

Anatomy of nonoil export growth in the Middle East and North Africa region

Elena Ianchovichina, Julien Gourdon and Hiau Looi Kee¹

1. Introduction

MENA felt the impact of the financial and economic crisis to a much lesser extent than developed economies and emerging markets outside Asia, but the economic recovery in MENA has also lacked vigor, and more recently recovery has been interrupted by “Arab Spring” uprisings. Revolts have occurred in many countries with different socio-economic and institutional settings, and promises for wage increases and state-sponsored benefits have not appeased populations. People have insisted on changing the political systems to ensure voice and accountability.

MENA’s political unrest was triggered by frustration and deep feelings of unfairness and humiliation which in turn reflect serious problems, specifically corruption which has reached a scale not seen before and lack of level playing field in many aspects of life, including access to resources, services and information. These issues can be seen both as triggers of current events and obstacles to inclusive growth.

The region also faces serious structural issues limiting growth and employment creation. Prior to the “Arab spring” uprisings, MENA was expected to return to growth rates observed in the first half of 2000s, but growth rates in the range of 4.8 percent are not high enough to address the key challenges facing the region. These include high unemployment rates – especially for young people, low labor force participation rates – notably for women, one of the world’s lowest formal employment rates, and the highest population and labor force growth rates among middle-income economies. Nonoil growth needs to increase and push overall growth above 6 percent per year in order to reduce unemployment and increase participation rates to global norms.

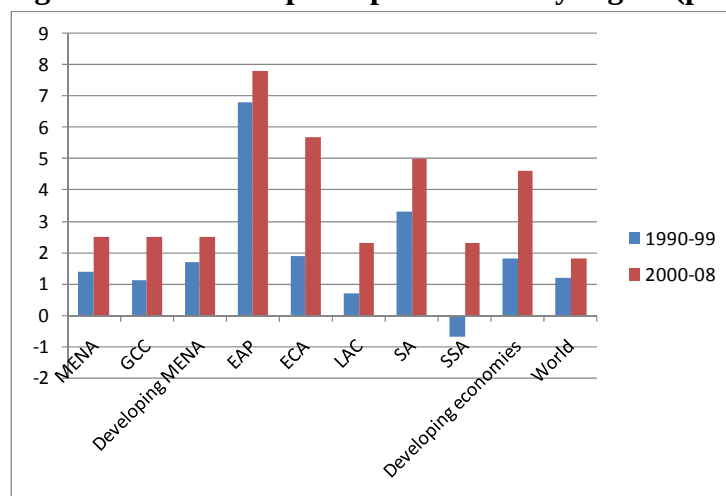
In the last ten years MENA’s growth accelerated relative to the previous decade in response to intensified efforts in many countries to bolster their private sectors and diversify their sources of growth. Governments improved macroeconomic management, simplified business regulations, reduced restrictions to trade and investment, and opened up their financial sectors. Indeed, the average number of reforms in MENA has steadily increased during the last 5 years.

Achievements related to external barriers to trade however have been more limited, and per capita growth in developing MENA has been modest. Governments have relied frequently on “positive list” trade agreements which liberalize trade for specific “listed” products and grant a

¹ Elena Ianchovichina is Lead Economist in the Chief Economist Office of the Middle East and North Africa region, World Bank, elanchovichina@worldbank.org. Hiau Looi Kee is Senior Economist in the International Trade Research Group, Development Economics, World Bank, hlkee@worldbank.org. Julien Gourdon is Consultant in the Social and Economic Development Group, Middle East and North Africa region, World Bank, jgourdon@worldbank.org.

tariff preference to the signatories of these agreements, and by construction do not open trade in goods produced domestically.² Annual per capita growth of developing MENA countries advanced on average only modestly in the period between 2000 and 2008 and averaged just 2.5 percent per annum – a rate that compares poorly with the mean of 4.6 percent for the developing world (Figure 1).

Figure 1. Growth of per capita income by region (percent)



Source: World Bank WDI.

The capital-intensive oil sector has been and remains the primary vehicle for revenue and wealth creation for the oil exporters³ in the region, while the spillover effects to the oil importing countries in the region and beyond have been significant. Governments in oil exporting countries have relied on oil revenues to provide public services and infrastructure, and budgetary support in times of crisis, and some – especially the GCC countries – have used their oil wealth to pursue state-led economic diversification strategies. MENA oil importers also benefitted from the oil wealth as they supplied labor to the oil-rich MENA economies and absorbed investments coming from these countries.

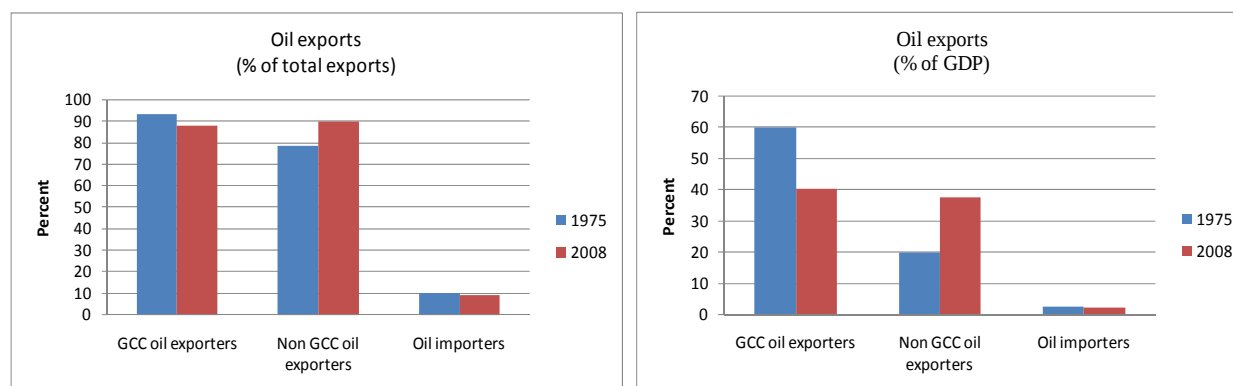
Going forward the outlook for oil remains promising, but there is significant uncertainty in the projections. There is a consensus that crude oil prices will remain high in the next decade due to rapid demand growth in developing countries, declining production from mature fields and higher costs for new production in remote areas and unstable regions. Indeed, the International Energy Agency (IEA 2008) announced that “the era of cheap oil is over”. China and India are

² For more information see Hoekman and Sekkat (2009).

³ For ease of exposition and analysis, the paper relies consistently on the following country typology in which MENA countries are grouped into three categories - the GCC oil exporters, the developing oil exporters and the oil importers. The GCC oil exporters are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirate (UAE). Developing oil exporters are Algeria, Iran, Iraq, Libya, Syria, and Yemen. The oil importers include countries with strong GCC links such as Djibouti, Jordan and Lebanon, and those with strong EU links such as Egypt, Morocco and Tunisia.

expected to account for just over half of the increase in global primary energy demand between 2006 and 2030. However, climate change and policies to mitigate green house gas emissions could push energy prices lower by 2030, and increase demand for low-carbon bio-fuels (IEA 2008). Not surprisingly, a number of MENA oil exporters are actively engaged in energy diversification through the adoption of an aggressive renewable energy exploitation plans based on untapped sources, innovative technology, use of private capital and energy trading.

Figure 2. MENA's oil dependence



Source: World Bank, WDI. Note: Non-GCC oil exporters are the developing oil exporters.

With the benefits from oil however come serious risks as MENA remains uncomfortably dependent on the capital-intensive oil sector. In 2008, 55 percent of MENA's population lived in MENA's oil exporting countries, oil accounted for nearly 90 percent of these countries' exports (Figure 2), and nearly 30 percent of these countries' GDP. In 2007 twenty-two countries received at least 90 percent of their merchandise export earnings from commodities,⁴ and approximately one third of them were MENA countries. Dependence on oil carries serious risks to growth sustainability. Some of the risks of dependence are well-understood and include volatility, Dutch disease, environmental degradation, political instability and conflict, and institutional weakness and corruption. Other risks are less obvious and have to do with a mismatch between the economy's endowment base and its endowment use, and in the future, the threat of viable alternatives to oil. The latter should also not be discounted just because at present Asia has a tremendous appetite for commodities. Technological advances would likely offer a low-carbon emitting alternative to fossil fuels in the future.

Some MENA oil exporters have been taking steps to minimize their potential risks and enhance the potential benefits of oil-driven growth. The GCC countries, in particular, have followed prudent macroeconomic policies and management of oil revenues, and accumulated large savings in the form of reserves and sovereign wealth funds. Indeed, during the period between 1997 and 2007, the group of GCC countries became the fourth largest exporter of capital after

⁴ Source: Mitchell and Aldaz-Carroll (2010).

China, Germany and Japan. Over the years, GCC oil exporters have used their sovereign oil wealth funds to finance infrastructure, technology and education, as well as to acquire different types of foreign investments in an effort to diversify their domestic and foreign sources of revenue. The UAE's service-driven model of economic diversification and Saudi Arabia's model of developing its oil-based petrochemical industry are two widely cited examples of diversification success stories. And increasingly, the oil wealth of GCC and other oil exporters is reaching other countries in the region and beyond through FDI and remittances.

However, the labor-abundant developing oil exporters have been far less successful than the labor-importing GCC countries in dealing with some of the pitfalls of oil dependence. These countries suffer from weak institutions, conflicts, macroeconomic volatility, and Dutch disease. The latter has led to increases in the prices of nontradeables relative to tradeables, making the tradeable sector less competitive internationally, and exacerbating the dependence on oil exports. Between 1975 and 2008 oil exports grew in importance as a source of export revenue and growth in the developing oil exporting countries (Figure 2). By contrast, during the same period oil exports declined in importance in the GCC countries.

GCC oil exporters improved their competitiveness as they implemented successfully prudent macroeconomic and structural reforms. Real exchange rate overvaluation became much less of a problem in most GCC countries as they opened labor and goods markets and blocked two important channels through which "Dutch" disease operates. Real exchange rate overvaluation however remains a problem in most developing oil exporters.⁵ This is unfortunate because these countries are labor abundant and need rapid job growth to accommodate the second fastest growing labor force in the world after Sub-Saharan Africa. As the oil industry is not labor intensive, continued reliance on oil will not address developing oil exporters' major issue – employment creation, and will only exacerbate the current situation.

Dutch disease has also become a threat to those MENA oil importers receiving large remittances and finance from the GCC markets. Young people in oil importing countries, especially those with GCC links, prefer not to work in their home countries due to good prospects of finding a high-paying job in the GCC countries and elsewhere. This has increased wages for some occupations in the oil importing countries. The oil boom in 2000s also triggered an increase in investment flows from the GCC and other developing oil exporters into the oil importing countries in the region. The magnitude of these flows was boosted perhaps because of an increase in "home-bias," or preference to retain oil wealth in the region after 2001 on concerns about potential restrictions on MENA investments in other parts of the world.⁶ Much of this investment has gone into the nontradeable sectors, notably real estate, and has been less likely to help firms boost productivity or get access to new technologies and integrate into global

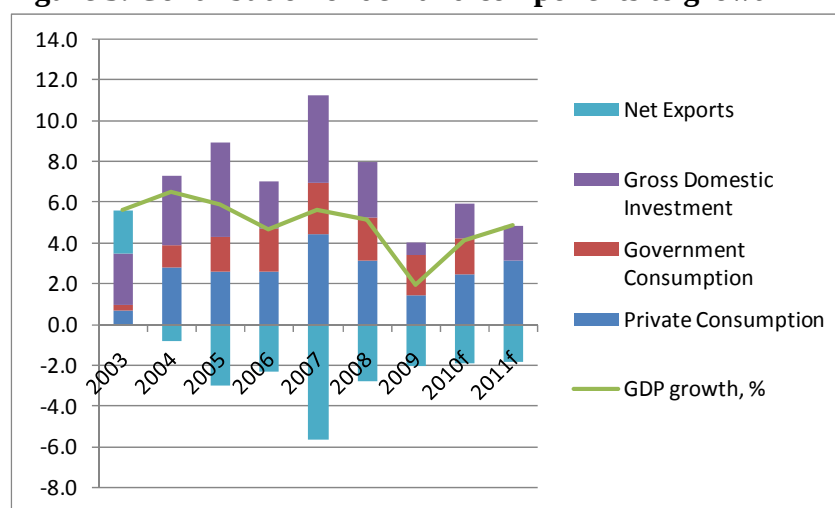
⁵ Yemen is a special case which reflects dwindling oil reserves in a country that has not adjusted its aggregate demand.

⁶ See for detail Noland and Pack (2008).

production networks than investment derived from a more diverse set of countries. Indeed, net exports contributed little to growth in MENA in the past decade (Figure 3), while the contribution of gross exports was comparable in size to the contribution of the government sector.

Given the imperative to address employment challenges, this paper looks at non-oil export growth trends and the obstacles facing MENA's nonoil export-oriented firms in the context of the challenging, post-crisis global economic environment. The analysis is structured around three main questions. How did nonoil exports evolve in the past decade? What are the major constraints to MENA's nonoil export growth? What has been done to address the constraint and how can countries move forward given the new environment? The answers to these questions vary by country, although common messages emerge for the three major types of MENA countries – the GCC, developing oil exporters and oil importers. The paper builds a comprehensive picture of nonoil export growth by covering both services and merchandise trade, and presenting a complete set of estimates of overall protection, including tariff and nontariff barriers, by country in MENA and by region for the rest of the world.

Figure 3. Contribution of demand components to growth in MENA



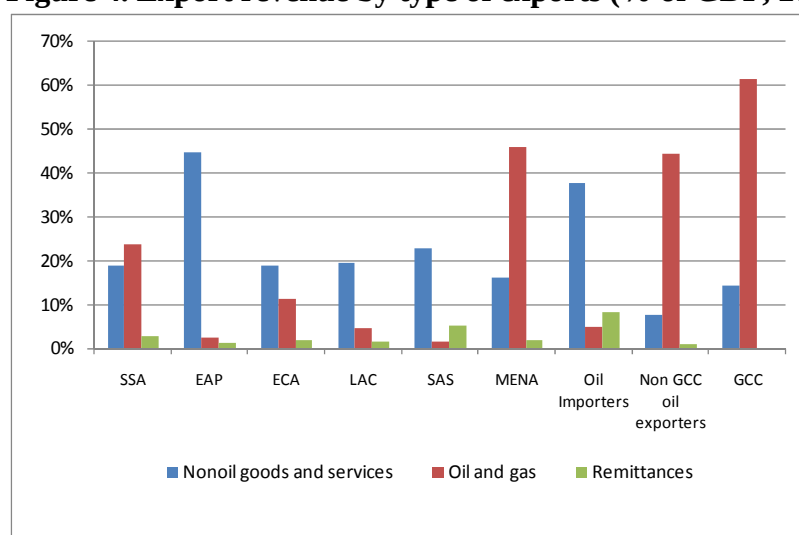
Source: Authors' estimates based on World Bank data and projections for 2010 and 2011.

The analysis is guided by a diagnostic framework which evaluates the relative importance of factors affecting returns to investment and cost of financing investments in nonoil export-oriented activities. On the rate of return side, these include factors such as market access, infrastructure, human capital, technology, policy and institutional environment, information and coordination issues. On the cost of capital side, these include access to domestic and foreign savings, and financial intermediation issues. The paper does not discuss all the factors in depth, but focuses on those that are likely to be of special concern for non-oil export growth. Furthermore, due to space considerations some important topics such as labor market issues and governance are not discussed in depth here.

2. How did nonoil exports evolve during the past decade?

Exports of non-oil goods and services play a much smaller role in MENA than in other regions. In 2008, MENA's share of exports of non-oil goods and services in GDP was just 16 percent compared to 44 percent in East Asia and 22 percent in South Asia, and lower even compared to the shares of LAC and SSA (Figure 4). However, the regional average hides big differences in the contribution of non-oil exports of goods and services within MENA – in particular, between oil importing and oil exporting countries. In the oil importing countries, non-oil exports of goods and services accounted for 38 percent of GDP – a ratio slightly lower only than East Asia's, yet they are insignificant as a share of total output in the GCC countries, and especially in the developing oil exporters. Furthermore, the temporary movement of people to deliver services abroad⁷ is of particular importance in oil importing countries where remittances account for a high share of income.

Figure 4. Export revenue by type of exports (% of GDP, 2008)



Data source: Comtrade for goods, UN Services Trade Statistics for services, and World Bank for remittances.

The analysis can be conducted more carefully by comparing the performance of MENA countries with their estimated potential to export nonoil goods and services. This export potential is estimated with the help of a model that conditions per capita exports of nonoil goods and services on per capita natural resource endowments, measured by the value of resource-based exports as a share of population. For a cross-section of 71 middle-income countries including 15 MENA countries for which data were available for the ten year period between 1998 and 2007,⁸

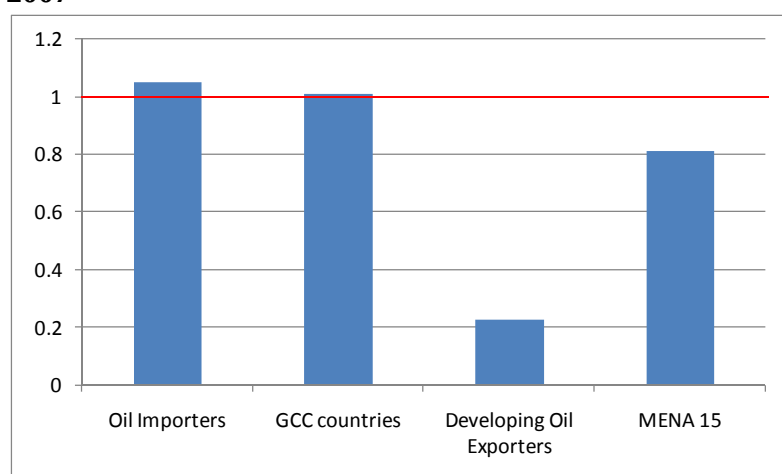
⁷ This is part of Mode 4 of trade in services. Mode 1 refers to cross-border trade, consumption abroad as Mode 2, and establishment abroad is Mode 3.

⁸ The sample includes all middle income countries with per capita income lower than US\$11,456 and greater than US\$935 in 2007, except for small economies with population less than 1 million. It also includes GCC countries and

the results indicate a strong positive association of per capita exports of nonoil goods and services with income per capita which controls for skills, technology and institutional endowments indicative of the capacity to export; and a negative association with per capita natural resource exports which tend to be associated with rents that discourage non-natural resource exports.

Nonoil exports of goods and services of the oil importers and the GCC countries are found to be at potential, while the situation for the developing oil exporters is significantly weaker than for the other two groups (Figure 5). Developing oil exporters' non-oil exports are, on average, only one fifth of predicted levels. The weak performance of this group pulls down the overall MENA average to 80 percent of predicted levels. The two middle-income countries with weakest export performance among the 71 middle-income countries in the sample are Algeria and Iran, while those with strong performance include UAE, Bahrain, Jordan, Tunisia and Morocco (Figure 6). The rest of the fifteen MENA countries appear to be underperforming relative to their predicted potential.

Figure 5. MENA underperformed relative to its nonoil export potential in the period 1998-2007



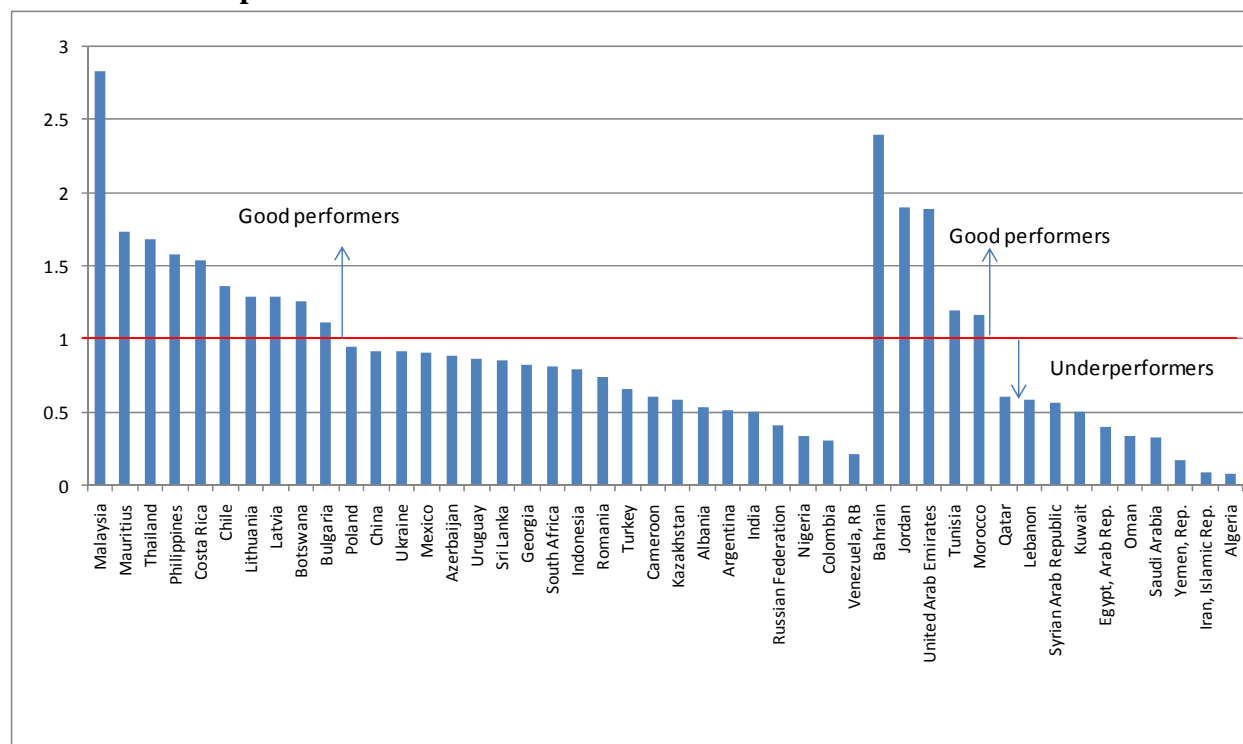
Source: Authors' estimation of export potential is based on the following estimated regression: $PCNOX = -181.09 + 0.2 * PCGDPPPP - 0.185 * PCNatRes$, sample size is 71, Adj R²=0.54, where PCNOX stands for per capita exports of nonoil goods and services, PCGDPPPP is the value of the PPP GDP in per capita US\$, PCNatRes is the value of per capita resource-based exports in US\$. The data has been adjusted for re-exports.

Other studies explore MENA's potential to export nonoil merchandise goods only, and come up with the finding that overall MENA underexports such products. Using cross-section data for the period 2005-09, Behar and Freund (2010) find that the typical MENA country exports around 30 percent of its potential, conditioning on size distance and other covariates. Miniesy and Nugent

Yemen that are not middle-income countries, but belong to MENA. The group of GCC countries includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. Developing oil exporters refer to Algeria, Iran, Syria and Yemen, while oil importers include Lebanon, Jordan, Egypt, Morocco and Tunisia.

(2002) also find that the typical MENA country exports only 30-36 percent of its potential. Similarly, Bhattacharya and Wolde (2010) estimate that the average MENA country exports 30 percent of potential. These results suggests that overall MENA underexports nonoil merchandise goods, but the degree to which it underexports declines after exports of services are included in the analysis. The econometric results above suggest that the typical MENA country exports around 80 percent of its potential when both nonoil goods and services exports are considered.

Figure 6. MENA countries' nonoil export potential relative to that of other middle income countries for the period 1998-2007



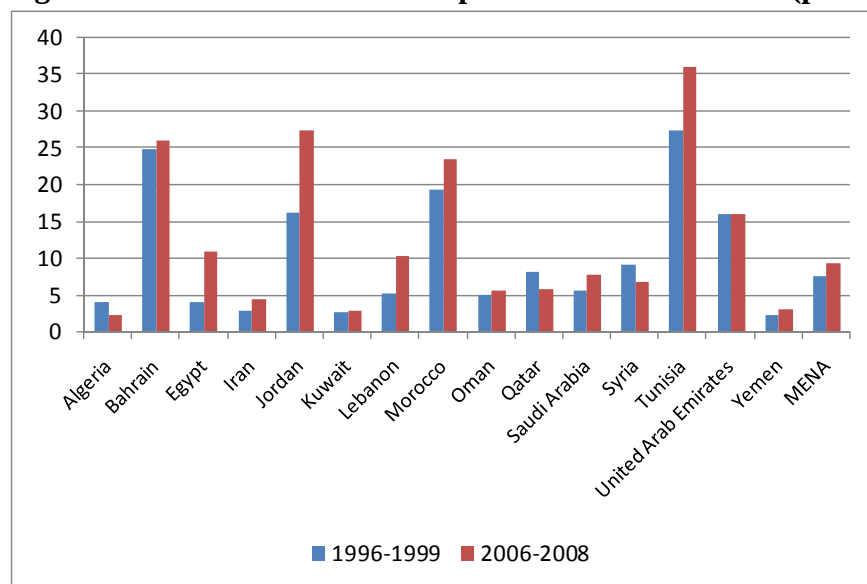
Source: Authors' estimation of export potential is based on the following estimated regression: $PCNOX = -181.09 + 0.2 * PCGDPPPP - 0.185 * PCNatRes$, sample size is 71, Adj $R^2 = 0.54$, and PCNOX stands for per capita exports of nonoil goods and services, PCGDPPPP is the value of the PPP GDP in per capita US\$, PCNatRes is the value of per capita resource-based exports in US\$.

