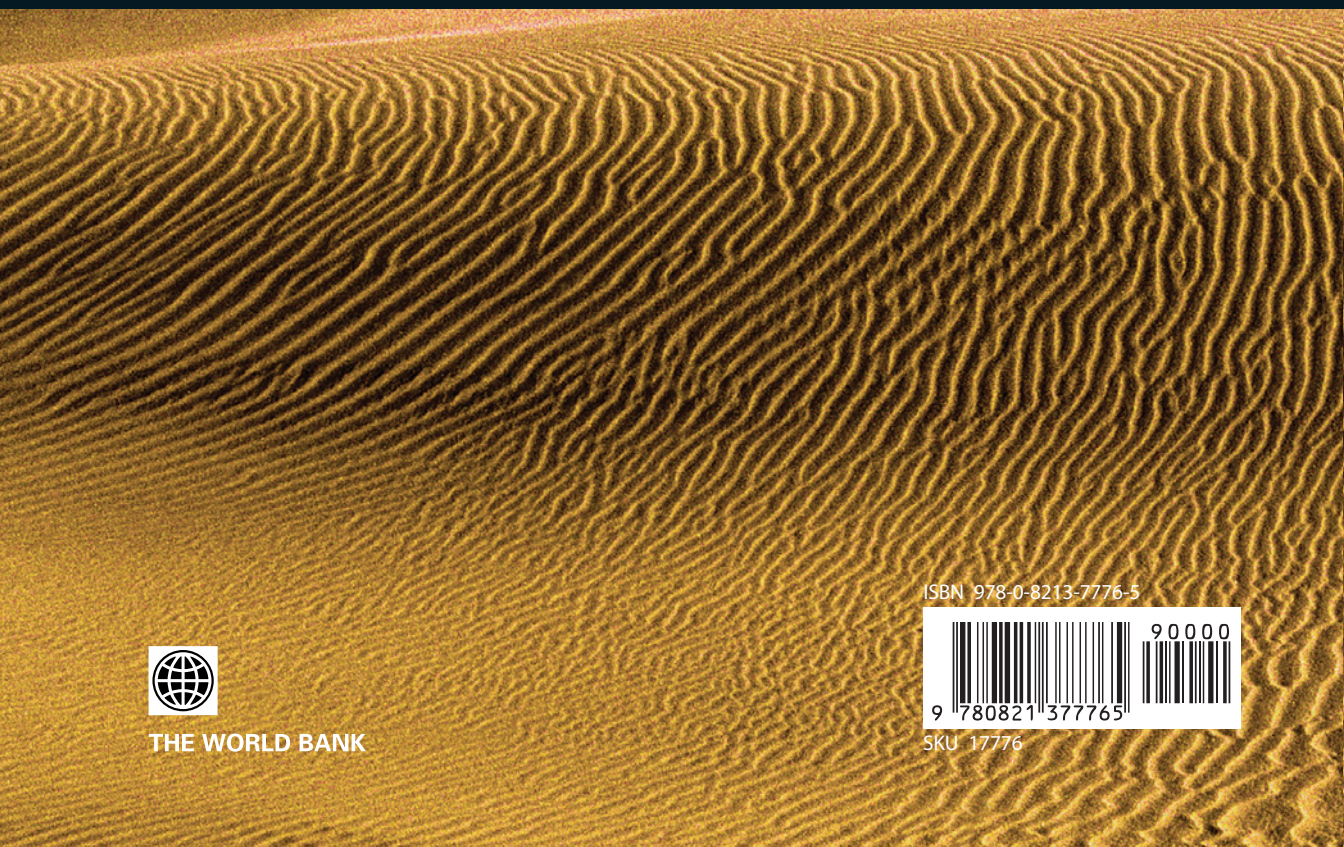
The spectacular economic rise of China and India over the past two decades has created new trade, investment, and political relationships with the countries of the Middle East and North Africa (MENA). Indeed, Dubai has become the new Silk Road—the intersection where people, capital, and ideas meet. And while the financial crisis that hit global markets in 2008 has placed downward pressure on growth, these new relationships are likely to deepen in the coming years.

Strengthening China's and India's Trade and Investment Ties to the Middle East and North Africa highlights the challenges and opportunities facing the countries of the Middle East and North Africa as they expand and deepen their ties to the Chinese and Indian economies. For MENA oil-producing countries, rising demand for energy from these two countries will boost revenues from oil and raise difficult choices associated with their management. For the labor-abundant, non-oil-producing countries, competition with China and India will spotlight the need for policy measures to increase productivity. Meeting these challenges may require the kind of culture of growth and broader institutional changes seen in China and India over the last two decades. The book suggests the need for a pragmatic reform agenda that can accelerate productivity, improve competitiveness, and reduce unemployment. It provides national and regional policy makers with a number of recommendations based upon well-researched analysis and it identifies priorities for further analysis and policy intervention.



ISBN 978-0-8213-7776-5

SKU 17776

THE WORLD BANK