During the past decade most MENA countries increased their openness and the average MENA share of nonoil exports in GDP rose from 7.5 percent in 1996-99 to 9.2 percent in 2006-08 (Figure 7). All MENA oil importers also made progress in reducing the concentration of their merchandise export baskets (Figure 8). Only the GCC oil exporters seem to have made virtually no progress in diversifying their merchandise exports. They export primarily processed industrial goods such as chemicals, fertilizers and other processed goods (Figure 9), although some GCC countries such as UAE and Qatar have made advances in diversifying their exports by expanding and diversifying services exports.⁹ Oil exporting countries export mostly processed industrial

⁹ Note that exports of services are not captured in Figure 8.

products, as well as primary and processed food items. Capital goods such as machinery and equipment represent a tiny share of their merchandise exports. By contrast, oil importers have a more diverse export basket (Figure 9). They export a mix of industrial, food and other consumer items, including some parts and components, and to a smaller extent, capital goods such as machinery and equipment. Tourism and transport are the main sources of export revenue in MENA's service sector. In the GCC countries the communication sector features as another major source of export revenue.

Figure 7. Non-oil merchandise exports as a share of GDP (percent)



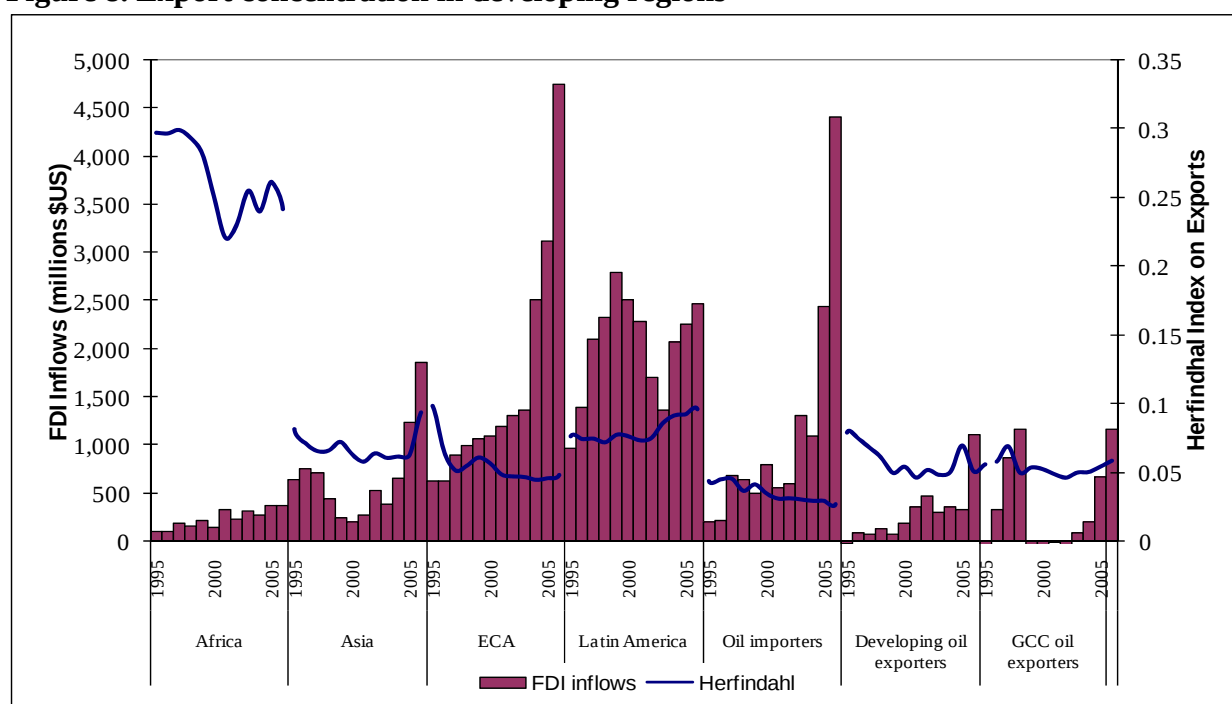
Source: COMTRADE data and World Bank MENA region, GDP data.

Note: The rise in export-to-GDP ratios is robust to data sources and types of exports.

MENA has made a major shift towards the fast-growing markets of Asia. In 1998, 14 percent of MENA's non-oil merchandise exports went to Asia, but by 2008 this share nearly doubled and reached 25 percent (Figure 10). The switch has been particularly dramatic for the developing oil exporters, whose share nearly tripled from 12 percent in 1998 to 35 percent in 2008. The move towards a greater reliance on Asia was a lot less dramatic for the oil importing countries. Their share increased from 8 percent in 1998 to 13 percent in 2008. Freund (2010) also finds that MENA and other developing countries increased exports to the four growing emerging markets¹⁰ (GEMs) that did not experience import collapses during the crisis in 2008-09.

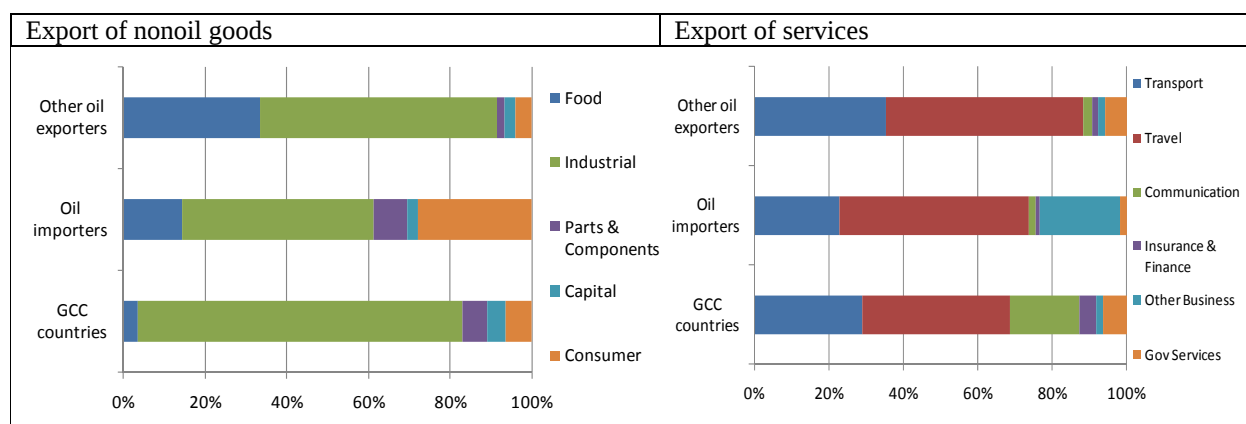
¹⁰ The four countries are Brazil, China, India and Indonesia.

Figure 8. Export concentration in developing regions



Source: Gourdon (2009). Herfindahl index is a flow-weighted concentration index $H = (\sum(s_k)^2 - 1/n)/(1 - 1/n)$, where s_k is the share of export line k in total exports, and n is the number of export lines. A drop in the index indicates a decline in the degree of export concentration. Numbers for Asia exclude China and newly industrializing economies.

Figure 9. MENA's export structure, 2008

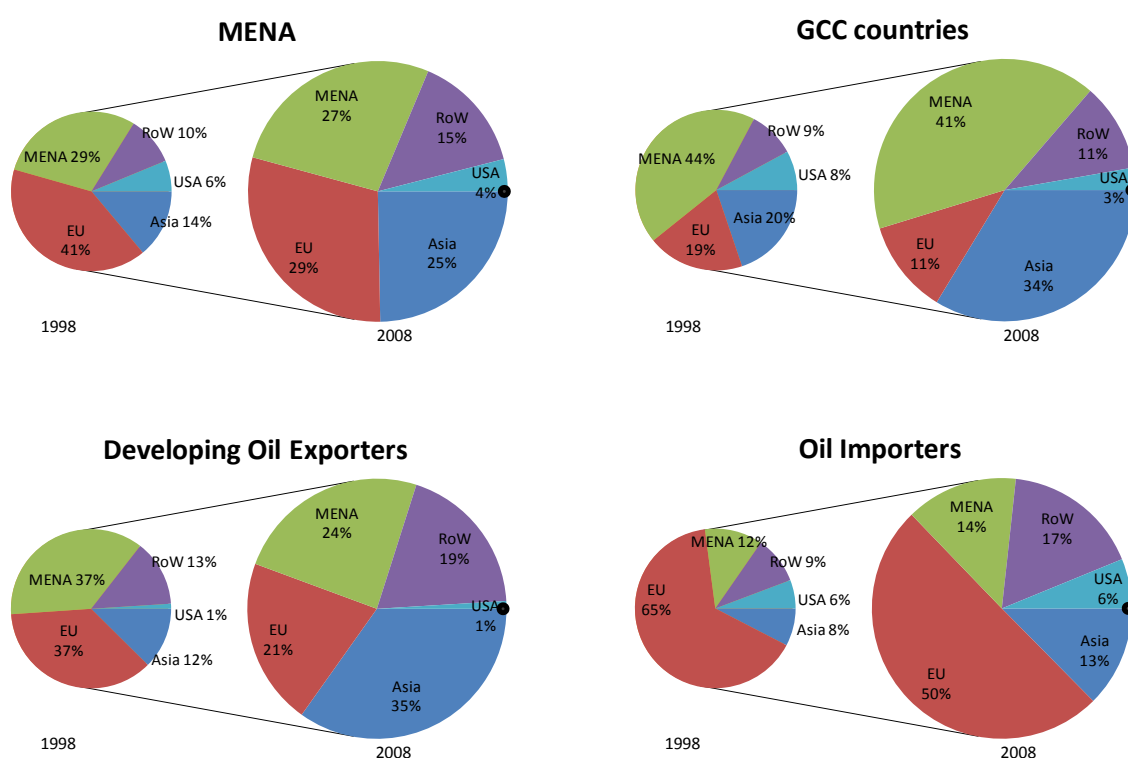


Source: Comtrade data for goods and UN Services Trade Statistics for services.

The shift towards Asia and the GEM (Brazil, China, India and Indonesia) is good news for MENA as these markets are well positioned to drive trade growth in the future. Indeed, a new post-crisis world trade order is emerging in which South-South trade will play a prominent role (Hanson 2010). Large and growing emerging markets are absorbing capital and goods from the rest of the world, and developing countries from MENA, SSA and SAS are shifting exports towards BRICs and low and middle-income countries. The GEMs appear to be among the most

promising markets. They remained remarkably resilient during the crisis of 2008-09 despite sizable exchange rate depreciation in Brazil and Indonesia, and without extensive fiscal support in Brazil, India and Indonesia (Freund 2010). In the past decade, the GEMs increased import demand for a variety of industrial goods – in particular, chemical products in Brazil, light manufactures in China and Indonesia, and machinery and transport in India (Freund 2010). Overall, however, import growth in the GEMs has been largely at the intensive margin, i.e. import growth has been driven by an increase in the volume of existing imports from existing sources. There has been some growth at the extensive margin, especially in Indonesia. Thirty percent of Indonesia’s imports in 2007/08 came from new exporters (Freund 2010).

Figure 10. MENA’s non-oil merchandise export destinations



Source: Comtrade data.

Despite the shift away from the old continent, Europe remains the most important export destination for MENA’s nonoil goods (Figure 10). This reflects largely the fact that the EU received half of the oil importing countries’ exports in 2008. For the GCC oil exporters, nonoil exports destined to other MENA countries represented the largest share, while for developing oil exporters, Asia became the most important destination for their nonoil merchandise exports. The market shift experienced by the developing oil exporters has been particularly striking. In 1998, 37 percent of their nonoil exports were destined for MENA countries – a share equal in size to

their EU nonoil export share (Figure 10). In 2008, their MENA and EU shares declined substantially to just a quarter and a fifth of their nonoil merchandise exports, respectively.

In 2008, MENA's share in world exports of nonoil goods and services was just 1.2 percent, up from 1 percent in 1998 (Table 1), and the share grew at a pace comparable to the average for middle income countries (MICs) excluding China, largely because of the expansion of services exports. During the period from 1998 to 2008, MENA's share in world exports of services grew by nearly 30 percent compared to just 15 percent for the MICs excluding China. However, when it comes to exports of nonoil goods, the situation reverses with MENA's share of exports of nonoil goods growing by just 17 percent compared to 26 percent for the MICs other than China (Table 1).¹¹ These results suggest that MENA firms exporting nonoil goods remain less competitive than firms in other MICs, but the opposite is true for MENA firms exporting services.

Table 1. Shares in world exports

	Exports of nonoil goods & services			Exports of nonoil goods			Exports of services		
	1998	2008	Change	1998	2008	Change	1998	2008	Change
MENA	1.0	1.2	20.0	0.6	0.7	16.7	2.4	3.1	29.2
MICs without China	13.2	16.3	23.5	13.3	16.7	25.6	13.0	15.0	15.4
China	3.1	8.6	177.4	3.5	10.0	185.7	1.7	3.7	117.6

Source: COMTRADE data.

Note: Change is percentage change in the share between 1998 and 2008.

MENA nonoil merchandise goods exports grew at a slower pace than exports of other developing countries. MENA's nonoil merchandise export growth was around 60 percent of growth in East Asia and ECA, and two thirds of growth in South Asia (Figure 11). Regional export growth was driven more by an expansion of existing products to new markets and new products to existing markets than by an increase of exports of existing products to existing markets. Growth at the extensive margin¹² played a much bigger role in MENA than in other regions. This was especially true in the case of the developing oil exporters, whose extensive margin accounted for 82 percent of nonoil export growth during the period 1998-2008 – an outcome consistent with the spectacular shift in their nonoil export destinations.

The dominance of the extensive margin can be explained partly by the decline or disappearance of exiting flows to some existing markets, notably Europe.¹³ MENA's exports of existing products declined or disappeared at the highest rate in the developing world. Some of the reasons behind these outcomes might be linked to pressures associated with increased competition from China and other emerging economies in specific markets such as the EU. China and other East

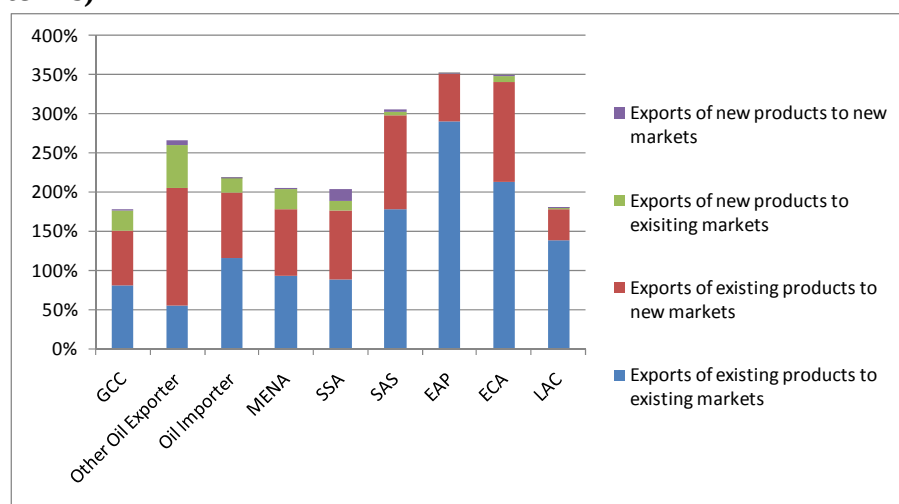
¹¹ In this comparison we allow other MICs to benefit from exports of commodities other than petroleum.

¹² The extensive margin captures the expansion of existing products to new markets and new products to existing and new markets.

¹³ Source: Brenton, Shui and Walkenhorst (2010).

Asian developing countries were able to scale up in a big way their existing exports in the EU and elsewhere. Indeed, East Asia's intensive margin accounted for 82 percent of export growth in the past decade, compared to 45 percent in MENA (Figure 11). Had MENA countries been able to maintain the level of existing export flows that actually declined or disappeared, export growth would have been 50 percent higher in MENA, 59 percent higher in the GCC and developing oil exporters, and 39 percent higher in oil importers (Table 2). For East Asia, the decline and disappearance of existing exports reduced export growth by just 30 percent (Table 2).

Figure 11. Non-oil merchandise export growth by region for the period 1998-2008 (in value terms)



Source: Authors' calculations based on Comtrade data.

Behind MENA's weak nonoil merchandise export growth performance might have been shifts in demand or intense competition between MENA firms and firms from other emerging markets. Firms from oil importing countries seemed to have withstood competition better than those from oil exporting countries,¹⁴ but they were less successful in shifting existing products to new markets, perhaps because they were constrained by existing preferential trade arrangements. Consequently, merchandise export growth of oil importers lagged behind that of non-GCC oil exporters and other emerging regions, except Latin America and Sub-Saharan Africa (Figure 11).

During the past ten years oil importers grew their exports in EU markets mostly by increasing exports of existing products (Figure 12), but they also managed to expand on a smaller scale some types of merchandise exports to Asia. MENA oil importers had much greater success than MENA oil exporters in expanding exports of parts and components to EU and Asia (Figure 12). They were also more successful than oil exporters in expanding exports of capital goods to the EU. However, export growth linked to global production sharing arrangements was weak relative

¹⁴ The intensive margin of oil importers was affected to a much smaller degree by the decline or disappearance of existing products to existing markets.

to export growth of industrial products, consumer goods and food products – especially to the EU.

Table 2. Decomposition of the intensive margin

	Exports of existing products to existing markets	Increase in export of existing products to existing markets	Fall in export of existing products to existing markets	Extinction in exports existing products to existing markets
GCC	80%	139%	-30%	-29%
Other Oil Exporter	54%	114%	-26%	-33%
Oil Importer	116%	154%	-20%	-19%
MENA	92%	143%	-25%	-25%
SSA	89%	137%	-21%	-27%
SAS	178%	213%	-20%	-15%
EAP	290%	321%	-21%	-9%
ECA	213%	255%	-25%	-17%
LAC	139%	171%	-22%	-11%

Source: Authors' calculations based on COMTRADE.

Developing oil exporters' nonoil export growth was driven by an export expansion of industrial products in Asia (Figure 12), followed by much smaller increases in Europe, MENA and the rest of the world. This group faced serious competition in the EU markets for consumer and capital goods. Exports of capital goods to nontraditional markets grew more relative to exports of these goods to other regions, but the expansion was insignificant in quantitative terms. The export growth of the GCC oil exporters could be attributed to a strong expansion of industrial exports to Asia, and within the MENA region. GCC oil exporters lost some ground in all other industries in the EU (Figure 12).

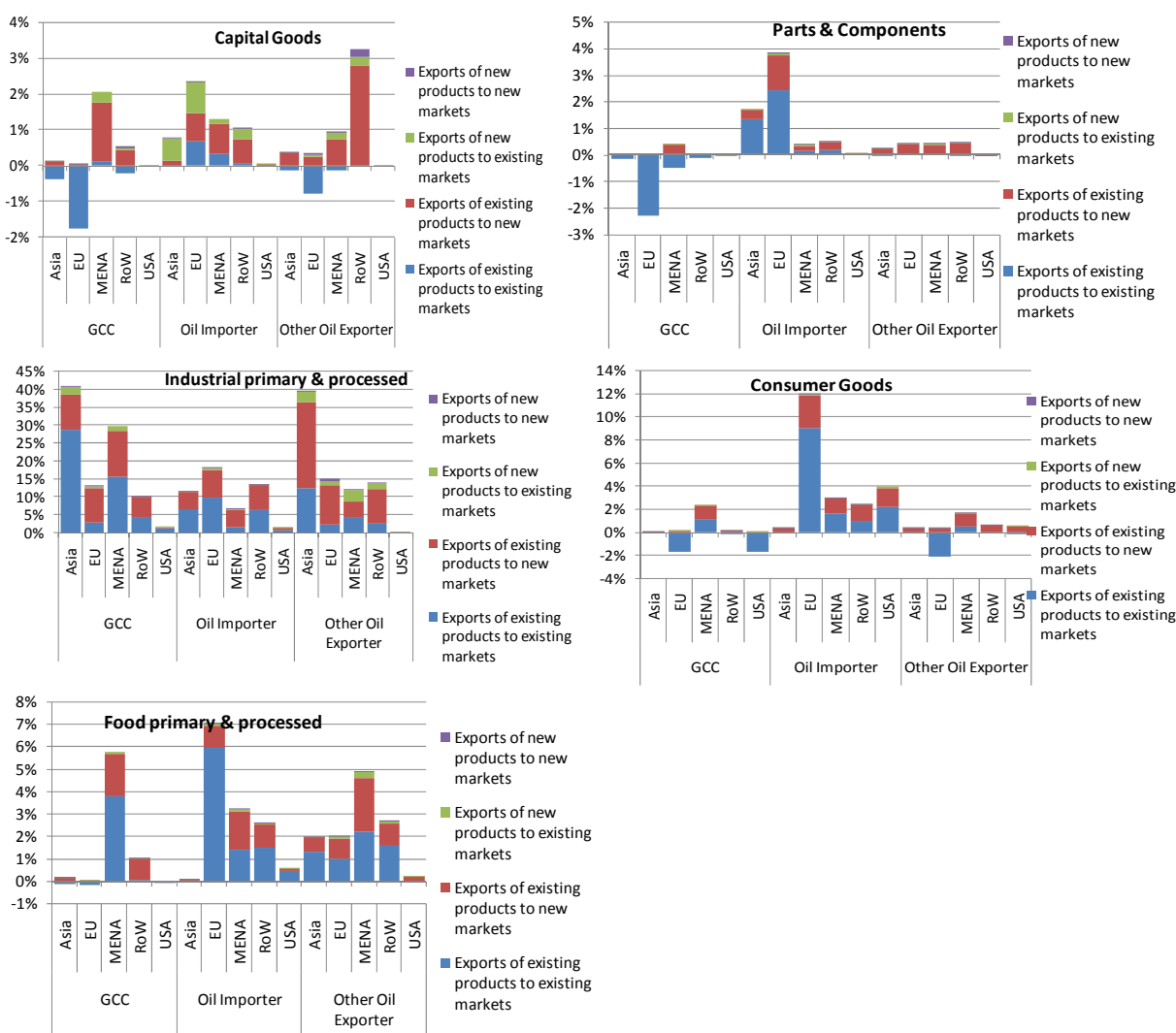
Important information is hidden behind the margin indicators. In a number of countries, the key products that have driven growth to certain markets have also driven the decline to other markets. For example, in Tunisia, the same product group "men's and boy's cotton trousers" is at the top of the lists of existing products with increased exports to existing markets and decreased exports to existing markets. This is an indication of the considerable change in the structure of markets to which Tunisia exports this product.¹⁵ Perhaps in response to greater competition, in many countries, in sectors with differentiated products, there were substantial within-industry adjustments as firms switched production to exports of similar goods within the same product class. For example, the decline in "men's and boy's cotton trousers" has been compensated by an expansion of "women's and girl's cotton trousers".

Growth at the extensive margin is evidence of the growing importance of global production sharing arrangements in the electrical and motor vehicle industries of oil importers with strong EU links, and the increasing importance of chemicals and chemical products for a number of countries, including the GCC oil exporters. Finally, for a number of products that have driven

¹⁵ For further analysis see Brenton, Shui and Walkenhorst (2010).

export growth in MENA, China's share in the world market has increased significantly, suggesting a complicated picture of export growth. In the EU, MENA's export expansion was limited by the expansion of China and other emerging market exporters in the EU market, but MENA firms appear to have reallocated toward more rapidly growing product and market segments of the European Union and Asia.

Figure 12. Nonoil merchandise export growth by market and industry, 1998-2008



Source: Authors' calculations based on COMTRADE.

Foreign Direct Investment (FDI) plays a key role in the process of technological acquisition and learning-by-doing in developing countries. In MENA, FDI started increasing at a rapid pace after 2000. Indeed, net FDI inflows as a share of GDP were highest in MENA compared to other regions in the world (Table 3), and FDI appears to be above its estimated potential in the oil importing countries and some developed oil exporters (Figure 13). However, except for tourism, FDI outside the energy sector was directed to nontradables with little going to export-oriented

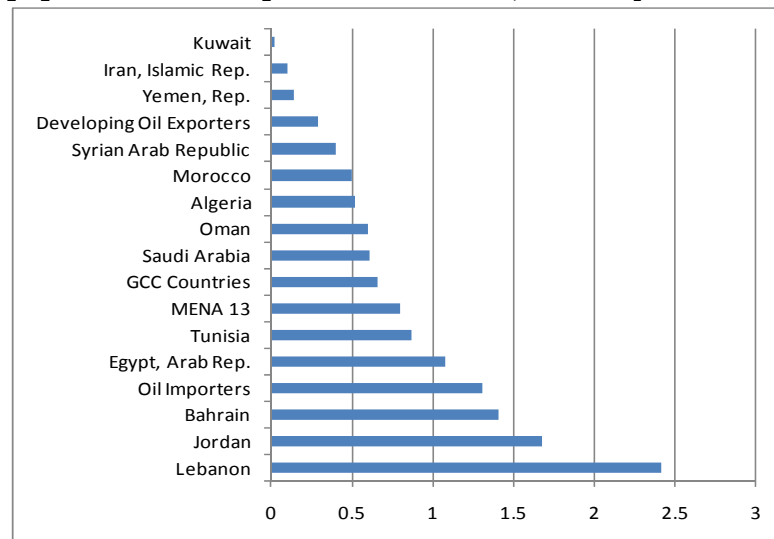
manufacturing or high-tech services (Figure 14). Furthermore, there is little evidence of job creation or technology and knowledge transfers via FDI from parent companies to local affiliates.¹⁶

Table 3. FDI has grown rapidly in MENA (% of GDP, net inflows)

	1990	1995	2000	2005	2008
EAP	1.57	3.9	2.64	3.46	3.33
ECA	..	1.06	2.16	3.07	4.44
LAC	0.74	1.73	3.93	2.74	3.01
SAS	0.14	0.63	0.72	1.08	3.31
SSA	0.41	1.4	2	2.94	3.47
MIC	0.78	1.97	2.71	2.88	3.51
World	0.99	1.13	4.83	2.55	3.04
MENA	0.22	0.31	1.22	2.57	4.57

Source: World Bank, WDI

Figure 13. MENA countries' FDI potential conditioned on openness, natural resources and population for the period 1998-2007 (actual to predicted net FDI inflows as % of GDP)



Source: Authors' estimation of export potential is based on the following estimated regression: $FDI/GDP = -0.077 + 0.033 * NOX/GDP - 0.007 * NatRes/GDP - 0.003 * \log(POP)$, sample size is 69, $R^2 = 0.1$, and FDI/GDP stands for net foreign direct investment inflows as a percent of GDP, NOX/GDP defines the value of nonoil exports of goods and services as a percent of GDP, NatRes/GDP defines the value of resource-based exports as a share of GDP,¹⁷ POP stands for population.

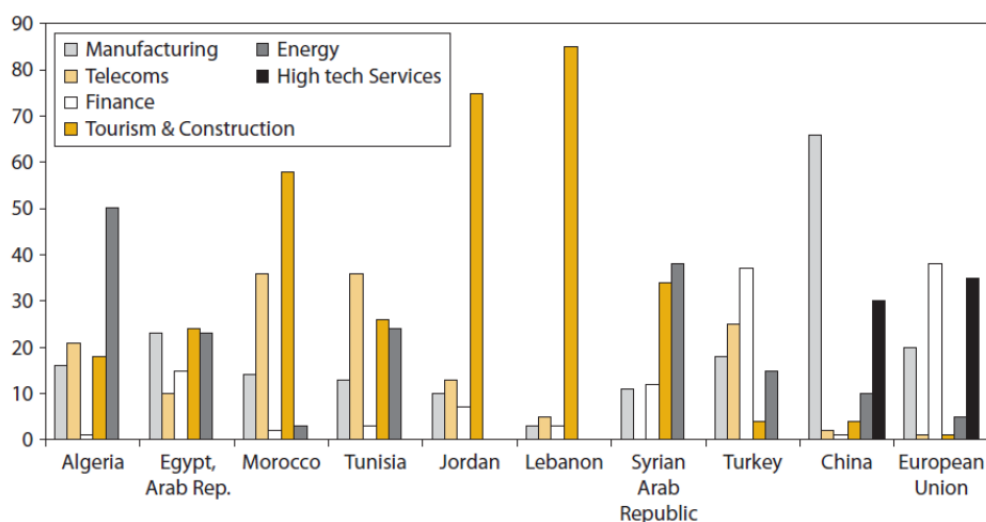
MENA countries' efforts to improve the technological content of their nonoil merchandise exports have had mixed results. During the period between 2000 and 2008, oil importers' share

¹⁶ Source: Pigato (2009).

¹⁷ The value of resource-based exports is given by the sum of the value of exports of oil, mineral, food and agricultural raw products.

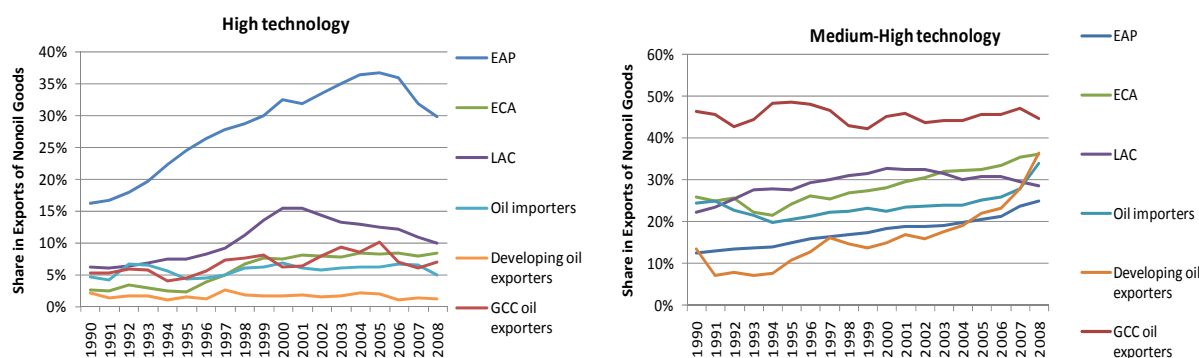
of high technology exports in total nonoil merchandise exports declined, while oil exporters' shares stagnated (Figure 15). Developing MENA countries were much more successful in increasing the presence of medium-high technology products in their nonoil merchandise basket during the same period (Figure 15). GCC countries' progress however was negligible.

Figure 14. Structure of FDI, cumulative 2000-07 (percent of FDI)



Sources: United National Conference on Trade and Development, *World Development Indicators*, national accounts.

Figure 15. Technological content of exports by region



Source: COMTRADE data.

Intra-regional trade stagnated and intra-industry trade remains limited. The Pan-Arab Free Trade Agreement (PAFTA) and the Free Trade Agreements (FTAs) with the EU were driving forces behind the opening up of MENA markets. However, intra-regional exports remained approximately the same as a share of MENA's total nonoil exports between 1998 and 2008 (Figure 10). GCC and developing oil exporters shifted their nonoil exports away from MENA and EU towards Asia and rest of the world, while intra-regional exports of oil importers increased slightly as a share of their total nonoil exports (Figure 10).

Low trade complementarity places natural limits on intra-regional trade. The dominance of oil in more than two thirds of the countries in the region, and the similarity of industrial policies and cultural characteristics imply that trade complementarity is low among MENA countries. The degree of complementarity between two countries can be measured with the bilateral complementarity index which captures the similarity between the export basket of one country and the import basket of another country.¹⁸ The index ranges from 0 to 100, with higher values indicating greater complementarity. Typically, the complementarity indexes between partners in successful regional agreements are above 50, while for moderately successful ones, they are between 25 and 30. In MENA, bilateral complementarity indexes are almost always below 20, with a large share of the numbers in single digits. The non-oil complementarity indexes tell a similar story.

Thus, unlike East Asia, Europe and North America, there is no natural hub or anchor country in MENA and no equals, i.e. large countries with interests in cooperating. Outside MENA, the EU could serve as a hub for developing MENA, while Turkey could serve as an intermediate link in the production network. Complementarity indexes of MENA countries with the North are greater than those between MENA countries. There is also evidence that Turkey has started the process of moving operations to low-cost locations in the Mashreq,¹⁹ for instance Syria. The challenge would be to build momentum and to address the barriers to trade, including those created by existing preferential arrangements. When integration is limited to a PTA without common external tariffs, the rules of origin become a major determinant of the incentive regime confronting firms.

Countries with high most-favored-nation (MFN) tariffs, for instance Tunisia and Morocco, are exposed to high risk of costly trade diversion. Opening toward selected partners in the region or outside the region can divert trade flows from more efficient third-country producers to less efficient partner country producers, resulting in a loss of tariff revenues without the benefits of lower purchasing costs. The risk of trade diversion is higher if the intensity of trade between partners before bilateral liberalization is low as is the case in MENA.

When a country both exports to and imports from another country in the same industry, it does so either because it trades differentiated products or because it participates in international supply chains. When measured at the product level, one is more likely to find that intra-industry trade occurs because of differentiation, while when measured at the industry level, it can be a result of both effects. Traditional adjustment effects of trade liberalization are less likely to be felt when trade is intra-industry since resources do not have to move across industries where retraining and retooling is necessary, rather they need to move across firms within a given sector. However, as seen during the recent crisis countries engaged in intra-industry trade because of their

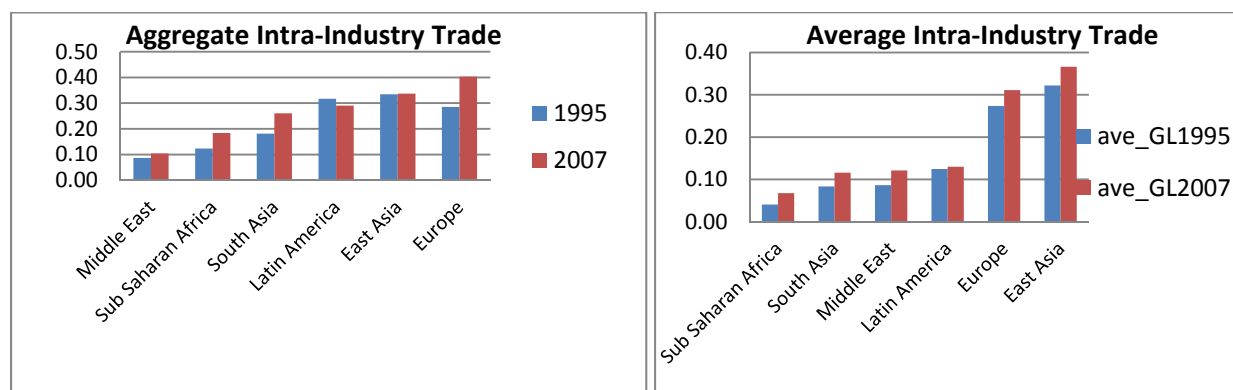
¹⁸ Source: See Yeats (1998) and Khandelwal (2004).

¹⁹ Mashreq includes Iraq, Jordan, Lebanon, Syria, and West Bank and Gaza.

participation in global production networks are vulnerable to external shocks affecting these networks.

Intra-industry trade within MENA and with the rest of the world is measured by the intra-industry trade (IIT) index. The IIT index represents the share of intra-industry trade in country's total trade (Box 4), and varies between 0 when there is no intra-industry trade and 1 when trade is completely balanced across sectors and countries. Behar and Freund (2010) calculate the IIT index for MENA and other regions and find that MENA's *aggregate* intra-industry trade is much more limited than that of other regions (Figure 16) – a finding similar to that presented in a paper by Brulhart (2009). However, the aggregate index obscures a significant variation among countries. The typical MENA country is not too different from the typical country in SSA, SAS and LAC in terms of intra-industry trade when measured with the average index of intra-industry trade (Figure 16). They all have low levels of intra-industry trade, but the aggregate regional results in SSA, SAS and LAC are affected by large IIT flows in large economies like South Africa, India, Mexico and Brazil. In East Asia, aggregate intra-industry trade remained constant at about one-third of total trade from 1995 to 2007, while average intra-industry trade surged reflecting the shift of supply chains to Asia over this period. In the Middle East and North Africa, growth in intra-industry trade also appears to have been sharper within the region than globally during the same period (Figure 17).

Figure 16. Intra-industry Trade index by region



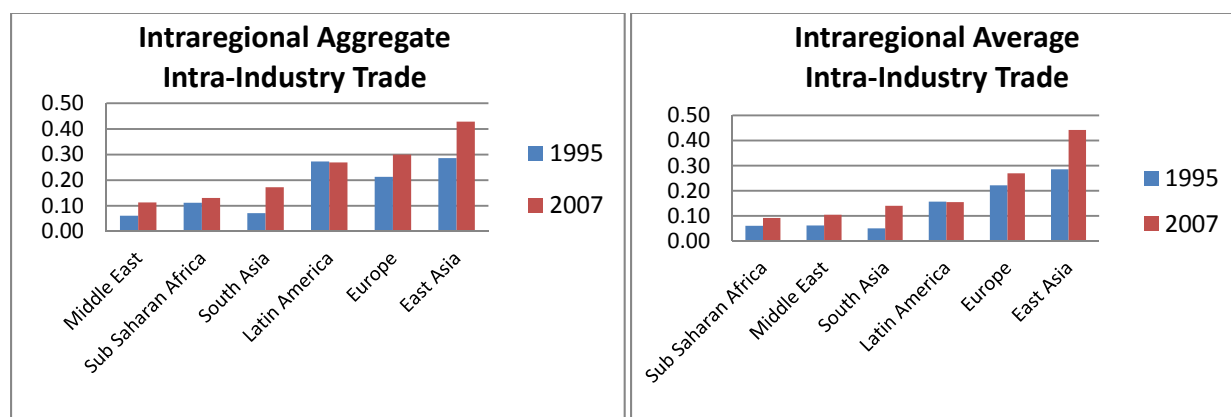
Source: Behar and Freund (2010).

Note: Middle East stands for Middle East and North Africa.

Consistent with low protection on manufactured trade in GCC countries and oil importers with strong GCC links, a study by Brulhart (2009) suggests that intra-industry trade has grown more rapidly within the block of GCC and Mashreq countries than within Maghreb, where it has stagnated. Still the increase in IIT within the GCC-Mashreq block remains small in comparison to the increase of IIT in other regions. The IIT linkages between MENA and LAC, SSA and ECA were weakest among all pairs of world regions represented in the paper. IIT linkages between MENA and the high income countries, and MENA and South Asia were stronger, but

still very weak compared to those between ECA, LAC, SAS, EAS and the high income economies.

Figure 17. Intra-Regional, Intra-Industry Trade index by region



Source: Behar and Freund (2010).

Note: Middle East stands for Middle East and North Africa.

3. What are the major constraints to MENA's nonoil export growth?

Do MENA countries face any special market access issues? To answer this question, this section discusses estimates of overall protection by type of merchandise goods such as agricultural goods, manufactures, nonoil and oil products, and by region, including MENA, its three major subgroups – the GCC oil exporters, the developing oil exporters and oil importers, and other key regions. It is important to note that only in this section, non-oil goods are a subcategory of manufactured products, while in all other sections of the paper, non-oil goods refer to all merchandise goods other than petroleum products. The estimation required a split of products at the HS6 level into two mutually exclusive sets of agricultural and manufactured products. Manufactured products were then split again into another two mutually exclusive sets comprised of oil products and non-oil products. Appendix tables A1 through A14 present the complete set of estimates of overall protection, tariffs and ad-valorem equivalents (AVEs) of NTMs.

While tariffs are mostly expressed in terms of a certain percentage of the custom value of an imported product, non-tariff barriers (NTBs) are sometimes hard to quantify. Examples of NTBs include quotas, non-automatic licensing, antidumping duties, technical regulations, monopolistic measures, and subsidies. Nontariff barriers are a subset of nontariff measures (NTMs) which include a wide array of instruments such as sanitary and phytosanitary measures (SPS), technical barriers to trade (TBT), quotas and prohibitions, import and export licenses, custom surcharges, financial, anti-competitive, and anti-dumping measures and others. Some of these measures are essential by nature and imposed to achieve objectives other than to restrict trade. Evidence exists however that countries are using NTMs to erect NTBs as trade agreements impose limits on the

use of traditional trade policy instruments such as tariffs. NTBs are difficult to measure since there is no comprehensive and continuously updated information on NTMs. The most comprehensive source of NTMs information – the UNCTAD Trade Analysis and Information System (TRAINS) database used in this study – has not been updated regularly since 2001 and does not have adequate and accurate country coverage and coverage of new forms of non-tariff measures.

Given these caveats, the estimates of overall protection inclusive of NTMs should be interpreted with caution and considered indicative of the restrictions created by NTMs prevailing in the set of countries on which data are available. The tariff-only protection rates provide lower bounds to protection discussed in the report. NTMs typically affect a very large share of imports and technical barriers, including SPSs and TBTs, which are the most prevalent form of NTM. Estimates of NTM coverage range from 34 to 54 percent for industrial countries' imports from the developing world (Nogues *et al.* 1986, Kee *et al.* 2009). Kee *et al.* estimate that NTMs result in protection rates of 9.2 percent in simple average terms and 7.8 percent in trade-weighted terms. Similar to trade logistics barriers, NTMs have a trade-reducing impact. Hoekman and Nicita (2008) find that cutting NTMs in half from around 10% to 5% would boost trade by 2-3 percent.

To adequately measure the restrictiveness of the trade policies of a country, one needs to combine the different forms of trade policies in a meaningful way. The question is how to combine a 10% tariff, with a 1000 ton quota, a complex non-automatic licensing procedure and a \$1 million subsidy? To achieve this objective, we follow Kee, Nicita and Olarreaga (2009) and first estimate the quantity-impact of NTBs on imports in a good level regression, conditioning on the existing tariff level of each product in each country. The estimated quantity impacts of NTBs on trade imports of the good is then converted to price effects using the import demand elasticities of the product in each country from Kee, Nicita and Olarreaga (2008). These are the estimated **ad-valorem equivalents** (AVEs) of NTBs for each country at the tariff-line level. Combining the estimated AVEs of the NTBs with tariffs for each product in each country gives us the overall trade policy restriction of each country at tariff line level. To obtain the overall trade restrictiveness index of a country, the weighted average of the overall trade policy restriction of each country at tariff line level is calculated with weights reflecting the import share and import demand elasticity of the each tariff line product.²⁰

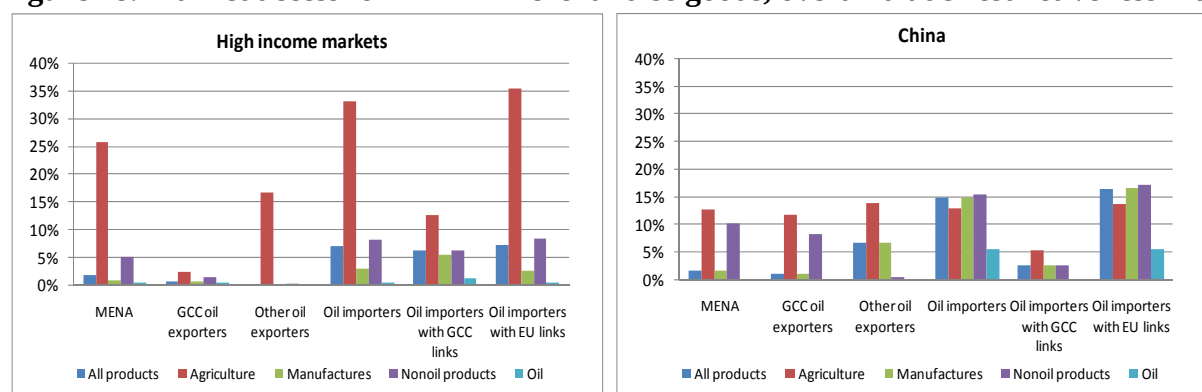
For the estimations presented in this paper we relied on tariff data for 2008 and latest NTB data. However, for the MENA countries the information refers to the period prior to 2005 as more recent information on NTBs was not available for these countries at the time of writing. GCC oil exporters are represented by Oman and Saudi Arabia, and developing oil exporters by Algeria, due to lack of data on other GCC and developing oil exporters. Thus, the results for the GCC

²⁰ For more details please refer to Kee, Nicita and Olarreaga (2009).

countries and developing oil exporters should be interpreted with caution. Oil importers include countries with strong GCC links (Jordan, and Lebanon) and those with strong EU links (Egypt, Morocco and Tunisia).

The estimates suggest that MENA countries have relatively good market access for nonagricultural goods in high income countries. The average protection encountered by MENA's exports in advanced countries' markets, measured by the overall restrictiveness index was less than 1.9 percent in 2008 (Figure 18). This low average protection reflects mainly low or zero tariffs on oil exports, which dominate MENA oil exporting countries' export baskets, as well as tariff and quota free access to the EU and the US for manufactured goods coming from some oil importers.²¹ MENA's average nonoil protection rate is higher at 5.2 percent but this rate is in line with nonoil protection on exports of firms from other regions (Figure 18). However, overall agricultural protection is high, reflecting restrictive NTBs and constraining exports, especially for oil importers with EU links. Overall protection on agricultural goods is highest for Tunisia (51.1%), followed by Morocco (37%) (Appendix Table A13).

Figure 18. Market access for MENA merchandise goods, overall trade restrictiveness index



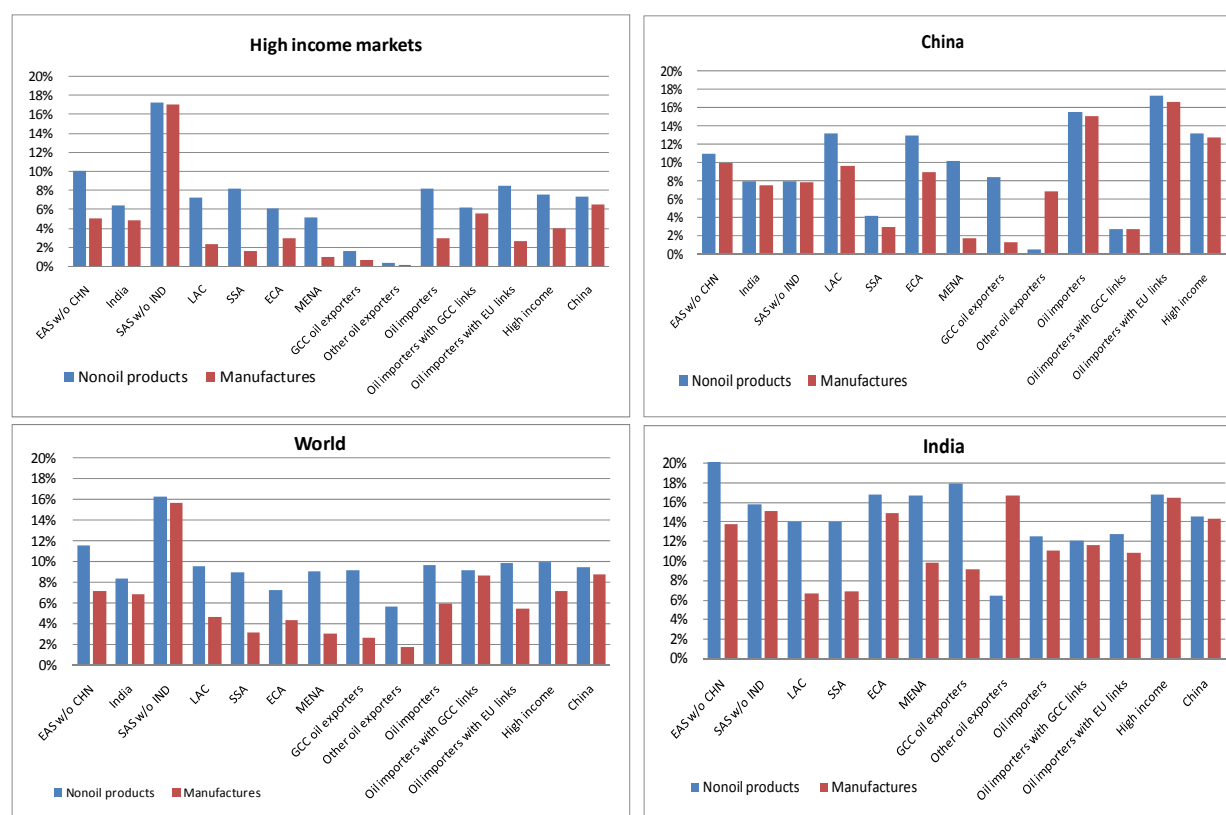
Source: Staff estimates based on tariff data for 2008 and latest official NTBs data. Note: (1) Agriculture includes primary and processed agricultural products and food items. Note: The estimates exclude restrictive NTBs imposed by China on natural gas imports from Algeria. These are extremely high and distort the average protection rates faced by developing oil exporters in China. (2) The estimations exclude quotas on manufactured exports from Algeria, Morocco, Tunisia, Lebanon, Jordan, and Egypt to the EU as these countries have FTAs with EU.

MENA countries have more restricted market access in China than in advanced markets. Overall nonoil protection in China averaged 10.2 percent for imports from MENA and 15.6 percent for imports from MENA's oil importing countries (Figure 18). MENA oil importers with EU links encountered much higher overall protection than others (Figure 19 and Figure 18) because of high tariffs on specific products exported to China. Indeed, China's protection rate on nonoil imports from these countries was around 11 percent, and approximately 3 to 4 times higher than

²¹ Within the group of oil importing countries, Morocco, Tunisia, Egypt, Lebanon, and Jordan have signed bilateral FTAs with the EU, while Morocco, Jordan and Lebanon have signed bilateral FTAs with the US. See for further detail Hoekman and Sekkat (2009).

protection imposed on imports from other parts of Asia, and the rest of the world. By contrast, China's overall barriers on nonoil goods exported by MENA's oil exporters and oil importers with GCC links are much lower than the ones imposed on oil importers with EU links and other regions (Figure 19). The relatively low trade barriers appear to have facilitated the rapid growth of these countries' exports to China and other parts of Asia in the period between 1998 and 2008. Tariff protection on MENA's agricultural exports to China was steep compared to other regions (Figure 20), reflecting high tariffs on specific products.

Figure 19. Market access for nonagricultural products, overall trade restrictiveness index (2008)



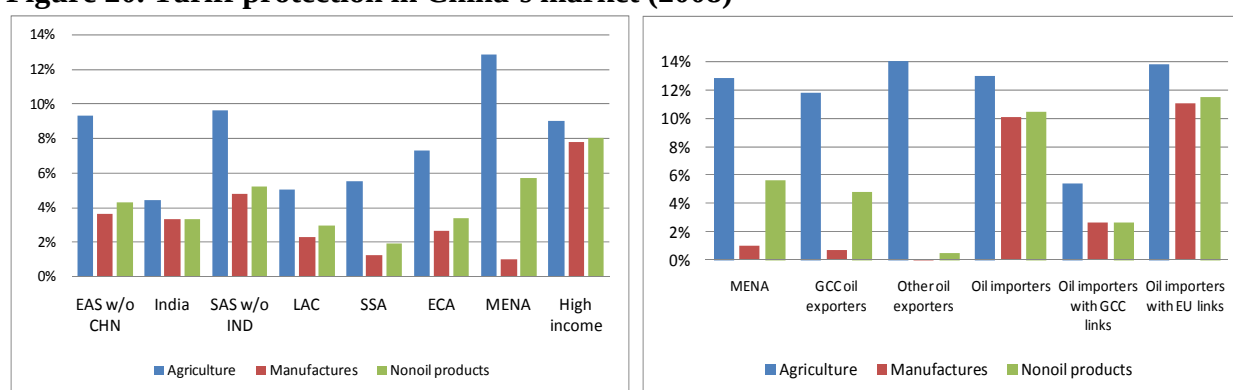
Source: Staff estimates based on tariff data for 2008 and latest official NTBs data. Notes: (1) The estimates exclude restrictive NTBs imposed by China and India on natural gas imports from Algeria. These are extremely high and distort the protection rates faced by developing oil exporters in China and India. (2) The external trade barrier on nonoil products in EAS excluding China averages slightly more than 20 percent.

All regions face higher protection in India than elsewhere, and MENA region is not an exception (Figure 19). However, the overall protection on MENA's nonoil exports to India is among the highest in the world, largely because of high barriers on GCC's nonoil exports. Protection on oil importers' exports was generally lower in India than in China largely due to product composition effects as the simple average tariff in India was 18% vs. 10% in China in 2008. Tariffs in China and India vary substantially by product line, with more than 100 tariff peaks each. In China,

these peaks affect agricultural and industrial products in equal proportions. In India, four fifths of all peaks fall on agricultural goods (Pigato 2009).

There is no evidence that protection has increased substantially since 2008 when the global crisis erupted. Indeed, a study by Bown and Kee (2010) underscore the limited role of trade barriers in the global trade collapse at the end of 2008.²² They find evidence that much of the new post-crisis protectionism is in the form of “South-South” trade barriers such as antidumping that one developing economy imposes on the imports of other developing economies. This phenomenon has not been new but has been trending in this direction long before 2008-09, and was accentuated during the crisis.

Figure 20. Tariff protection in China’s market (2008)



Source: Staff estimates based on tariff data for 2008.

Note: The estimates exclude restrictive NTBs imposed by China on natural gas imports from Algeria. These are extremely high and distort the average protection rates faced by developing oil exporters in China.

Despite good market access developing MENA countries underexploit existing opportunities for export growth as measured by the index of export market penetration. The index is calculated by dividing the number of export 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.²³ Developing oil exporters such as Yemen, Algeria, Iran, and Syria exported their products to less than 5 percent of markets in 2005 (Table 4). Oil importers were more successful than them despite facing in many cases higher barriers in world markets, but still most of them exported to less than 7 percent of markets, and compared poorly to other countries, including Turkey which reached 27 percent of markets that import its products.

²² There are a number of hypotheses about what caused the collapse and why it became so widespread and deep. Some argue that the collapse in trade was the result of a synchronized postponement of purchases, especially of durable consumer and investment products. Others insist that the collapse in trade was a consequence of the sudden financial arrest, which froze global credit markets and spilled over to the specialized financial instruments that finance international trade. Still others note that with the globalization of supply-chains, a fall in manufactures could lead to an outsized fall in total trade, particularly if supply chains are disrupted. For more detail see Haddad et al. (2010).

²³ For more details see Brenton and Newfarmer (2009).

Table 4. Index of export market penetration by country, 1995 and 2005 (percent)

	1995	2005
Algeria	2.1	2.4
Egypt	6.6	11.3
Iran	4.6	6.9
Jordan	2.9	4.9
Lebanon	4.1	7.6
Morocco	6.0	8.8
Syria	4.3	7.2
Tunisia	4.4	7.7
Yemen	1.5	2.0
Turkey	13.5	27.1

Source: Brenton, Shui and Walkenhorst (2009)

Table 5. Bilateral index of export market penetration of EU and US markets

Exporters										
Importer	Algeria	Egypt,	Iran	Jordan	Lebanon	Morocco	Syrian	Tunisia	Yemen	Turkey
Europe and the United States										
Belgium	9.0	17.3	6.3	4.6	12.9	25.9	9.6	28.1	1.2	52.0
France	32.5	26.6	17.7	6.1	21.8	57.3	18.5	61.3	2.6	57.0
Germany	7.4	33.2	32.9	11.5	16.7	33.5	18.7	36.2	6.6	71.8
Greece	1.0	22.0	3.4	3.6	9.1	7.1	11.8	6.2	0.2	61.7
Italy	18.3	34.0	18.2	9.8	18.8	36.9	17.8	50.4	2.6	62.5
Netherlands	4.2	18.4	13.0	7.5	7.7	20.8	7.1	15.6	1.2	51.4
Portugal	3.4	7.1	3.0	1.6	2.1	19.4	0.7	11.0	...	32.2
Spain	19.9	27.1	15.3	11.2	19.1	57.0	12.9	29.5	0.6	54.3
United Kingdom	8.6	29.4	16.5	13.3	16.0	28.1	14.6	19.7	7.6	64.1
United States	3.8	27.2	5.8	20.6	19.5	26.1	13.1	17.2	4.0	52.0

Source: Brenton, Shui and Walkenhorst (2009).

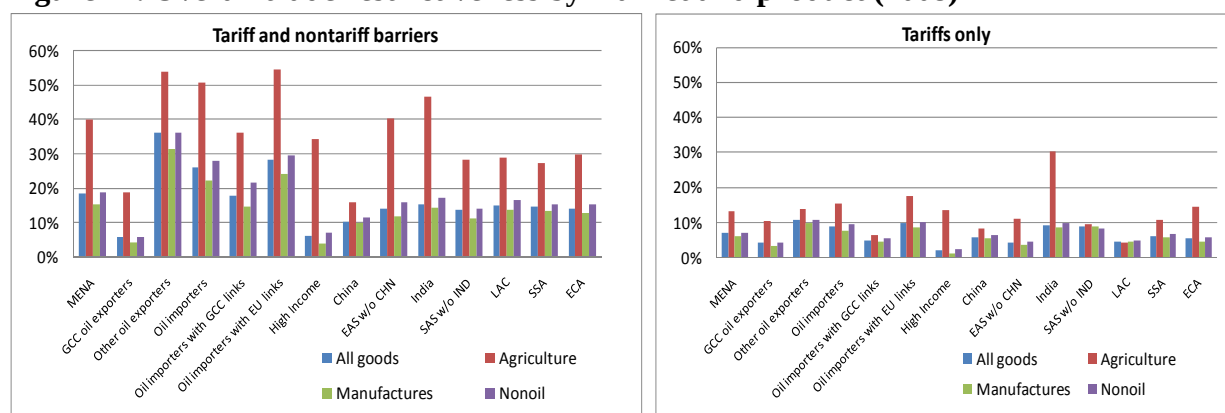
Furthermore, success in penetrating foreign markets varies greatly across MENA countries (Table 5) and cannot be explained just with differences in protection in these markets. For instance, MENA countries take advantage of market opportunities in some EU countries to a much greater extent than in others EU countries. Morocco, for example, takes advantage of nearly 60 percent of opportunities to sell its export products in France and Spain, but just 20 percent of its export opportunities in the Netherlands and Portugal. Tunisia has much greater success in France and Italy than in Spain and Portugal. By contrast, the variability of Turkey's index was much smaller than that of MENA countries suggesting that Turkey's firms market their products successfully and consistently in different country contexts.

Protection in developing MENA is high, largely due to NTMs. MENA region has liberalized its trade considerably by lowering its tariff barriers, which are now comparable to tariffs in other regions (Figure 21). In the GCC oil exporters, tariffs on agricultural products averaged around 10 percent in 2008, while tariffs on manufactured goods were less than 3 percent on average (Figure 21). Overall trade restrictiveness was also low – lower even than the restrictiveness in high incomes countries. By contrast, tariffs in developing MENA countries were higher than in most other regions. For manufactured products they were 10 percent in the developing oil exporters and around 7 percent in oil importers. For agricultural products, tariffs were comparable to those

in high income countries and ECA, and were much lower than tariffs in India. Within MENA, agricultural tariff protection was higher in the oil importers with EU links than in all other regional subgroups.

Overall protection in developing MENA is much higher than tariff protection due to restrictive nontariff measures (NTMs). Nonoil NTMs which act as nontariff barriers (NTBs) are estimated to be extremely large in developing MENA, especially in the non-GCC oil exporters (Figure 22). When nontariff barriers are included the rate of overall protection on nonoil goods in developing MENA more than triples and reaches 35 percent in developing oil exporters and 28 percent in oil importers. The increase is more dramatic for agricultural goods which are much more heavily protected than manufactures. Agricultural protection averages around 50 percent in developing MENA, while protection on manufactured goods reaches 35 percent in developing oil exporters, and 28 percent in developing oil importers. Given that by the Lerner symmetry theorem, removing import restrictions is tantamount to removing restrictions on exports, there is thus a substantial nontariff agenda in developing MENA countries.

Figure 21. Overall trade restrictiveness by market and product (2008)



Source: Staff estimates based on tariff data for 2008 and latest official NTBs information. In MENA latest official NTB data reflects information for different years between 1999 and 2003 in different countries.

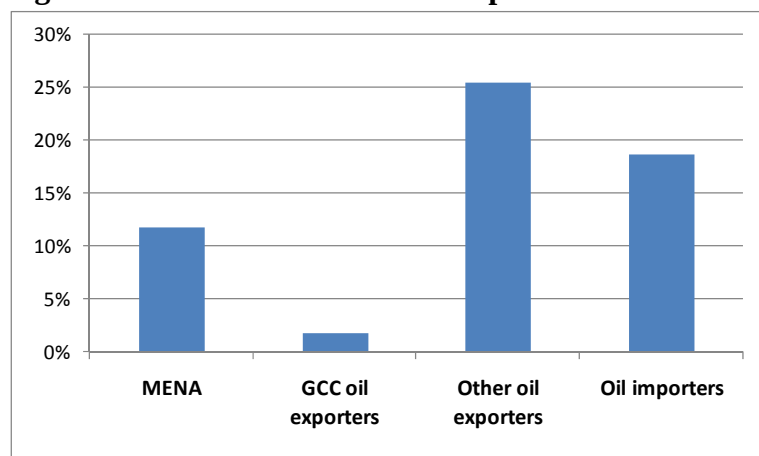
In a set of MENA countries for which NTM information is available,²⁴ more than 19,000 tariff lines were affected by some type of NTB at the HS6 digit product level. This implies that of all 5,200 existing product lines at the HS6 digit product level, most products are affected by NTMs and many of these are affected by more than one NTM. In MENA, technical barriers account for 60 percent of the product lines affected by some type of NTM, followed by quotas and prohibitions which cover just 25 percent of the product lines and licenses – 18 percent.

Estimates presented in this paper suggest that NTM-related protection rates on nonoil goods range from 12 percent in MENA (Figure 22), LAC and EAS outside China, to around 5 percent

²⁴ The countries include Egypt, Jordan, Lebanon, Morocco, Tunisia, Algeria, Bahrain and Oman.

in developed economies and China. Nonoil NTM-related protection rates in other developing countries fall within this range and average 10 percent in ECA, 9 percent in SSA, 8 percent in India and 6 percent in other South Asia. Within MENA, the range of NTM-related protection rates widens dramatically, from 2 percent in the GCC countries, to 19 percent in the oil importers, and to 26 percent for developing oil exporters (Figure 22).

Figure 22. Estimated NTM-related protection rates in MENA



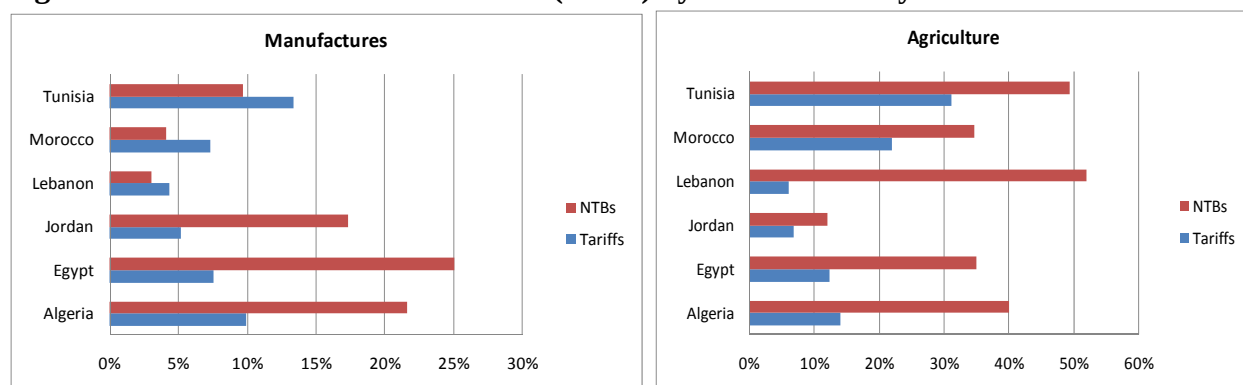
Source: Staff estimates based on tariff data for 2008 and latest official NTBs data. In MENA latest official NTB data reflects information for different years between 1999 and 2003 in different countries.

Tariff and nontariff barriers on agricultural and manufactured imports vary widely across MENA countries. Wide dispersion of tariffs across MENA countries complicates matters further as it implies that industries in these countries benefit to varying degrees from policy-generated transfers. When the costs and benefits of opening up are unevenly distributed, it becomes politically difficult to open markets among regional partners. The fact that members of PAFTA continue to limit access for specific products by using NTBs or not implementing the policies specified in the agreement is evidence of these political tensions. MENA countries have generally failed to seriously implement most PTAs. Fawzy (2003) argues that, on the political front, concerns over the distribution of gains from integration across and within countries, issues of national sovereignty and the cost of adjustment resulting from increased competition, all constrained intra-MENA PTAs. Another limiting factor, with a political dimension, was a lack of mechanisms to compensate losers. Despite the emergence of “credible” PTAs such as PAFTA, the GCC and the FTAs with the EU and the US, it is not known to what extent these are implemented and their impact. Finding out answers to these questions is a research priority in MENA.

The GCC oil exporters have liberalized their trade, while Lebanon and, to a large extent, Morocco have opened their markets for manufactured imports. Tariffs on manufactures are low in Jordan, but NTBs substantially increase the rate of protection there (Figure 23). In Tunisia tariffs on manufactures are above 10 percent, and are high relative to the world average, whereas

in Egypt and Algeria protection is high largely due to NTBs (Figure 23). In agriculture protection is high mostly because of substantial NTBs, except in Jordan where markets for agricultural goods are opened to imports. Only Tunisia and Morocco use tariffs above 20 percent to protect agriculture (Figure 23).

Figure 23. Tariff and nontariff barriers (NTBs) by MENA country



Source: Staff estimates based on tariff data for 2008 and NTBs in different countries for different years between 1999 and 2003.

In most MENA countries other than the GCC oil exporters NTM barriers on manufactured goods are estimated to raise protection substantially. And these barriers appear to be higher for exports coming from within MENA. Indeed, oil importers with EU links, and developing oil exporters such as Algeria encounter much higher overall protection rates on manufactured goods in MENA than the developed countries, India, Latin America, Europe and Central Asia, and East Asia except China (Figure 24). Furthermore, MENA countries do not exploit well opportunities to sell their exports in other MENA countries. Turkey has a better export penetration in the MENA region than the MENA countries themselves (Table 6).

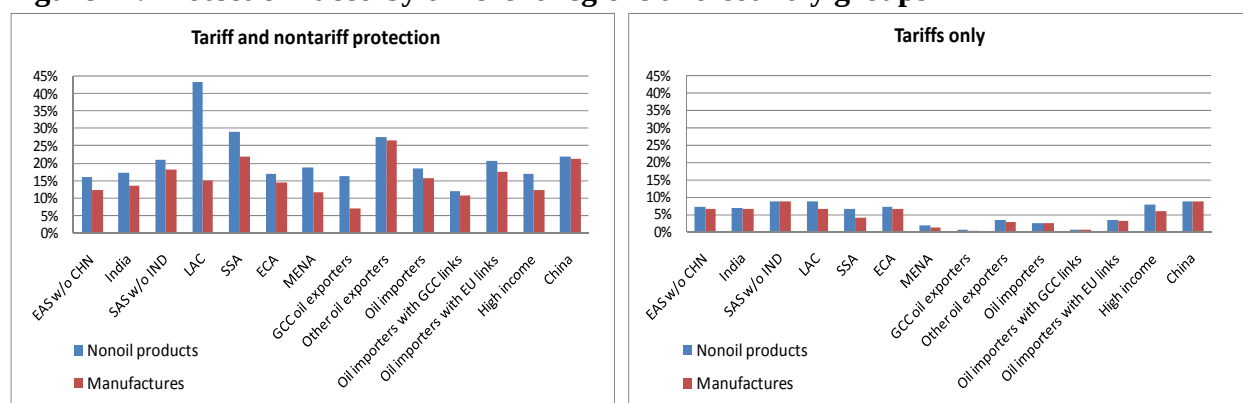
Within the group of oil importers, those with GCC links have better access to MENA markets than those with EU links (Figure 24). Overall protection rates on manufactured goods exported by the oil importers with GCC links within MENA averaged slightly over 10 percent, while the protection on corresponding products exported by importers with EU links averaged close to 18 percent (Figure 24). In addition, political tension between Algeria and Morocco has limited trade between the two countries. Not surprisingly, oil importers with GCC links trade a lot more within the region than those with EU links. In 2007, a third of Jordan's trade and a fifth of Lebanon's trade in goods was intra-regional, compared to 3 percent for the countries in the Maghreb.^{25,26} None of the members of the Agadir Agreement, including Egypt, Jordan, Morocco

²⁵ Source: Rouis (2010).

²⁶ The Maghreb includes Algeria, Libya, Mauritania, Morocco, and Tunisia.

and Tunisia, trade more than 3 percent of total imports and exports with the other three partners, and except for Tunisia, the same is true for the five members of the Arab Maghreb Union.²⁷

Figure 24. Protection faced by different regions and country groups in MENA



Source: Staff estimates based on tariff data for 2008 and NTBs in different countries for different years between 1999 and 2003.

Table 6. Bilateral index of export market penetration of MENA markets

Exporters										
Importer	Algeria	Egypt,	Iran	Jordan	Lebanon	Morocco	Syrian	Tunisia	Yemen	Turkey
Middle East and North Africa										
Algeria	...	29.9	4.9	12.5	13.7	17.0	34.2	38.4	0.8	57.2
Egypt, Arab Rep. of	2.6	...	4.2	26.6	18.3	2.9	19.8	4.7	10.2	431.0
Jordan	1.0	38.4	8.7	...	32.5	1.6	40.5	2.9	3.8	51.8
Morocco	15.5	25.2	4.9	4.4	10.7	...	17.8	23.6	...	40.6
Syrian Arab republic	0.8	19.8	6.4	16.2	19.2	1.1	...	1.3	0.9	28.3
Tunisia	11.0	18.3	2.3	4.3	6.9	24.2	14.5	...	0.8	38.2
Yemen, Rep. of	0.4	26.6	7.5	18.7	12.9	1.0	29.3	1.3	...	...
Turkey	9.8	19.6	25.8	10.8	6.5	16.5	12.2	14.5	0.2	...
Saudi Arabia	5.8	69.9	34.2	56.3	56.1	23.2	72.5	18.7	39.0	62.1

Source: Brenton, Shui and Walkenhorst (2009).

Differences in the rules of origin of various regional agreements generate additional compliance costs and limit intra-regional, intra-industry trade. Most of the intraregional agreements adhere to a 40 percent value-added rule to confer origin, they differ with respect to cumulation rules. PAFTA allows the use of inputs from other member countries toward the value-added target, but the Arab Maghreb Union and the Agadir Agreement do not (Wippel 2005). In addition, the intra-regional rules of origin are markedly different from those pertaining to Euro-Med, so that companies need to run parallel procurement and production processes to satisfy the respective requirements or be limited in their choices of input suppliers.

Cross-country networks of suppliers can be major drivers of integration and intra-industry trade. Over the past two decades, such networks have become prominent in ECA and EAS. In these

²⁷ Source: World Bank (2008a).

regions, systems of interrelated suppliers have taken advantage of wage differentials across countries, geographic proximity and economies of scale from specialization.²⁸ The success of these networks and the intra-regional trade volumes have depended on demand for the final goods outside the region and good logistics. In MENA, logistics performance varies substantially across countries, with GCC and oil importers scoring close to expected levels for their income groups, and nearly all developing oil exporters scoring significantly below the average for their income group.²⁹ Given the evidence that good logistics performance and other trade facilitation measures are associated with increased exports,³⁰ improving logistics should be a priority area, especially for developing oil exporters.

But, MENA countries have long lagged in network trade,³¹ although some Maghreb countries have been catching up in recent years. Tunisia has been most successful in integrating into production networks. Tunisia has the highest share of IIT (40 percent), followed by Morocco and the UAE, and IIT has grown rapidly in Egypt³² and Jordan. Given the high ratio of imports to exports of components, manufacturing appears to be mostly an assembly-type activity directed at domestic markets as opposed to integration into global supply chains. The only country in the region with a significant share of components in its total exports is Tunisia. Its share of parts and components exports in total exports grew from less than 4 percent in 1985 to 10 percent in 2006.

Two different approaches have been used in the literature to assess the magnitude and impact of policy barriers to trade in services (Francois and Hoekman 2010). The first one requires collection of information on applied policies, converting these into coverage/frequency indicators and using the resulting indices to explain observed measures of prices or costs. The second one uses indirect methods including calculation of price-cost margins by sector across countries or gravity regressions to estimate what trade flows “should be” and obtain an estimate of the tariff equivalent of policies from the difference between estimated and observed flows. With this second approach it is impossible to attribute price-cost margins or differences in trade volumes to specific policies. For this reason, most of the literature uses the first approach, although researchers are increasingly using gravity estimations whenever they have access to bilateral trade in services data.

Under the first approach of measuring services trade restrictiveness, the quantification of barriers to trade in services must be preceded by a collection of information on a sector-by-sector basis, relying on

²⁸ See Haddad (2007) for more information.

²⁹ The report measures logistics performance using the Logistic Performance Index (LPI), which ranks logistics quality on scale from 1 (worst) to 5 (best). The logistics performance index surveys logistics professionals about a number of factors affecting logistics in over 150 countries, including customs clearance, infrastructure quality, facility of international shipments, local logistics competence, the ability to track and trace shipments and the timeliness with which shipments arrive. The report benchmarks the performance of MENA countries against others by regressing LPI on the logarithm of 2009 GDP per capita expressed in 2005 PPP\$.

³⁰ See Behar et al. (2009) and Hoekman and Nicita (2008).

³¹ Source: Yeats and Ng (2000).

³² Egypt however needs to improve logistics as it has a low LPI score relative to the score expected for its income level.

government documents and the expertise of sector specialists (Mattoo, Stern, & Gianni, 2008). Many studies are based on “regulation” questionnaires developed by the OECD and the Productivity Commission of Australia that attempt to capture all the regulations that can affect significantly entry, competition and trade in services. The Services Trade Restrictiveness Indices (STRI) from the Global Services Policy Restrictiveness database, compiled by the Bank and used in this paper, is also based on this type of questionnaires. The latter are submitted to regulators, administration and private sector in order to collect qualitative information on entry, competition and business conduct barriers in services sectors.

A number of steps need to be followed. First, one collects qualitative information about regulatory restrictions affecting services delivery in a particular country. Then, one converts it into a quantitative index (or indexes) using weights that reflect the relative severity of the different restrictions. The general approach in Findlay and Warren (2000) - used in many studies - is to convert qualitative information about regulatory restrictions into a quantitative index, using a priori judgments about the relative restrictiveness of different barriers (i.e., the weights of the restrictiveness index components). This is generally less contentious within a given category of barriers than between. For example, it makes sense to score a regime that restricts foreign ownership to 25 percent or less as being twice as restrictive as one that restricts foreign ownership to 50 percent or less. What is less obvious is how to weigh the scores on foreign ownership restrictions together with those on licensing requirements, or those on restrictions on lines of business. Nevertheless, some of the inherent arbitrariness of the weighting procedures can be tested empirically. Finally, the information on barriers should be captured following the 4 modes of services deliveries recognized by the WTO - cross-border trade (Mode 1), movement of customer to the country of the provider (Mode 2), sales of services through an offshore affiliate (Mode 3) and the (temporary) movement of persons to provide services (Mode 4).

The Services Trade Restrictiveness Indices (STRI) from the Global Services Policy Restrictiveness database compiled by the World Bank shows that restrictive policies are observed in MENA in the five key sectors – financial services, telecommunications, retail distribution, transportation and professional services – covered by the survey which provides information for the STRI. Indeed, the STRIs by region suggest that applied policies governing trade in services in the MENA region are more restrictive than those in other regions except East and South Asia.

The fact that the fastest-growing regions seem to exhibit restrictive services policies has been recognized as a puzzle. On the one hand, unlike tariffs, services regulation could be prudential, so one cannot conclude a priori that less is always “better”. On the other hand, the answer depends on the proper counterfactual, and it might well be that in line with conventional wisdom growth rates would have been even higher had services regulation been more liberal. In the case of East Asia, growth rates have been driven by merchandise exports, so firms might have been shielded to some extent from the adverse effects of services barriers. For South Asia, it is harder to explain the co-existence of high services trade restrictiveness in most sectors including

professional services, transport, and telecoms that have higher STRIs than MENA and other regions, and remarkable growth of South Asia's services exports. More research is needed to link the applied policy data to outcome data of interest such as FDI or foreign presence, ideally taking into account firm characteristics, or to determine to what extent current protection levels – similar to protection levels in other fast-growing regions – inhibit growth.

The high restrictiveness index for the GCC group of countries also appears as a puzzle. Generally, high income countries tend to have lower barriers to trade in services as shown by Gootiiz and Mattoo (2009).³³ And while the GCC telecom sector is highly protected, the GCC countries export communication services successfully. The GCC countries also appear remarkably open to trade in services under mode 4. The total number of foreign workers in the GCC was estimated at 12.5 million or nearly 40 percent of the population in 2007, compared to 70 million migrants in Europe (or 10 percent of the population) and 50 million in North America (or 14.2 percent of the population). While many of these foreign workers do not work in services but in agriculture and industry, a very large share are employed as service workers in retail, transport, tourism, real estate, and hold professional positions in banking, education and other service industries.

Furthermore, while de jure policies indicate high obstacles to FDI in services, observed flows have been substantial. For example, FDI from Asia into the Gulf has increased at a breath-taking pace, and not all of it has gone into the oil and gas sector but instead has flown into transport and tourism infrastructure, and other services industries.³⁴ This situation might reflect the fact that de facto policies could be relaxed and rendered ineffective as foreign investors have sought to involve GCC nationals as partners in their business ventures to avoid the high minimum employment requirement of nationals and other discriminatory policies. Unfortunately, there is no way to measure the magnitude of the bias. Alternatively, the STRI index might be biased upward as it excludes tourism and real estate which might be less protected. It is clear that more work is needed to understand the effective protection in services in the GCC group.

Regional trade agreements have not helped to liberalize intraregional trade in services in developing MENA. A recent study by the World Bank shows that restrictions on trade in the five sectors surveyed are much steeper in the PAFTA member countries than in the rest of the world (Borchert et al. 2010).³⁵ In reality, many services sectors in the region are liberalized, but only to a limited extent and governments tend to retain control, which leads to lack of transparency and discretion in how restrictions are applied.³⁶ Foreign equity limits, for example, have been relaxed in most MENA countries in recent years, yet many service markets remain dominated by state-

³³ Gootiiz, B. and A. Mattoo (2009) "Restrictions in Service Trade and FDI in Developing Countries." Mimeo.

³⁴ Asian countries signed contracts worth \$500 billion to complete infrastructure projects in the Middle East (Kemp 2010).

³⁵ The sectors are financial and insurance, retail, telecommunications, transportation, and professional services.

³⁶ Source: Case studies conducted in Morocco, Tunisia, Egypt, Jordan and Lebanon.

owned or domestic enterprises. High levels of state control persist in such cases through conflicting regulations that protect current market structures.

Restrictions that discourage FDI inflows into services are particularly harmful as they have a negative impact on the potential size and productivity of firms, the technology used by firms, the markets firms choose to operate and the quality of services. For example, Algerian service companies are frequently informal and inward-oriented (Cattaneo, Ighilahriz, Lopez-Calix and Walkenhorst 2010), and in a number of countries some services sectors are dominated by SMEs that do not have the means or incentives to expand operations. Such is the situation in Tunisia's legal, and information and communication technologies sectors (Cattaneo, Diop and Walkenhorst 2010).

In banking, Morocco and Tunisia display many restrictions, in particular cross-border and consumption abroad restrictions linked to their capital account regime which is only partially open. Egypt has an intermediate level of openness driven by mode 2, whereas restrictions span across modes 1, 3 and 4. Jordan's banking sector is relatively open, with restrictions only in modes 1 and 4, whereas Lebanon's banking sector is the most open in the region, with nearly no restrictions across modes 1, 2, and 3.

In insurance, Egypt is among the least restrictive countries in non-GCC MENA, reflecting the liberalization of the sector in recent years. However, specific restrictions apply on commercial presence, namely the Economic Needs Test. On the other end of the spectrum, Morocco and Tunisia are among the most restrictive due mainly to restrictions on cross-border and consumption abroad. For Morocco, important non-discriminatory concessions have been made as part of its FTA with the United States,³⁷ and once effective, the provisions in that agreement will significantly open the sector.

MENA has been ranked as the most restrictive region for trade in fixed telecom services among a group of Asian and transition economies.³⁸ However, in line with recent reforms, the sector is opening up to trade and foreign presence. Morocco and Jordan have the most open telecom sectors in the region, whereas Egypt and Tunisia still lag behind despite the very recent opening of Tunisia's fixed line telephony to a private operator.

In maritime transport, major restrictions exist in Morocco and, to a lesser degree, Egypt. In contrast, Tunisia and Jordan have fairly open maritime sectors. Across the MENA countries, it is common to award preferential treatment to ships flying the national flag. Jordanian and Egyptian flag carriers, for instance, are given discounts on prices such as port services. Egypt also gives flag carriers priority access to the cabotage market. In Morocco, regular shipping line services established in the country must fly the national flag. While open to foreign carriers, non-liner shipping is also restricted. Foreign shippers need to contract Moroccan liner intermediaries who

³⁷ Morocco's FTA with the USA was signed in 2004.

³⁸ Source: Dihel & Shepherd (2007).

have the exclusivity of chartering foreign vessels. However, it is expected that Morocco will remove this restriction as it strives to converge with European maritime legislation under the EU Action Plan. Finally, in air transport, Egypt displays high restriction levels in modes 1 and 2. On the other hand, Morocco, the most open in modes 1 and 4, has recently introduced many air service reforms in an effort to promote growth in the tourism industry, but it remains more closed than Jordan which overall has the most open sector.

Converting services trade into an engine for growth requires emphasis on quality and efficiency. Reputation is a key to success in services trade, and competitiveness could be increased through improved efficiency at same or higher quality output (Pigato 2009). 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.

Impediments vary by sector and country, and so do the specific reforms needed. In Tunisia, growth in services exports has been aided by among other strengths, the large pool of skilled engineers willing to work at relatively low wages and the geographical and cultural proximity to Europe. Tunisia's heavy investment in human and physical capital, especially higher education and telecommunication networks, has enabled substantial expansion over recent years of knowledge-based sectors, notably medical services, which attract substantial number of foreign patients; engineering and architecture; accounting; legal services, and ICT-enabled services supplied by telecom and internet providers. Substantial growth potential still exists for Tunisia in medical tourism, back office outsourcing and information technology enabled services.

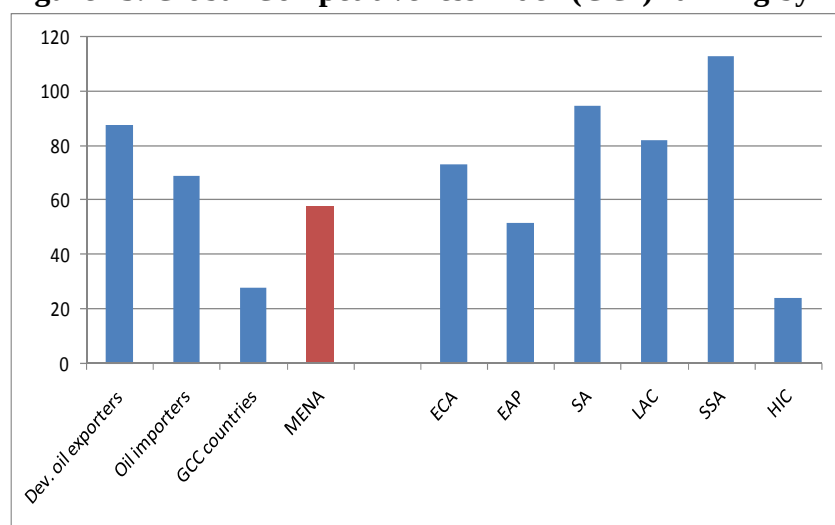
To sustain the growth momentum, however, Tunisia needs to (i) increase competition in fixed-line telecommunications and ease restrictions on foreign entry into professional services so as to lower service provision costs; (ii) improve payment discipline of public procurement services to avoid exacerbating financial difficulties facing SMEs; and (iii) strengthen selected areas of education and training such as nursing and managerial education so as to ease staffing bottlenecks for aspiring exporters (Cattaneo, Diop and Walkenhorst 2010). Furthermore, Tunisia's telecom reforms need to extend from liberalization of private mobile market to include competition in other segments of the sector with potential impact on trade, such as internet service provision and land line to reduce cost of international communications.

In Morocco, a gradual regulatory alignment with the EU in the context of the European Neighborhood Policy arguably offers the country the opportunity to anchor productivity-enhancing reforms, particularly in air transport, road transport and energy (Diop 2010). This would require convergence of Morocco's policy framework with EU rules pertaining to competition and state aid.

In Algeria, current policies that promise to boost the further development of service trade include: (i) the privatization program; (ii) the tourism development strategy;³⁹ (iii) an enhanced regulatory regime for services aimed at expanding the domestic market and promoting improved efficiency of domestic producers; and (iv) international trade agreements that may play a complementary role by serving as anchors for the reform process and shielding the government from domestic lobbies. International experience and research supported by local data and interviews indicate that more openness in private services resulting from Algeria's privatization program is essential to attract sufficient know-how and investment capital from domestic and foreign sources (Cattaneo, Ighilahriz, López-Cálix and Walkenhorst 2010).

Numerous other factors impede export growth and hurt the productivity of export-oriented firms.⁴⁰ A recent report on private sector development in the region estimates that MENA's average total factor productivity lags behind the productivity in fast-growing developing countries. It was assessed at less than half of the total factor productivity in Brazil and 62 percent of the productivity level in China, according to data from recent enterprise surveys. The region's ranking in the Global Competitiveness Index is higher than those of most other regions except East Asia and the advanced economies (Figure 25), but competitiveness and total factor productivity levels vary substantially within MENA. Firms from GCC countries are much more productive than firms from developing MENA, while developing oil exporters' firms are least productive. Assessments based on labor productivity measures confirm these findings.

Figure 25. Global Competitiveness Index (GCI) ranking by region, 2010



Source: World Economic Forum (2010).

³⁹ The tourism development strategy aims at better exploiting the country's natural and cultural endowments, improving the quality of services and reputation of the country and rehabilitating tourism infrastructure.

⁴⁰ Export-oriented firms are defined as those with at least 10 percent of sales destined for foreign markets.

A number of factors have hurt the productivity of export-oriented firms and have discouraged private investment, in the process muting the investment response to reforms in the region.⁴¹ Recent enterprise surveys for 10 MENA countries⁴² suggest that corruption, taxes, informal competition and access to finance are among the top concerns of the average MENA firm, and these rank as top concerns for export-oriented firms in the region as well (Figure 26). The urgency with which issues related to corruption and privileged treatment need to be tackled became clear this year when uprising swept through the region. These uprisings were triggered by frustration and deep feelings of unfairness and humiliation which in turn reflect corruption that has reached a scale unseen before and lack of level playing field in many aspects of life, including access to resources, services and information. These issues can be seen as both triggers of revolts and the most binding constraints to inclusive growth in the region.

However, there are major differences between the top concerns of export-oriented firms in the GCC oil exporters, developing oil exporters and oil importers. In the GCC countries, access to finance and shortage of skills are cited as top concerns for export-oriented firms (Figure 27). Other sources⁴³ confirm that access to finance is a particular problem for SMEs in the GCCs, while employability concerns linked to basic and advanced skill acquisition are two areas in which GCC countries rank lowest, according to the Global Competitiveness Index (Figure 27).⁴⁴ Innovation and technological readiness also appear to be areas in need of special attention in the GCC countries as these countries score much lower than their peer HIC group (Figure 27).

In developing oil exporters, taxes and corruption are the most frequently-mentioned major complaints by exporting firms (Figure 26), but due to state dominance other issues, especially inefficiencies in input and goods markets⁴⁵ and poor financial market development, present even bigger problems for the competitiveness of export-oriented firms (Figure 28). In oil importers, corruption and macroeconomic uncertainty top the list of major constraints to growth (Figure 27). Macroeconomic stability is indeed an area of concern as suggested by the low ranking of oil importers on this pillar of the Global Competitiveness Index (Figure 32), but an even bigger weakness is the inefficient and inflexible labor market. Firms in oil importing countries also appear to fall behind East Asia in terms of innovation efforts (Figure 32). The next few sections provide an in-depth discussion of the major stumbling blocks to firms' competitiveness.⁴⁶

⁴¹ Source: World Bank (2009).

⁴² Survey data were available for the following GCC countries, including Oman (2003) and Saudi Arabia (2005), developing oil exporters, including Algeria (2007), Syria (2003) and Yemen (2005), and oil importers, including Egypt (2006), Jordan (2006), Lebanon (2006) and Morocco (2007).

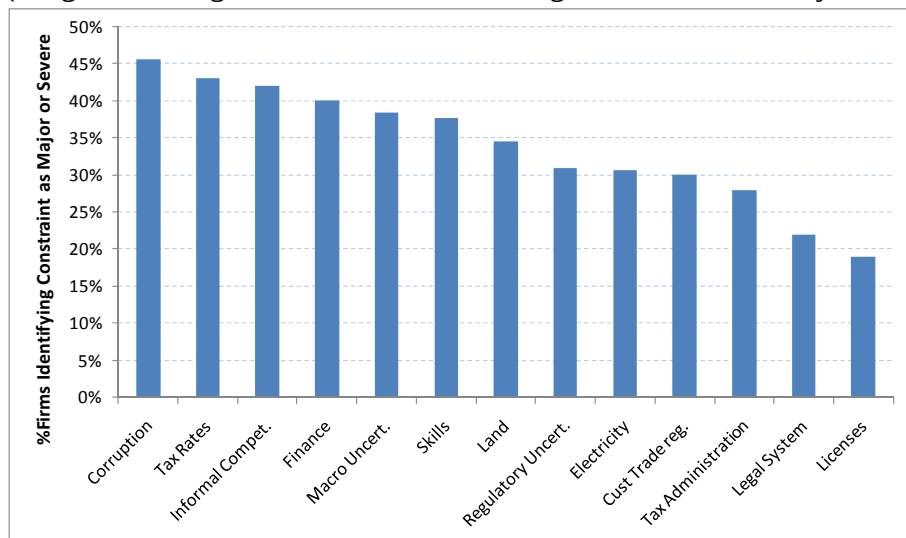
⁴³ Source: background papers for the upcoming MENA finance flagship.

⁴⁴ Market size is cited as the biggest obstacle to realizing efficiencies, but the GCC countries have taken measures to address this constraint by opening their markets for goods. Still, protection in services remains high and more work is needed to understand the complexities of such protection and the rules constraining firms in the service sector.

⁴⁵ The developing oil exporters are mostly state-dominated economies in which market inefficiencies are expected to be pronounced.

⁴⁶ Labor markets issues are the topic of an upcoming MENA report titled *Opening up Job Opportunities for All: Employability in the Middle East and North Africa Region*.

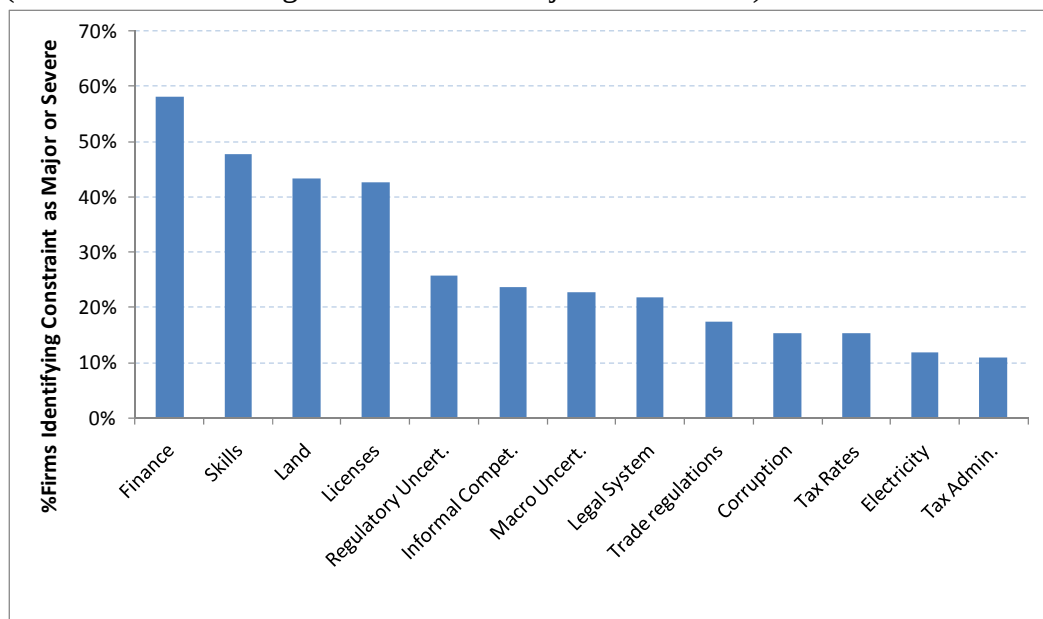
Figure 26. Leading constraints to export-oriented firms in MENA region
(weighted average of share of firms ranking a constraint as “major” or “severe”)



Source: Staff estimates based on recent enterprise survey data for 9 MENA countries.

Note: Individual country outcomes were weighed with the relative sizes of countries' labor forces. Results do not change when population numbers are used as weights instead.

Figure 27. Leading constraints to export-oriented firms in GCC oil exporting countries
(share of firms ranking a constraint as “major” or “severe”)

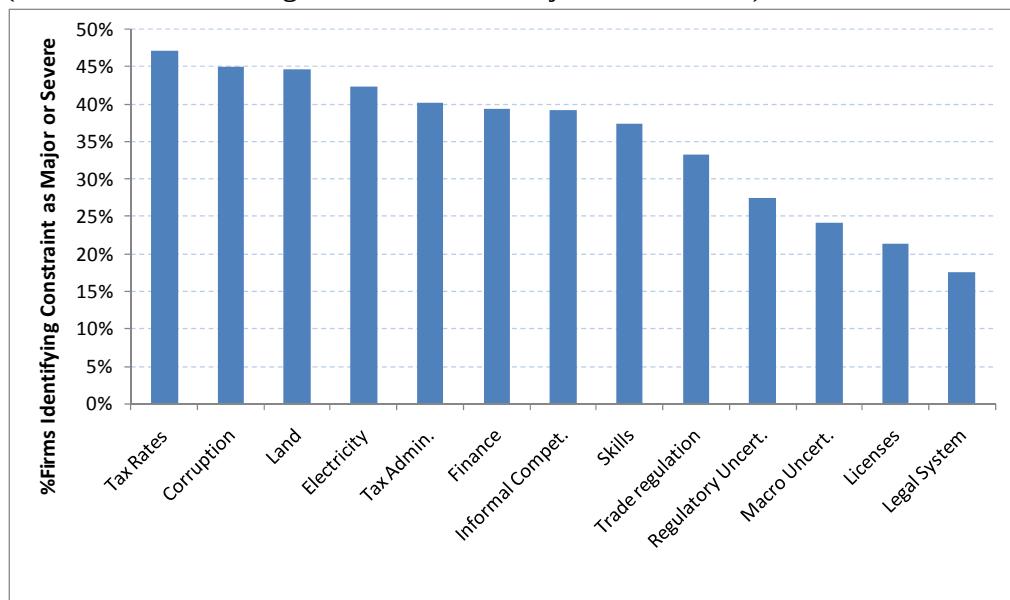


Source: Staff estimates based on recent enterprise survey data for 2 GCC countries – Saudi Arabia and Oman.

Note: Individual country outcomes were weighed with the relative sizes of countries' labor forces. Results do not change when population numbers are used as weights instead.

Figure 28. Leading constraints to export-oriented firms in developing oil exporting countries

(share of firms ranking a constraint as “major” or “severe”)

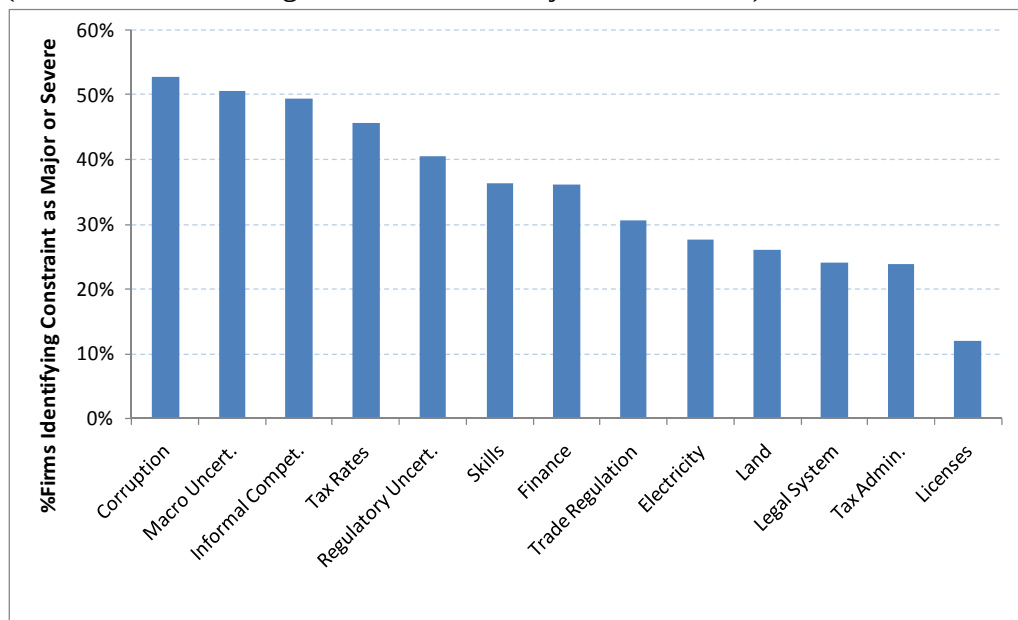


Source: Staff estimates based on recent enterprise survey data for Algeria, Yemen and Syria.

Note: Individual country outcomes were weighed with the relative sizes of countries' labor forces. Results do not change when population numbers are used as weights instead.

Figure 29. Leading constraints to export-oriented firms in oil importing countries

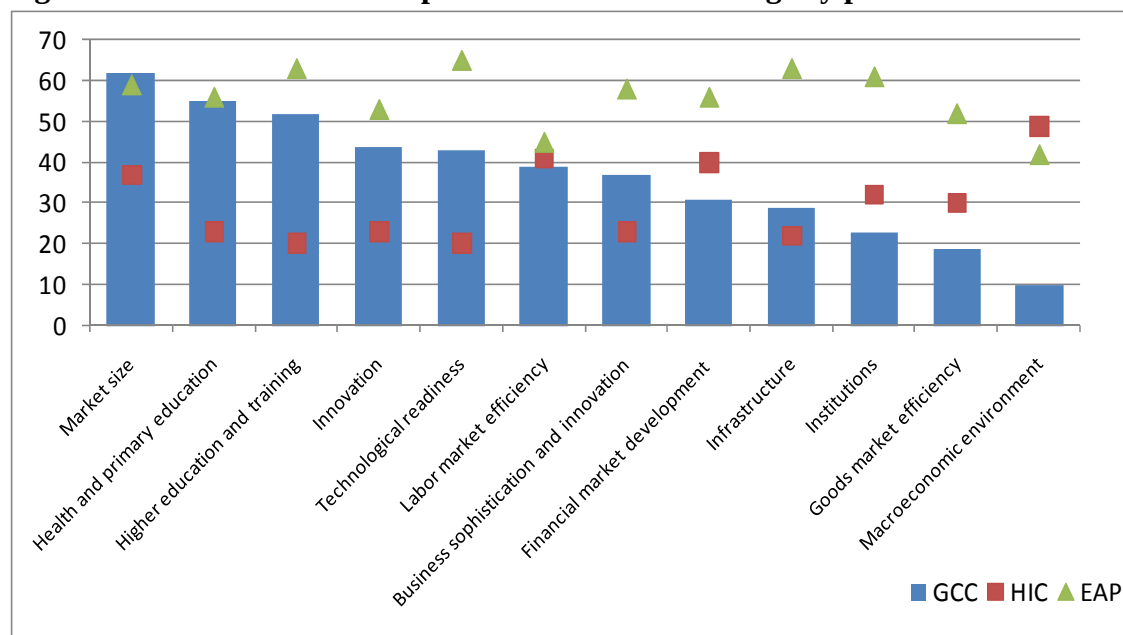
(share of firms ranking a constraint as “major” or “severe”)



Source: Staff estimates based on recent enterprise survey data for Egypt, Jordan, Lebanon, and Morocco.

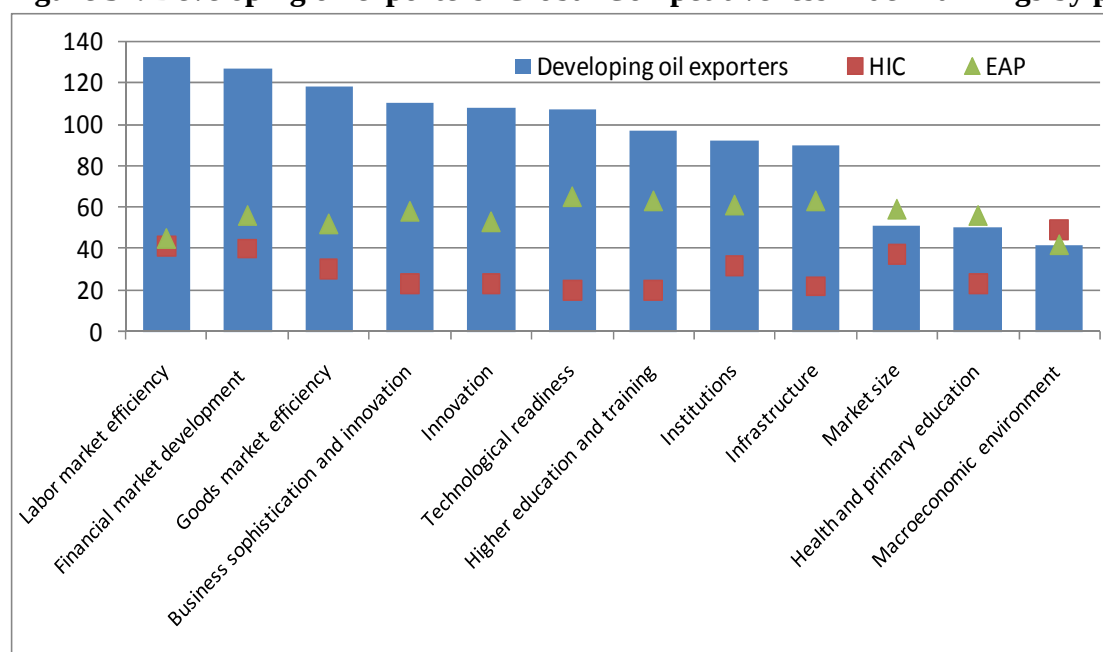
Note: Individual country outcomes were weighed with the relative sizes of countries' labor forces. Results do not change when population numbers are used as weights instead.

Figure 30. GCC's Global Competitiveness Index rankings by pillar



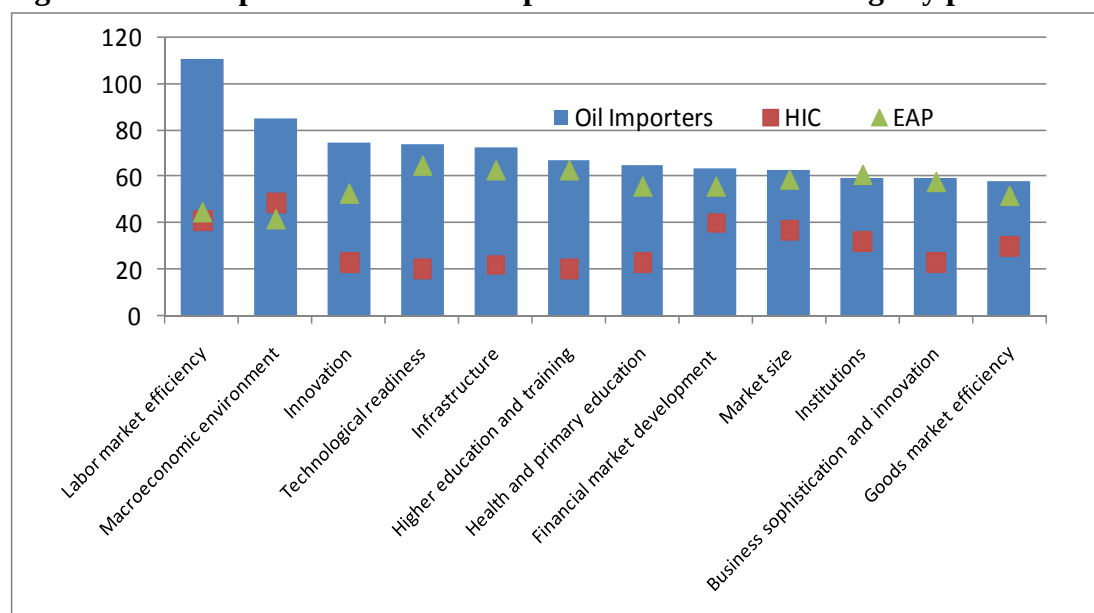
Source: Global Competitiveness Report 2010.

Figure 31. Developing oil exporters' Global Competitiveness Index rankings by pillar



Source: The Global Competitiveness Report 2010.

Figure 32. Oil importers' Global Competitiveness Index rankings by pillar



Source: The Global Competitiveness Report 2010.

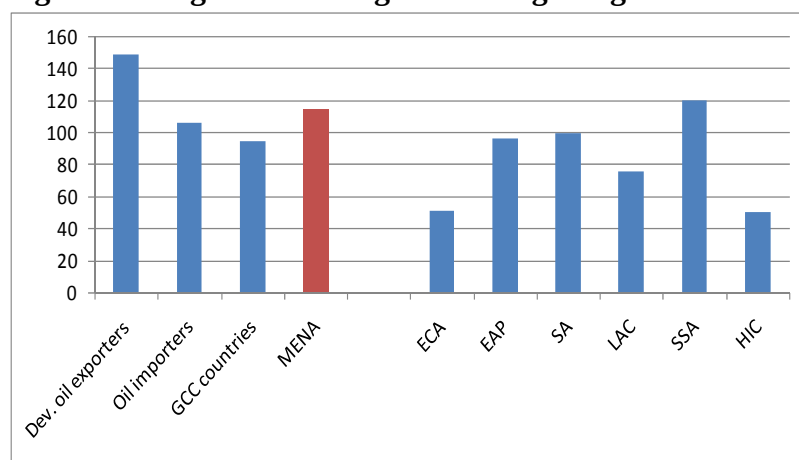
Access to finance is limited, especially for small enterprises. It is a top concern for export-oriented firms in the GCC oil exporters and the fourth major concern for exporters in the region (Figure 27 and Figure 26). Analysis presented in MENA's private sector flagship report (World Bank 2009) confirms that credit rationing is high among MENA countries, especially the developing oil exporters which rank extremely low in terms of access to credit, according to the World Bank's Doing Business indicators (Figure 33) and World Economic Forum's Global Competitiveness Index (Figure 31).

The problem of access to finance in MENA reflects financial intermediation issues rather than low savings (Figure 34). Indeed, all GCC oil exporters and most developing oil exporters have ample domestic savings so access issues reflect barriers linked to widespread state ownership of banks and financial market underdevelopment, especially in developing oil exporters, and poor access to finance for SMEs in the GCC countries. According to the global competitiveness index, financial market development is an area of relative strength in the GCC countries (Figure 30).

Low transparency in bank operations and high informality in the enterprise sector are linked to high collateral requirements, fairly high levels of nonperforming loans, and low rates of access to bank loans. Banks often use collateral requirements as a credit-rationing tool rather than to allocate credit based on risk analysis. Furthermore, the required collateral is among the highest in the world, indicating that collateral legislation is inefficiently enforced and not trusted by lenders. Most importantly, state-owned banks have traditionally served as channels of political patronage and have supported state-owned firms or channeled credit to well-connected private enterprises. And private banks in the region have not remained immune to the problems of public

banks as supervision and regulation of credit markets is open to political interference and discretionary enforcement (World Bank 2009).

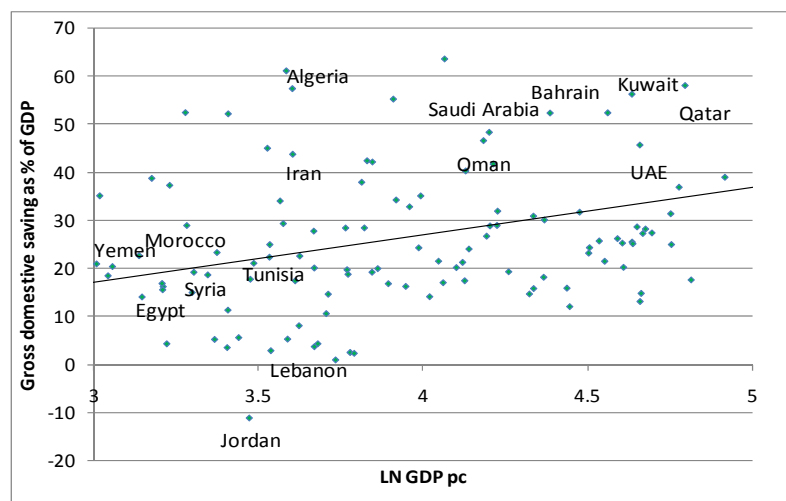
Figure 33. Regional ranking of ease of getting credit



Source: World Bank, Doing Business Indicators (2010).

Small enterprises face greater difficulties accessing finance than large enterprises because banks perceive them as less financially transparent. Small firms are also less capable of meeting the collateral requirements of banks, and face higher transaction costs per loan. In MENA small enterprises are twice as likely to be credit constrained as large firms, and only one in five firms have a loan or a line of credit. Loans to SMEs account for only 8 percent of total lending in the region. Entrepreneurs report difficulties in accessing capital from the domestic financial system to start a new business, and finance export discoveries (Nassif 2009).

Figure 34. Gross domestic saving, 2007



Source: World Bank.

Access to finance for SMEs appears to be more constrained in MENA than in any other region in the world, and there are significant differences between GCC and developing MENA countries, according to work conducted as part of World Bank's upcoming MENA finance flagship report.⁴⁷ The average share of SME lending in the GCC group of countries is only 2 percent,⁴⁸ while the share of SME lending in developing MENA is 14 percent.⁴⁹ The low share of SME lending in the GCC oil exporters reflects to a large extent the structure of oil-based economies. They are less diversified than the oil importers, dominated by large enterprises, and characterized by relatively small non-oil traded sectors. Moreover, GCC countries tend to have small populations, and the nationals tend to find attractive positions in the public sector, which may also discourage risk-taking in the SME sector. These factors set "natural" limits to the size of the SME sector of the GCC countries, especially in the non-oil sectors producing traded goods. By contrast, in developing MENA there is scope for SME growth across a wider range of economic sectors, including traded sectors, and also as part of supply chains linked to large enterprises.

Even though the actual SME lending in the region is low, there is substantial room for further lending as shown by banks' long-run targets for SME lending. The drivers that encourage banks to engage in SME lending include the potential profitability of the SME market, the saturation of the large corporate market, the need to enhance returns, and the desire to diversify risks. Targets are significantly lower in the GCC group (about 12% of total lending), revealing that the banks themselves have concluded that there are "natural" limits to profitable SME lending in oil-based economies. In the case of developing MENA, the long-run target is much higher and around 29% of total lending. This suggests that if constraints can be eased access to finance for SMEs can improve significantly.

Banks identify two major constraints to SME lending including the lack of SME transparency and the weak financial infrastructure, in particular weak credit information, weak creditor rights and collateral infrastructure. MENA compares poorly with other regions on these aspects of doing business. MENA has the lowest legal rights index among all the regions, and even though the credit information index has improved in recent years, the coverage of credit reporting systems is still very limited. Collateral regimes are also considered weak and inefficient by banks in MENA. While a relatively low share of banks reports serious problems with the registration of fixed collateral, a high share of banks reports that registries of movables remain very deficient. Enforcement of collateral is an even bigger problem, especially for movables, but also for fixed collateral in the case of banks in developing MENA. Finally, an even larger share of banks

⁴⁷ In order to understand the supply of SME finance in MENA, a bank-level survey was conducted as part of the upcoming MENA financial flagship report. The survey covered the following themes: i) strategic approach to SME lending; ii) main products offered to SMEs; iii) risk management techniques employed; and iv) SME lending data. The response rate for the survey was high as 139 banks from 16 of the 18 MENA countries sent in responses. These banks account for about half of MENA banks and almost two thirds of the banking system loans.

⁴⁸ The share of SME lending is consistently low across all GCC countries.

⁴⁹ The survey included the following countries in developing MENA: Egypt, Iraq, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia and Yemen. There is more variation in the share of SME lending across countries within developing MENA.

reports problems in selling the seized collateral. Again, this is true for both GCC banks and banks in other MENA countries, and applies to all types of collateral. Thus, creditors perceive high risks in SME lending that can only be partially offset through greater reliance on relationship lending, or through the use of other lending techniques such as leasing and factoring, or still through access to a guarantee scheme.

Several MENA countries have introduced credit guarantee schemes and other policy interventions such as interest subsidies, and exemptions on reserve requirements to compensate for these weaknesses in financial infrastructure. These interventions may be well justified, but they should not be the main components of the architecture of SME finance in the MENA region. Improving financial infrastructure should be the priority item in the policy agenda of MENA countries. This will entail expanding the range of movable assets that can be used as collateral, improving registries for movables, and improving enforcement and sales procedures for different types of collateral. It also entails upgrading public credit registries, and more importantly, introducing private credit bureaus capable of significantly expanding coverage and the depth of credit information.

Competition policy can also contribute to further SME lending. Survey results suggest that there are private banks that have more effective lending technologies, and that are able to generate and manage a significant SME portfolio, even within weak enabling environments. The entry of these banks in other MENA countries could contribute to more SME lending, both directly and through spillover effects. In this case, the policy implication is to ensure that entry requirements are not overly restrictive and that banking markets remain contestable.⁵⁰ Lastly, it is important to recognize that the potential for SME finance is also a function of the structure of the economy and the size of the SME sector. In the case of developing MENA, there is huge potential for expanding SME finance, with large numbers of smaller enterprises underserved and low levels of bank competition to serve them. In the case of GCC countries, the size of the SME sector may remain more constrained by the nature of oil economies, but there is also scope for further expansion of SME finance, especially if access is also extended to resident non-nationals.

Governance issues impede reform implementation, raise uncertainty and lead to uneven playing field. Governance issues top the list of major concerns of export-oriented firms in developing MENA. A serious problem is the discretion available to bureaucrats in implementing regulations. This creates an unlevel playing field and encourages the pursuit of privileged access. Coupled with barriers to entry and exit, this has created an environment of private sector stagnation. Furthermore, unequal, discretionary, and preferential implementation of announced policies are important sources of uncertainty in policy implementation affecting many areas including trade policy, entry and exit regulations, product and factor market regulations. The way policies are prepared and announced by governments also raises policy uncertainty. Lack of consultation

⁵⁰ Anzoategui et al. (2010) show that there is a higher rejection of banking licenses in MENA than in other regions.

with the business community and opacity in reform design lead to unpredictability and discourage investors. Furthermore, policy reversals are common in some countries and reduce the credibility of reforms. Policy changes are often unannounced creating confusion about the rules governing business operations for managers, government administrators and investors.

Regulatory ambiguity expands the opportunity for discretion in public agencies and enables harassment, sometimes in the form of frequent inspections, difficulties in obtaining licenses, clearing customs, resolving conflicts or obtaining permits to use land and other resources and inputs. Discretionary implementation of the rules can impose a burden on firms in any area in which they interact with the state and regulatory agencies.

Regulatory opacity could also lead to political capture as the influential and powerful benefit from discretion and preferential access to public benefits while the rest develop a sense of unfairness. Export-oriented firms in oil importing countries consider this issue a top concern (Figure 29). They are concerned that privileged large competitors evade the burden of taxes and regulations or get favorable treatment and access to privileges. In Lebanon, entrepreneurs identify several types of privileged firms, including firms receiving government subsidies, firms with favored access to credit, infrastructure or customers, firms that conspire to limit access to markets and supplies for other firms, firms that violate copyrights, patents or trademarks, and avoid different types of taxes and regulations. Formal firms are concerned that small informal enterprises pay few taxes and get an unfair advantage over them.

Macroeconomic uncertainty is a top concern for export-oriented firms in the oil importing countries (Figure 29), which rank low in terms of macroeconomic environment in the World Economic Forum's (WEF) Global Competitiveness Index (GCI). The low ranking reflects the fact that oil importers in the sample have had limited fiscal space in the past decade. Consequently, these countries have been vulnerable to external shocks, despite relatively diversified economic bases and favorable macroeconomic environment. By contrast, GCC oil exporters, and some of the developing oil exporters in the sample have had ample fiscal space to soften the impact of external shocks on their economies. The GCC countries demonstrated their commitment to macro and financial stability during the past financial and economic crises, including the most recent one. Indeed, the GCC's rank in terms of macroeconomic environment is high both compared to other components of the GCI and the ranking of HICs and EAS on this component (Figure 30). Thus, it is not surprising to find out that only slightly more than 20 percent of export-oriented firms consider macroeconomic instability as a major or severe constraint to their business operations, compared to 50 percent in oil importing countries.

Skill shortages in the GCC states are an acute but old problem. GCC export-oriented firms cite skills as one of the top constraints to their business operations (Figure 27) – an area of particular weakness for the GCC countries according to the WEF's Global Competitiveness Report (Figure

30). However, the problems faced by firms as they search for qualified labor are not new and have existed for more than 30 years. The regional labor markets have been characterized by heavy reliance on expatriate labor, high unemployment among nationals, huge wage differentials between national workers and expatriate workers, and a strong preference by nationals for work in the public sector.

On the supply side, the large wage differentials have discouraged GCC nationals from acquiring skills. Even if they had the skills to obtain private sector jobs, they would be competing in the labor markets with foreign nationals who would be interested in obtaining the same jobs at much lower wages. Thus, public sector jobs have remained an attractive alternative. On the demand side, firms have had to compete with each other for the few skilled domestic workers most companies are eager to hire in an effort to promote skilled nationals. Firms have avoided recruiting and training nationals, as these are not expected to stay long in the same company. So, firms have preferred to import skilled foreign workers even at the cost of dealing with layers of bureaucracy.

There are no quick solutions to the problem of skill shortages. In the short term, GCC countries could continue investing in skills, on the supply side, and in improved enforcement of employment targets for nationals in the private sector, on the demand site. Governments could facilitate the matching of labor supply and demand through improved information and intermediation services by strengthening the collection and use of labor market statistics, and employment services across the GCC countries. In the long term, the goal could be to gradually transform the economy away from the current low-wage, low-productivity equilibrium dependent on expatriate workers towards a high-productivity one in which employers offer wages sufficiently high to attract nationals through economic incentives. It would be critical however to coordinate the migration reform and the reforms required to transition to technology intensive production that relies on fewer but highly qualified workers, and modernized equipment.

A focus on technology is central to MENA's efforts to improve competitiveness. Technology has been central to both economic growth and many elements of social welfare that are only partly captured by standard measures of GDP, including health, education, and gender equality. A broad definition of technology encompasses the techniques by which goods and services are produced, marketed, and made available to the public. Thus, technological progress at the national level can occur through scientific innovation and invention, through the adoption and adaptation of preexisting, but new-to-the-market, technologies, and through the spread of technologies across firms, individuals, and the public sector within the country. Total factor productivity, which is one measure of technological progress,⁵¹ explains much of the differences

⁵¹ Total factor productivity reflects factors other than pure technical change such as increasing returns to scale, markups due to imperfect competition, and sectoral reallocations.

in both the level and rate of growth of incomes across countries (Easterly and Levine 2001; Hall and Jones 1999; King and Levine 1994). Simon Kuznets, among others, argued that the rapid economic growth in developed nations had stemmed from the systematic application of science and technology to the production process.

The level of technology achieved by a country is in general positively correlated with income levels.⁵² However, there is considerable variation in countries' technological achievement within income groups because of differences in the nature of production processes, the extent to which governments have given priority to and succeed in delivering services with a strong technological component, and the ease with which technologically sophisticated firms have been able to grow and expand their weight in the overall economy. These factors, which are summarized by the concept of technological absorptive capacity, determine to a significant degree the level of technological achievement to which a country is converging. Differences in absorptive capacity help explain why countries at similar income levels can have such different levels of technological achievement.

MENA, despite some progress in the past two decades, lags behind other developing regions, such as EAS, ECA and LAC in terms of exposure to external technology, penetration of old and new technologies and scientific innovation, as measured by the technological achievement index (TAI).⁵³ Regional averages however hide a great heterogeneity between countries. For instance, Tunisia, which is among the most diversified economies in the region, has been scoring consistently better than other countries in the same group. The GCC countries, such as Kuwait or Qatar and Bahrain, score closer to the level of technological achievement their income levels would predict, and therefore higher than the regional average. Overall, up to the year 2000 when the latest data on TAI are available, MENA countries, with a few exceptions, have scored below their peers in the same income group (Table 7).

⁵² See World Bank (2008b).

⁵³ Technological achievement is measured indirectly since technology does not have easily counted physical presence (see Burns 2009). TAI, published by the United Nations Development Programme (UNDP) is an index that incorporates information on the diffusion of technologies and indicators of innovation such as the number of patents. Some other indexes measuring technological achievement emphasize inputs into technological advances, such as educational levels, the numbers of scientists and engineers, R&D expenditures or R&D personnel. One example of such an index is the *Index of Innovation Capability* of the United Nations Conference on Trade and Development (UNCTAD, 2005). Still others focus on outputs, such as the share of high-technology activities in manufacturing value added and exports. The *Index of Competitive Industrial Performance*, published by the United Nations Industrial Development Organization (UNIDO) is such an index. The *National Innovative Capacity Index* focuses on the mechanisms by which technological progress is achieved (Porter and Stern 2004).

Table 7. Technological Achievement Index

	1990	2000
East Asia & Pacific	0.14	0.19
Europe & Central Asia	0.13	0.20
Latin America & Caribbean	0.11	0.15
South Asia	0.10	0.13
Sub-Saharan Africa	0.08	0.11
Middle East & North Africa	0.10	0.14
Egypt	0.10	0.13
Tunisia	0.12	0.16
Syria	0.09	0.12
Kuwait	0.11	0.18

Source: World Bank (2008b)

As shown in World Bank (2008b), the higher the underlying level of technological absorptive capacity, the higher the level of technological achievement to which a country is converging over time. The low level of technological achievement in MENA is therefore directly correlated with the low level of technology absorption, which depends on the quality of macroeconomic and financial management, skills and institutions. The index of Technological Adaptive Capacity (TAC) offers one way to measure technology absorption.⁵⁴ According to this index, during the period 1990 to 2000, MENA made significant progress in terms of expanding its technological capacity (Table 8), mostly thanks to improvements in macroeconomic management and educational achievement as many of the non-GCC countries in developing MENA continue to lag other developing regions in terms of government effectiveness and institutional quality.

One way to assess progress since 2000 in the absence of updated TAC and TAI indexes is to look at the World Bank Institute's Knowledge Economic Index (KEI). It corresponds closely to the Technological Adaptive Capacity index since it takes into account whether the environment is conducive for knowledge to be used effectively for economic development, in addition to factors indicating the overall potential of knowledge development in a given country.⁵⁵ According to this index, during the past 10 years GCC and developing oil exporters made progress in their capacity to absorb and use capacity, while oil importers except for Tunisia and Lebanon did not (Table 9).

⁵⁴ TAC is computed based on a set of measures including: macroeconomic environment; general government balance as percentage of GDP; annual CPI inflation rate; real exchange rate volatility; financial structure and intermediation; liquid liabilities percent of GDP; private credit percent of GDP; financial system deposits percent of GDP; human capital; primary educational attainment percent of population aged 15 and over; secondary educational attainment percent of population aged 15 and over; tertiary educational attainment percent of population aged 15 and over; voice and accountability; political stability; government effectiveness; regulatory quality; rule of law and control of corruption.

⁵⁵ The Knowledge Economic Index (KEI) is computed based on the average of the normalized performance scores of a country or region on all 4 pillars related to the knowledge economy – economic incentive and institutional regime, education and human resources, the innovation system and Information and Communication Technology (ICT).

Table 8. Index of Technological Adaptive Capacity

	1990	2000
East Asia & Pacific	0.45	0.49
Europe & Central Asia	0.44	0.49
Latin America & Caribbean	0.40	0.43
South Asia	0.35	0.39
Sub-Saharan Africa	0.33	0.36
Middle East & North Africa	0.39	0.42
Jordan	0.46	0.49
Tunisia	0.40	0.44
Egypt, Arab Rep.	0.39	0.42
Syrian Arab Republic	0.35	0.39
Iran, Islamic Rep.	0.33	0.38

Source: World Bank (2008b).

Table 9. Knowledge Economic Index

	2000	2009
GCC countries	5.01	5.61
Bahrain	6.73	6.04
Kuwait	6.24	5.85
Oman	5.16	5.36
Qatar	6.06	6.73
Saudi Arabia	4.56	5.31
United Arab Emirates	5.96	6.73
Developing oil exporters	3.06	3.30
Algeria	2.73	3.22
Iran, Islamic Rep.	3.56	3.75
Syrian Arab Republic	2.96	3.09
Yemen, Rep.	2.03	2.20
Oil importers	4.21	4.05
Oil importers with GCC links	5.00	4.95
Djibouti	1.70	1.47
Jordan	5.62	5.54
Lebanon	4.78	4.81
Oil importers with EU links	4.14	3.97
Egypt, Arab Rep.	4.31	4.08
Morocco	3.72	3.54
Tunisia	4.12	4.42

Source: Staff estimates based on World Bank data.

Note: Population numbers are used as weights in country group indexes.

This assessment is consistent with the findings based on the technological readiness index (Table 10). It offers an alternative way to measure the agility with which an economy adopts existing technologies to enhance the productivity of its industries, with specific emphasis on its capacity

to fully leverage information and communication technologies in daily activities and production processes for increased efficiency and competitiveness. The issue of whether a technology used in a country has or has not been developed within national borders is irrelevant for a country's ability to enhance productivity. The index captures the central point that the firms operating in the country have access to advanced products and blueprints and the ability to use them.

Table 10. Index of Technological Readiness

	2005	2010
Oil exporters	3.17	3.36
Bahrain	4.60	4.90
Kuwait	4.20	3.50
Qatar	4.40	4.40
UAE	5.30	5.20
Algeria	2.70	3.00
Oil importers	3.53	3.42
Jordan	4.30	3.70
Egypt	3.70	3.30
Morocco	2.80	3.50
Tunisia	4.10	3.90

Source: Staff calculations based on a sub-index of World Economic Forum's Global Competitiveness Index.

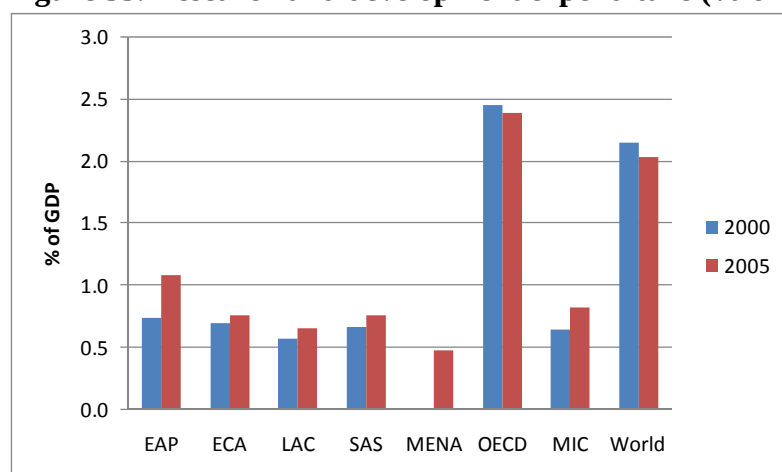
Note: Population numbers are used as weights in country group indexes.

The ability of MENA firms to discover new products is further limited by the modest domestic knowledge generation than can partly substitute for foreign technology. Two reliable indicators of domestic innovation activity are R&D expenditures and patenting activity. Arab nation's R&D spending is low as a percentage of GDP, compared to other middle-income regions (Figure 35). MENA residents receive very few patents. Egyptians were granted fewer than seven U.S. patents per year on average between 2001 and 2005, whereas Malaysians received 5 times more per year and Koreans and Taiwanese each earned thousands (Table 11) .

Still, some MENA countries are vastly more successful than others in their use of technology. One such country is Tunisia whose R&D expenditure as a share of GDP doubled between 2000 and 2005, when it became more than double the average for MENA region (Figure 36). The country has a complex innovation infrastructure and a large number of public programs aimed at providing incentives for R&D and innovation. The quality of Tunisian research institutions is among the best in MENA region, according to the Global Competitiveness Report (World Economic Forum 2010). Education absorbs 7 percent of GDP, and the system produces a large number of university graduates in general fields as well as in sciences and technologies. The country is rated 7th in the world in terms of availability of scientists and engineers – well ahead of MENA and even the EU average (World Economic Forum 2010). Despite these successes,

Tunisia faces serious challenges in its quest for a gradual transformation of traditional sectors into high-value-added, knowledge-intensive sectors.

Figure 35. Research and development expenditure (% of GDP)



Source: World Bank, WDI.

Note: No data were available for MENA region in 2000. MIC stands for Middle Income Countries.

Table 11. Number of resident patents filing per million people

Country of Origin	2000	2001	2002	2003	2004	2005	2006
GCC oil exporters							
Saudi Arabia	4	2	3	3	4	5	5
Developing oil exporters							
Algeria	1	2	1	1	2	2	2
Syrian Arab Republic	15	11	11	12	11	6	6
Yemen	0	0	0	1	0	1	1
Oil importers with EU links							
Egypt	8	7	9	7	5	6	
Morocco	4				3	5	6
Tunisia	5	2	5	4	5	6	
Chile	16	16	25	21	24	22	18
Malaysia	9	11	13	15	21	20	20
Philippines	2	2	2	2	2	2	3
United States of America	584	623	640	651	646	703	742
Republic of Korea	1549	1557	1608	1887	2191	2538	2598

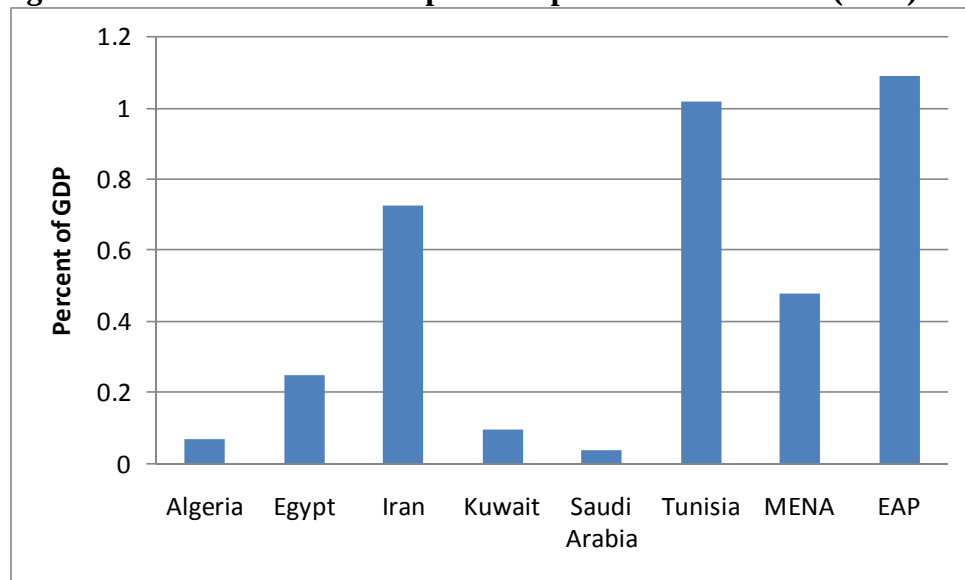
Source: WIPO and World Bank, WDI.

Innovations, technological adaptation, customization or licensed production of foreign-owned products can all lead to export discoveries. A paper by Nassif (2010) discusses six possible triggers for export discovery⁵⁶ based on more than 100 interviews structured around 23 case studies in five MENA countries. Although the results should be treated with caution as the

⁵⁶ Export discoveries were defined as products that had not been sold abroad, or sold only in very limited amounts, at the beginning of the period (1989) and were consistently exported in large quantities by the end of the period (2004).

methodology is open to selection bias, and the sample of firms is not representative, they are indicative of the factors that mattered to the process of export discovery by existing MENA firms. These factors included external unanticipated shocks; market evolution; research; information about new business opportunity; capacity to produce in excess of domestic market; and random events. The paper found that in many cases more than one trigger was at play. Information about a new business opportunity obtained by an entrepreneur willing to take high risks and invest in new technologies and management techniques was shown to be decisive.

Figure 36. Research and development expenditure in MENA (2005)



Source: WDI

Technology can be used to gather and disseminate information needed by entrepreneurs to make export discoveries. Entrepreneurs identified insufficient information about demand in specific markets, prices of new products or services, and the methods for producing quality goods and services efficiently as the key obstacle to the discovery of new export activities. Lack of information about these processes increases uncertainty and raises risk perceptions, which in turn discourage investors. The high cost of gathering the required information is the greatest hurdle in initiating new export activity (Klinger 2007).

According to the survey, MENA entrepreneurs overcame these uncertainties by partnering with firms with the required knowledge; some benefited from subsidies from input suppliers; many accepted the higher risks and absorbed the costs; a few benefited from export promotion, technical assistance or knowledge transfer. Except for access to finance, survey participants did not think policy-induced business constraints mattered for their export discoveries. And neither did government support. Many entrepreneurs pointed out that initial support – through export promotion schemes, competitiveness programs, and innovation grants, was not available to them. Almost all entrepreneurs reported difficulties in accessing capital from the domestic financial

system to start a new business. Successful entrepreneurs overcame this obstacle but there were consequences including delayed investment, high personal risk and dependence on informal financial resources.

4. How can countries move forward given the new environment?

Many MENA countries have introduced reforms addressing some of the constraints to nonoil export growth identified in the paper. The average number of reforms in MENA steadily increased during the last 5 years. Between June 2009 and May 2010, 11 of 18 economies in MENA adopted a total of 22 business regulation reforms to improve the climate for doing business according to the latest Doing Business report (2011). The top reformers in the region were Saudi Arabia and Egypt which were among the 15 most active reformers in the last 5 years. MENA governments improved macroeconomic management, simplified business regulations, reduced restrictions to trade and investment, and opened up their financial sectors. In the past year, many of the business regulation reforms in the region involved the application of new information technologies which increased efficiency and transparency.

However, reforms continued to be implemented in a poor and discriminatory manner – benefiting the few at the expense of the underprivileged. Governance issues and weak institutions – at the heart of the economic and political problems in developing MENA – remained unaddressed. Political reform that reduces unfair privileges therefore would be key to unlocking the economic potential of the region.

Going forward governments in MENA should address demands for transparency, voice and accountability. These issues should be tackled immediately and with vigor in order to avoid prolonged periods of unrest and uncertainty that are particularly damaging to private investment and growth of certain export-oriented sectors such as tourism. Arrangements should be made to have transparent and inclusive consultative process for political resolution. A second equally important priority would be to preserve macroeconomic stability. Skillful macroeconomic management as well as programs boosting employment in the short run will be crucial to minimizing economic disruption and boosting confidence.

As stability returns governments should work on increasing social and economic inclusion and leveling the playing field when it comes to access to information, resources and services. In particular, government need to improve access to information in all spheres of life, including economic data and knowledge of new markets and opportunities and access to services for small business, especially finance and infrastructure. Addressing distortions in labor markets, especially improving the matching process of labor demand and supply is also a priority.

In the GCC, more needs to be done to address the issue of skill shortages in a comprehensive way. GCC governments should continue to invest in skills, facilitate the matching of labor

supply and demand through improved data collection, information and intermediation services. It would be critical to coordinate migration reform and reforms required to transition to technology intensive production. A lot more needs to be done to understand the nature and extent to which regulations restrict trade and FDI in the GCC services.

In developing MENA, countries need to intensify efforts to strengthen institutions, improve information gathering and dissemination, and reform implementation. Countries should press on with financial market development – especially improving financial infrastructure. This will entail expanding the range of movable assets that can be used as collateral, improving registries for movables and enforcement and sales procedures for different types of collateral, upgrading public credit registries, and more importantly, introducing private credit bureaus capable of significantly expanding coverage and the depth of credit information.

Developing MENA countries should also strengthen macroeconomic management, address inefficiencies in labor and goods markets, and facilitate innovation activities, knowledge and technological acquisition. There is evidence that the existing labor market rigidities – especially the high firing costs – have played a role in reducing the impact of the crisis on unemployment. However, these rigidities are now limiting job creation, and the ability of the economy to pick up speed post crisis. Finally, it should be a priority to understand better the nature and extent to which nontariff barriers restrict trade in non-oil goods and services. Restrictive trade policies discourage foreign investment and limit MENA's integration within the region and with the world economy.

REFERENCES

- Anzoategui, D., M. Martinez and R. Rocha (2010) "Bank Competition in the Middle East and Northern Africa Region" Policy Research Working Paper No. 5363, World Bank.
- Behar, A. and C. Freund (2010) "The Trade Performance of the Middle East and North Africa" mimeo, World Bank.
- Behar, A., P. Manners, and B. Nelson (2009) "Exports and Logistics," Economics Series Working Paper No. 439, University of Oxford, Department of Economics.
- Bhattacharya, R. and H. Wolde (2010) "Constraints on Trade in the MENA Region" IMF Working Paper 10/30, Washington, DC.
- Borchert, I., S. DeMartino, and A. Mattoo (2010) "Services Trade Policies in the Pan-Arab Free Trade Area (PAFTA)," mimeo, World Bank, Washington DC.
- Bown, C. and H. Kee (2010) "Developing Countries, New Trade Barriers and the Global Economic Crisis" in M. Haddad and B. Shepherd (eds.) *Managing Openness: Outward-Oriented Growth Strategies after the Crisis*, World Bank (forthcoming).
- Brenton, P. and R. Newfarmer (2009) "Watching More than the Discovery Channel: Export Cycles and Diversification in Development," Policy Research Working Paper 4302, World Bank.
- Brenton, P., L. Shui and P. Walkenhorst (2010) "Globalization and Competition from China and India: Policy Responses in the Middle East and North Africa" in J. Lopez-Calix, N. Diop and P. Walkenhorst (eds.) *Trade Competitiveness of the Middle East and North Africa: Policies for Export Diversification*, World Bank.
- Brulhart, M. (2009) "An Account of Global Intra-Industry Trade: 1962-2006" *World Economy* 32(3): 401-459.
- Burns, A. (2009) "Technology diffusion in the developing world," in V. Chandra, D. Erocal, P. Padoan and C. Braga (eds) *Innovation and Growth: Chasing a Moving Frontier*, World Bank and OECD.
- Cattaneo, O., N. Diop and P. Walkenhorst (2010) "Emerging Export Services: Where Does Tunisia Stand?" in J. Lopez-Calix, N. Diop and P. Walkenhorst (eds.) *Trade Competitiveness of the Middle East and North Africa: Policies for Export Diversification*, World Bank.
- Cattaneo, O., S. Ighilahriz, J. López-Cáliz and P. Walkenhorst (2010) "Services Trade as an Engine of Development: Situation and Prospects in Algeria" in J. Lopez-Calix, N. Diop and P. Walkenhorst (eds.) *Trade Competitiveness of the Middle East and North Africa: Policies for Export Diversification*, World Bank.

De Ferranti, D., G. Perry, D. Lederman, and W. Maloney (2002) *From Natural Resources to the Knowledge Economy: Trade and Job Quality*, World Bank, Washington DC.

Dihel, N. and B. Shepherd (2007) "South-South Services Trade", OECD Trade Policy Working Paper No. 39. ([http://appli1.oecd.org/olis/2006doc.nsf/linkto/td-tc\(2006\)7-final](http://appli1.oecd.org/olis/2006doc.nsf/linkto/td-tc(2006)7-final)).

Diop, N. (2010) "Anchoring Services Reform: The European neighborhood Policy and Morocco" in J. Lopez-Calix, N. Diop and P. Walkenhorst (eds.) *Trade Competitiveness of the Middle East and North Africa: Policies for Export Diversification*, World Bank.

Easterly, W. and R. Levine (2001) "It's Not Factor Accumulation: Stylized Facts and Growth Models," *World Bank Economic Review* 15(2):177–219.

Fawzy, S. (2003) "The Economics and Politics of Arab Economic Integration," in A. Galal and B. Hoekman (eds.) *Arab Economic Integration Between Hope and Reality*, Egyptian Center of Economic Studies and Brookings Institution.

Findlay, C. and T. Warren (2000) *Impediments to Trade in Services: Measurement and Policy Implications*, London and New York: Taylor and Francis, Routledge.

Francois, J. and B. Hoekman (2010) "Services Trade and Policy," *Journal of Economic Literature* 48: 642-692.

Freund, C. (2010) "Rebalancing Trade" in M. Haddad and B. Shepherd (eds). *Managing Openness: Outward-Oriented Growth Strategies after the Crisis*, World Bank (forthcoming).

Freund, C. and E. Ornelas (2010) "Regional Trade Agreements", CEP Discussion Paper No. 961 and forthcoming in the *Annual Review of Economics* 2: 139-67, September.

Gootiiz, B. and A. Mattoo (2009) "Restrictions in Service Trade and FDI in Developing Countries," mimeo, World Bank.

Gourdon, J. (2009) "FDI Flows and Export Diversification: Looking at Extensive and Intensive Margins" in J. Lopez-Calix, N. Diop and P. Walkenhorst (eds.) *Trade Competitiveness of the Middle East and North Africa: Policies for Export Diversification*, World Bank.

Haddad, M. (2007) "Trade Integration in East Asia: The Role of China and Production Networks," Policy Research Working Papers No. 4160, World Bank.

Haddad, M., A. Harrison, and C. Hausman (2010) "Decomposing the Great Trade Collapse: Products, Prices and Quantities in the 2008-2009 Crisis" in M. Haddad and B. Shepherd (eds). *Managing Openness: Outward-Oriented Growth Strategies after the Crisis*, World Bank (forthcoming).

Hall, R. and C. Jones (1999) "Why Do Some Countries Produce So Much More Output Per Worker Than Others?" *Quarterly Journal of Economics* 114(1): 83-116.

Hanson, G. (2010) "Sources of Export Growth in Developing Countries," in M. Haddad and B. Shepherd (eds.) *Managing Openness: Outward-Oriented Growth Strategies after the Crisis*, World Bank (forthcoming).

Hoekman B. and K. Sekkat (2009) "Deeper Integration of Goods, Services, Capital and Labor Markets: A Policy Research Agenda for the MENA Region", ERF Policy Research Report No. 32, Economic Research Forum.

Hoekman, B. and A. Nicita (2008) "Trade Policy, Trade Costs and Developing Country Trade," Policy Research Working Paper No. 4797, World Bank.

International Energy Agency (2008) *World Energy Outlook*, OECD, Paris.

Kee, H., A. Nicita and M. Olarreaga (2008) "Import Demand Elasticities and Trade Distortions," *Review of Economics and Statistics* 90(4): 666–82.

Kee, H., A. Nicita and M. Olarreaga (2009) "Estimating Trade Restrictiveness Indices", *Economic Journal* 119(534): 172–99.

Kemp, G. (2010) *The East Moves West: India, China, and Asia's growing presence in the Middle East*, Brookings Institution Press.

Khandelwal, A. (2004) "COMESA and SADC: Prospects and Challenges for Regional Trade Integration" Working Paper No. 04-227, International Monetary Fund, Washington, DC.

King, R. and R. Levine (1994) "Capital Fundamentalism, Economic Development, and Economic Growth," *Carnegie-Rochester Conference Series on Public Policy* 40: 259-92.

Klinger, B. (2007) "Uncertainty in the Search for New Exports," Graduate Student and Postdoctoral Fellow Working Paper No. 16, Center for International Development, Harvard University, Cambridge, MA.

Klinger, B. and R. Hausmann (2007) "The Structure of the Product Space and the Evolution of Comparative Advantage," CID Working Paper No.146, Center for International Development, Harvard University.

Koettle, J. (2008) "Prospects for Management of Migration Between Europe and the Middle East and North Africa," Background Paper for *Shaping the Future: A Long-Term Perspective of People and Job Mobility in the Middle East and North Africa*, Middle East and North Africa, World Bank.

Mattoo, A., R. Stern, and G. Zanini (2008) *Handbook of International Trade in Services*, Oxford and New York: Oxford University Press.

Miniesty, A. and J. Nugent (2002) "Are There Shortfalls in MENA Trade? If So, What are Their Sources and What Should be Done about Them?" mimeo.

Mitchell, L., A and E. Aldaz-Carroll (2010) "Structural Changes in Commodity Markets: New Opportunities and Policy Challenges for Commodity Exporters" in M. Haddad and B. Shepherd (eds) *Managing Openness: Outward-Oriented growth Strategies after the Crisis* (forthcoming).

Nassif, C. (2010) "Promoting New Exports: Experience from Industry Case Studies" in J. Lopez-Calix, N. Diop and P. Walkenhorst (eds.) *Trade Competitiveness of the Middle East and North Africa: Policies for Export Diversification*, World Bank.

Nogues, J., Olechowski, A. and Winters, L.A. (1986) "Extent of non-tariff barriers to industrial countries' imports," *World Bank Economic Review* 1(1): 181-99.

Noland, M. and H. Pack (2008) "Arab Economies at a Tipping Point," *Middle East Policy* 15(1): 60-69.

Pigato, M. (2009) *Strengthening China's and India's Trade and Investment Ties to the Middle East and North Africa*, World Bank.

Porter, M. and S. Stern (2003) "Ranking National Innovative Capacity: Findings from the National Innovative Capacity Index," *Global Competitiveness Report*, World Economic Forum, Geneva.

Rouis, M. (2010) *Economic Integration in the Mashreq*, Middle East and North Africa, World Bank.

UNCTAD (2005) *World Investment Report 2005: Transnational Corporation and Internationalization of R&D*, United Nations, New York and Geneva.

Wippel, S. (2005) "The Agadir Agreement and Open Regionalism," EuroMeSCo Paper No. 45, EuroMeSCo Secretariat, Lisbon.

World Bank (2008a) *MENA Economic Developments and Prospects: Regional Integration for Global Competitiveness*, Middle East and North Africa Region, World Bank.

World Bank (2008b) *Global Economic Prospects 2008: Technology Diffusion in the Developing World*, Development Economic Prospects Group, World Bank, Washington DC.

World Bank (2009) *From Privilege to Competition: Unlocking Private-Led Growth in the Middle East and North Africa*, MENA Development Report.

World Bank (2010) *Labor Migration from North Africa: Development Impact, Challenges and Policy Options*, Middle East and North Africa Region, World Bank.

World Economic Forum (2010), *Global Competitiveness Report*.

Yeats, A. (1998) "What can be expected from African regional trade arrangements? Some empirical evidence," Policy Research Working Paper No. 2004, World Bank.

Yeats A. and F. Ng (2000) "On the Recent Trade Performance of Sub-Saharan Africa Countries: Cause for Hope or More of the Same?" Africa Region Working Paper Series No. 7, World Bank.

STATISTICAL ANNEX

Table A1. Trade restrictiveness in East Asia excluding China, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	12.7	32.1	9.5	13.8	2.9	5.0	8.8	4.3	5.2	2.6	7.7	23.3	5.1	8.5	0.4
India	26.5	38.4	22.8	27.7	6.9	5.9	16.3	2.7	6.3	0.6	20.5	22.1	20.0	21.4	6.3
SAS excl India	9.2	14.0	8.4	9.2	20.9	5.3	10.9	4.4	5.3	0.1	3.8	3.1	4.0	3.8	20.8
LAC	13.4	22.7	9.4	13.4	20.4	5.0	11.1	2.4	5.0	0.2	8.4	11.6	7.0	8.3	20.2
SSA	23.0	41.4	6.6	27.1	0.7	15.2	31.0	1.1	17.9	0.7	7.8	10.4	5.5	9.2	0.0
ECA	9.1	12.3	8.8	9.8	5.8	4.3	10.9	3.6	4.1	5.3	4.9	1.3	5.2	5.8	0.4
HICs	12.2	23.6	11.1	12.7	8.9	5.9	9.2	5.6	5.9	5.6	6.3	14.4	5.5	6.8	3.3
China	12.9	24.1	12.4	13.0	10.4	6.8	8.6	6.7	6.7	10.2	6.2	15.5	5.7	6.3	0.2
MENA	6.0	17.3	5.9	16.7	2.7	1.9	9.0	1.9	1.9	1.9	4.1	8.3	4.0	14.8	0.8
GCC oil exporters	4.9	32.7	4.9	25.4	2.7	2.1	17.3	2.0	3.3	1.9	2.9	15.5	2.9	22.1	0.8
Other oil exporters	1.8	1.8	1.8	4.2	0.0	0.1	1.7	0.1	0.2	0.0	1.7	0.0	1.7	4.0	0.0
Oil importers	12.2	13.6	12.2	12.2	20.4	1.1	7.1	1.0	1.1	0.1	11.1	6.5	11.2	11.1	20.3
Oil importers w/ GCC links	14.9	82.3	14.9	14.9	0.0	0.1	46.7	0.1	0.1	0.0	14.8	35.6	14.8	14.8	0.0
Oil importers w/ EU links	7.2	13.2	6.7	7.1	20.4	3.0	6.8	2.8	3.0	0.1	4.1	6.4	4.0	4.1	20.3
Maghreb	5.5	8.3	5.5	7.5	0.0	3.9	4.4	3.9	5.3	0.0	1.6	4.0	1.6	2.2	0.0
Algeria	1.8	1.8	1.8	4.2	0.0	0.1	1.7	0.1	0.2	0.0	1.7	0.0	1.7	4.0	0.0
Egypt	6.6	14.0	6.0	6.6	20.6	1.5	7.2	1.1	1.5	0.1	5.1	6.8	4.9	5.0	20.5
Jordan	15.0	41.1	15.0	15.0	0.0	0.1	2.8	0.1	0.1	0.0	14.9	38.3	14.9	14.9	0.0
Lebanon	6.0	92.0	3.7	6.0	0.0	2.1	57.1	0.6	2.1	0.0	3.9	35.0	3.1	3.9	0.0
Morocco	10.1	26.8	10.0	10.1	0.0	8.2	7.7	8.2	8.2	0.0	2.0	19.1	1.8	2.0	0.0
Oman	7.2	31.7	7.1	33.4	3.3	3.9	26.2	3.8	7.6	3.3	3.3	5.6	3.3	25.8	0.0
Saudi Arabia	4.8	33.3	4.7	24.6	2.6	1.9	12.3	1.9	2.8	1.8	2.8	21.0	2.8	21.7	0.8
Tunisia	5.1	3.5	5.2	5.1	0.0	4.7	3.5	4.9	4.7	0.0	0.3	0.0	0.4	0.3	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A2. Trade restrictiveness in India, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	20.9	83.8	13.7	22.6	6.0	9.9	31.2	7.5	10.4	6.0	11.0	52.6	6.2	12.2	0.0
SAS excl India	15.6	17.4	15.0	15.8	2.4	5.9	9.9	4.7	6.0	2.4	9.7	7.4	10.4	9.8	0.0
LAC	10.4	36.8	6.6	14.0	5.0	8.5	30.5	5.5	10.9	5.0	1.8	6.3	1.2	3.0	0.0
SSA	9.2	41.6	6.9	13.9	5.0	8.1	37.8	6.0	11.6	5.0	1.1	3.7	0.9	2.3	0.0
ECA	15.5	32.5	14.8	16.8	5.3	8.1	32.2	7.1	8.4	5.3	7.4	0.3	7.7	8.3	0.0
HICs	16.5	26.2	16.4	16.8	9.3	8.1	20.6	7.9	8.1	9.3	8.4	5.6	8.4	8.7	0.0
China	14.5	50.9	14.3	14.6	9.2	9.0	42.4	8.8	9.0	9.2	5.5	8.5	5.5	5.5	0.0
MENA	9.8	25.4	9.8	16.6	5.8	6.3	22.2	6.3	7.1	5.8	3.5	3.2	3.5	9.5	0.0
GCC oil exporters	9.1	33.5	9.1	17.9	5.5	6.0	29.7	6.0	7.3	5.5	3.1	3.7	3.1	10.7	0.0
Other oil exporters	16.6	0.0	16.6	6.5	9.1	8.6	0.0	8.6	6.5	9.1	8.0	0.0	8.0	0.0	0.0
Oil importers	11.0	22.0	11.0	12.4	6.9	6.8	19.0	6.8	6.8	6.9	4.2	3.0	4.2	5.7	0.0
Oil importers w/ GCC links	11.6	55.4	11.5	12.0	5.0	5.6	28.4	5.6	5.7	5.0	5.9	27.0	5.9	6.3	0.0
Oil importers w/ EU links	10.8	20.9	10.8	12.7	7.0	7.3	18.7	7.2	7.4	7.0	3.6	2.2	3.6	5.3	0.0
Maghreb	10.9	25.1	10.8	11.9	9.1	6.9	22.1	6.9	5.6	9.1	3.9	3.0	3.9	6.3	0.0
Algeria	16.6	0.0	16.6	49.7	9.1	8.6	0.0	8.6	6.5	9.1	8.0	0.0	8.0	43.2	0.0
Egypt	13.7	19.4	13.7	21.1	7.0	8.4	17.5	8.3	9.8	7.0	5.4	1.9	5.4	11.3	0.0
Jordan	11.6	28.1	11.6	12.1	5.0	5.6	26.7	5.6	5.7	5.0	6.0	1.4	6.0	6.4	0.0
Lebanon	10.1	56.2	9.2	10.1	0.0	6.4	28.4	6.0	6.4	0.0	3.7	27.8	3.2	3.7	0.0
Morocco	4.9	24.9	4.9	4.9	0.0	4.9	21.8	4.8	4.9	0.0	0.1	3.1	0.1	0.1	0.0
Oman	27.8	30.3	27.8	34.1	6.7	7.9	29.6	7.9	8.3	6.7	19.9	0.8	19.9	25.8	0.0
Saudi Arabia	7.2	39.2	7.2	12.5	5.5	5.8	30.0	5.8	6.9	5.5	1.4	9.2	1.4	5.6	0.0
Tunisia	7.6	26.7	7.6	7.6	0.0	6.4	24.4	6.4	6.4	0.0	1.2	2.3	1.2	1.2	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data. Note: The estimates exclude restrictive NTBs imposed by India on natural gas imports from Algeria. These are high and distort the protection rates levied by India on nonoil exports of developing oil exporters.

Table A3. Trade restrictiveness in South Asia other than India, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	24.8	47.6	14.0	24.9	16.5	14.5	16.8	13.4	14.5	16.5	10.3	30.9	0.5	10.4	0.0
India	9.5	12.5	9.0	8.7	14.7	8.8	11.1	8.4	7.8	14.7	0.7	1.4	0.6	0.8	0.0
SAS excl India	10.3	11.7	9.8	10.3	21.7	9.6	11.5	8.8	9.5	21.7	0.8	0.2	1.0	0.8	0.0
LAC	11.8	18.8	4.1	11.8	11.9	4.8	5.5	4.0	4.8	11.9	7.0	13.3	0.1	7.0	0.0
SSA	5.4	12.0	3.6	5.2	13.8	5.0	12.0	3.2	4.9	13.8	0.3	0.0	0.4	0.3	0.0
ECA	9.1	7.7	10.7	9.1	19.2	7.2	7.6	6.7	7.2	19.2	1.9	0.2	4.0	1.9	0.0
HICs	11.7	11.0	11.8	11.7	11.3	10.5	9.6	10.7	10.5	11.3	1.2	1.4	1.2	1.3	0.0
China	11.8	14.5	11.7	11.8	13.4	10.2	11.1	10.2	10.2	13.4	1.5	3.4	1.5	1.5	0.0
MENA	4.5	14.7	4.5	4.9	4.3	4.5	13.0	4.4	4.7	4.3	0.1	1.7	0.1	0.2	0.0
GCC oil exporters	4.3	20.3	4.3	4.4	4.3	4.3	16.9	4.3	4.1	4.3	0.1	3.4	0.1	0.3	0.0
Other oil exporters	4.4	0.0	4.4	4.4	0.0	4.4	0.0	4.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0
Oil importers	5.4	8.9	5.4	5.4	13.7	5.4	8.9	5.3	5.4	13.7	0.1	0.0	0.1	0.1	0.0
Oil importers w/ GCC links	8.6	18.0	8.5	8.6	0.0	8.6	18.0	8.5	8.6	0.0	0.0	0.0	0.0	0.0	0.0
Oil importers w/ EU links	5.3	8.7	5.2	5.3	13.7	5.2	8.7	5.2	5.2	13.7	0.1	0.0	0.1	0.1	0.0
Maghreb	5.0	10.7	5.0	5.0	13.8	5.0	10.7	5.0	5.0	13.8	0.0	0.0	0.0	0.0	0.0
Algeria	4.4	0.0	4.4	4.4	0.0	4.4	0.0	4.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0
Egypt	6.3	8.6	6.2	6.3	13.7	6.1	8.6	6.0	6.0	13.7	0.2	0.0	0.2	0.2	0.0
Jordan	2.3	17.9	2.2	2.3	0.0	2.3	17.9	2.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Lebanon	13.2	18.7	13.2	13.2	0.0	13.2	18.7	13.2	13.2	0.0	0.0	0.0	0.0	0.0	0.0
Morocco	5.1	13.0	5.1	5.1	0.0	5.1	13.0	5.1	5.1	0.0	0.0	0.0	0.0	0.0	0.0
Oman	3.5	11.3	3.4	3.1	13.8	3.5	11.3	3.4	3.1	13.8	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	4.4	23.7	4.4	4.8	4.3	4.3	19.1	4.3	4.4	4.3	0.1	4.7	0.1	0.4	0.0
Tunisia	2.5	3.3	2.5	2.4	13.8	1.7	3.3	1.7	1.6	13.8	0.7	0.0	0.7	0.7	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A4. Trade restrictiveness in LAC, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	14.2	20.6	13.7	14.2	3.7	7.9	8.2	7.9	7.9	3.7	6.3	12.4	5.9	6.3	0.0
India	13.6	29.4	13.0	16.8	0.2	8.0	8.0	8.0	9.8	0.2	5.6	21.4	5.1	7.0	0.0
SAS excl India	43.4	30.1	45.7	43.4	0.0	22.4	3.8	25.6	22.4	0.0	21.0	26.3	20.1	21.0	0.0
LAC	11.7	24.7	9.8	12.4	2.3	1.5	3.1	1.3	1.4	2.3	10.2	21.6	8.5	11.0	0.0
SSA	4.7	16.0	3.6	9.9	0.0	2.3	10.3	1.5	4.8	0.0	2.4	5.6	2.1	5.1	0.0
ECA	14.3	45.9	14.2	16.8	1.8	2.5	13.5	2.4	2.6	1.8	11.9	32.4	11.7	14.2	0.0
HICs	15.4	24.6	14.2	17.0	1.3	4.4	4.3	4.4	4.8	1.3	11.0	20.4	9.8	12.3	0.0
China	19.1	33.2	18.9	19.1	4.8	10.1	12.2	10.1	10.1	4.8	9.0	20.9	8.8	9.0	0.0
MENA	7.3	51.8	7.1	11.4	1.0	1.5	18.6	1.4	1.8	1.0	5.8	33.2	5.7	9.6	0.0
GCC oil exporters	2.8	8.3	2.8	5.2	1.5	1.3	7.5	1.3	0.8	1.5	1.5	0.8	1.5	4.3	0.0
Other oil exporters	7.1	6.2	7.1	44.7	0.1	0.1	6.2	0.1	0.1	0.1	7.0	0.0	7.0	44.6	0.0
Oil importers	10.6	52.6	10.3	10.8	1.8	2.1	18.8	2.0	2.1	1.8	8.5	33.8	8.3	8.7	0.0
Oil importers w/ GCC links	17.0	29.3	16.5	17.0	0.0	2.0	13.3	1.6	2.0	0.0	15.0	16.0	15.0	15.0	0.0
Oil importers w/ EU links	10.4	57.3	10.1	10.6	1.8	2.1	19.9	2.0	2.1	1.8	8.3	37.4	8.1	8.5	0.0
Maghreb	12.0	79.3	11.8	22.1	0.1	1.9	10.3	1.8	3.3	0.1	10.2	69.0	10.0	18.7	0.0
Algeria	7.1	6.2	7.1	44.7	0.1	0.1	6.2	0.1	0.1	0.1	7.0	0.0	7.0	44.6	0.0
Egypt	6.4	40.7	6.2	6.4	2.9	1.2	26.3	1.0	1.1	2.9	5.2	14.3	5.2	5.3	0.0
Jordan	11.9	35.1	11.8	11.9	0.0	1.0	25.4	0.8	1.0	0.0	10.9	9.6	10.9	10.9	0.0
Lebanon	28.6	28.5	28.6	28.6	0.0	4.4	11.6	3.5	4.4	0.0	24.2	16.9	25.1	24.2	0.0
Morocco	16.0	84.5	15.5	16.6	0.2	3.6	10.3	3.6	3.7	0.2	12.4	74.2	11.9	12.8	0.0
Oman	21.8	8.9	22.2	21.8	0.0	12.1	8.9	12.2	12.1	0.0	9.7	0.0	10.0	9.7	0.0
Saudi Arabia	2.8	8.2	2.8	5.2	1.5	1.3	7.3	1.3	0.8	1.5	1.5	0.9	1.5	4.3	0.0
Tunisia	27.4	57.8	27.3	27.7	5.9	5.1	11.9	5.1	5.1	5.9	22.3	45.8	22.2	22.6	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A5. Trade restrictiveness in SSA, 2008 (in percent)

	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
Exporting country	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	14.0	21.5	10.2	14.2	2.1	8.6	10.5	7.6	8.7	2.0	5.4	11.0	2.6	5.5	0.1
India	14.9	31.8	14.1	16.2	9.3	7.6	15.6	7.2	8.7	2.6	7.4	16.2	6.9	7.5	6.6
SAS excl India	29.8	40.8	28.0	30.8	10.0	18.0	17.8	18.0	18.4	10.0	11.8	23.1	9.9	12.4	0.0
LAC	13.1	21.4	8.5	13.5	3.7	7.9	10.9	6.3	8.2	0.6	5.2	10.5	2.2	5.2	3.2
SSA	9.6	16.5	7.5	10.9	5.7	6.4	13.1	4.3	7.2	3.8	3.2	3.4	3.2	3.6	2.0
ECA	16.7	31.9	15.4	17.7	9.6	8.1	19.1	7.2	8.6	4.8	8.6	12.9	8.2	9.1	4.8
HICs	14.8	20.6	14.2	14.5	21.1	7.7	10.5	7.4	7.9	4.2	7.1	10.1	6.8	6.6	16.9
China	19.0	35.7	18.5	19.0	10.7	11.1	16.0	11.0	11.1	10.4	7.9	19.7	7.5	7.9	0.3
MENA	20.9	69.3	18.0	35.0	5.0	3.1	11.5	2.6	4.0	2.1	17.8	57.9	15.4	31.0	2.9
GCC oil exporters	20.1	108.7	17.0	40.4	4.2	2.5	12.5	2.1	3.0	2.1	17.6	96.2	14.9	37.4	2.2
Other oil exporters	21.9	16.2	23.2	29.0	0.5	5.7	11.6	4.3	7.4	0.5	16.1	4.6	18.9	21.5	0.0
Oil importers	24.5	34.4	22.9	24.4	25.5	5.8	10.4	5.0	5.9	4.5	18.7	24.0	17.9	18.5	21.0
Oil importers w/ GCC links	23.1	29.8	22.6	23.7	6.5	6.5	15.0	5.9	6.5	6.5	16.6	14.8	16.8	17.1	0.0
Oil importers w/ EU links	24.9	35.0	22.9	24.6	26.8	5.6	9.9	4.7	5.7	4.3	19.3	25.1	18.2	18.9	22.5
Maghreb	27.8	40.2	23.2	27.6	28.9	9.1	12.0	8.1	9.9	4.4	18.6	28.2	15.1	17.7	24.5
Algeria	21.9	16.2	23.2	29.0	0.5	5.7	11.6	4.3	7.4	0.5	16.1	4.6	18.9	21.5	0.0
Egypt	22.8	22.2	22.8	23.3	18.4	3.5	6.9	3.1	3.5	3.3	19.3	15.3	19.7	19.8	15.1
Jordan	31.0	20.2	31.6	31.0	1.4	4.5	15.0	3.8	4.5	1.4	26.5	5.2	27.8	26.5	0.0
Lebanon	20.2	32.5	19.2	20.8	6.5	7.3	15.0	6.6	7.3	6.5	13.0	17.5	12.6	13.5	0.0
Morocco	30.9	44.4	24.6	27.4	62.2	8.9	11.1	7.9	8.9	8.8	22.0	33.3	16.7	18.4	53.3
Oman	13.1	53.3	11.9	29.2	6.9	2.9	14.7	2.5	7.7	1.0	10.2	38.6	9.4	21.4	5.9
Saudi Arabia	20.2	109.6	17.1	40.5	4.1	2.5	12.5	2.1	2.9	2.1	17.7	97.1	15.0	37.6	2.1
Tunisia	23.3	42.2	19.3	27.1	1.0	13.5	17.9	12.6	15.7	1.0	9.7	24.3	6.7	11.4	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A6. Trade restrictiveness in ECA, 2008 (in percent)

	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
Exporting country	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	17.3	23.7	15.4	17.3	4.9	6.9	9.9	6.1	6.9	4.9	10.4	13.8	9.4	10.4	0.0
India	12.8	29.0	10.1	13.1	0.1	5.9	13.4	4.6	6.0	0.1	6.9	15.6	5.5	7.1	0.0
SAS excl India	16.2	50.8	6.5	16.2	0.0	5.9	8.9	5.1	5.9	0.0	10.3	42.0	1.5	10.3	0.0
LAC	29.7	44.7	9.8	29.7	1.6	12.2	18.0	4.4	12.2	1.6	17.6	26.7	5.4	17.6	0.0
SSA	7.0	11.4	5.6	7.0	0.0	2.3	4.3	1.6	2.3	0.0	4.7	7.1	4.0	4.7	0.0
ECA	5.0	19.3	4.1	6.2	0.2	1.3	4.0	1.1	1.5	0.2	3.8	15.3	3.0	4.7	0.0
HICs	17.5	23.2	16.5	17.7	4.0	8.5	16.0	7.2	8.6	4.0	9.0	7.2	9.3	9.1	0.0
China	18.4	30.5	18.1	18.4	4.6	7.2	11.0	7.1	7.2	4.6	11.2	19.4	10.9	11.2	0.0
MENA	2.2	13.4	1.4	2.7	0.1	1.5	8.6	1.0	1.9	0.1	0.7	4.8	0.4	0.8	0.0
GCC oil exporters	1.0	25.3	0.9	3.1	0.1	0.9	23.4	0.8	2.9	0.1	0.1	1.8	0.1	0.3	0.0
Other oil exporters	0.1	3.1	0.1	0.1	0.0	0.0	2.7	0.0	0.0	0.0	0.1	0.4	0.1	0.1	0.0
Oil importers	7.1	13.6	5.0	7.2	0.1	4.8	8.6	3.5	4.8	0.1	2.3	5.0	1.5	2.3	0.0
Oil importers w/ GCC links	4.4	12.1	3.9	4.4	5.0	2.8	9.0	2.4	2.8	5.0	1.6	3.0	1.5	1.6	0.0
Oil importers w/ EU links	7.3	13.6	5.1	7.4	0.1	4.9	8.6	3.7	5.0	0.1	2.4	5.0	1.4	2.4	0.0
Maghreb	1.5	6.6	1.2	1.6	0.0	1.2	5.5	0.9	1.2	0.0	0.4	1.1	0.3	0.4	0.0
Algeria	0.1	3.1	0.1	0.1	0.0	0.0	2.7	0.0	0.0	0.0	0.1	0.4	0.1	0.1	0.0
Egypt	7.5	22.0	3.1	7.7	0.1	4.4	12.3	2.0	4.5	0.1	3.1	9.7	1.2	3.2	0.0
Jordan	7.4	21.5	5.9	7.4	5.0	5.0	15.8	3.8	5.0	5.0	2.4	5.7	2.1	2.4	0.0
Lebanon	3.4	5.8	3.3	3.4	5.0	2.0	4.5	1.9	2.0	5.0	1.4	1.3	1.4	1.4	0.0
Morocco	6.7	6.4	6.8	6.7	0.0	5.8	5.5	6.0	5.9	0.0	0.8	0.9	0.7	0.8	0.0
Oman	4.5	19.6	4.4	2.5	6.7	4.3	14.5	4.2	2.0	6.7	0.2	5.2	0.2	0.5	0.0
Saudi Arabia	0.9	25.5	0.9	3.2	0.0	0.8	23.8	0.8	2.9	0.0	0.1	1.7	0.1	0.3	0.0
Tunisia	7.9	8.4	7.9	7.9	2.3	4.9	6.1	4.7	4.9	2.3	3.0	2.2	3.2	3.0	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A7. Trade restrictiveness in MENA, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	16.3	30.2	12.4	16.3	5.7	7.3	10.3	6.5	7.3	5.7	8.9	19.8	5.9	9.0	0.0
India	16.6	25.5	13.7	17.4	8.5	7.0	8.7	6.5	6.9	8.5	9.6	16.8	7.2	10.5	0.0
SAS excl India	21.1	24.6	18.2	21.1	0.0	8.7	8.5	8.9	8.7	0.0	12.4	16.1	9.3	12.4	0.0
LAC	43.5	61.0	15.3	43.5	7.0	8.7	10.0	6.7	8.7	5.9	34.8	51.0	8.6	34.8	1.1
SSA	28.4	45.3	22.1	29.1	10.0	6.6	13.6	4.1	6.5	10.0	21.8	31.7	18.1	22.6	0.0
ECA	16.1	21.8	14.5	17.1	7.9	7.4	10.2	6.6	7.3	7.8	8.7	11.6	7.9	9.8	0.1
HICs	16.9	48.2	12.5	17.0	5.0	7.7	19.3	6.1	7.8	4.7	9.1	28.9	6.4	9.3	0.3
China	22.0	39.9	21.5	22.0	22.3	8.9	15.8	8.7	8.9	9.7	13.1	24.1	12.8	13.1	12.6
MENA	13.3	25.7	11.9	18.9	0.4	1.5	3.4	1.2	1.9	0.4	11.8	22.4	10.7	17.0	0.0
GCC oil exporters	7.8	18.9	7.2	16.3	0.2	0.3	0.4	0.3	0.5	0.2	7.5	18.5	6.9	15.8	0.0
Other oil exporters	27.2	117.3	26.6	27.6	5.3	3.4	70.7	2.9	3.3	5.3	23.9	46.6	23.7	24.2	0.0
Oil importers	18.2	27.9	15.8	18.6	6.9	2.8	4.1	2.4	2.6	6.5	15.4	23.9	13.4	15.9	0.4
Oil importers w/ GCC links	12.0	20.2	10.9	12.0	6.7	0.6	0.7	0.5	0.6	1.9	11.4	19.4	10.4	11.4	4.8
Oil importers w/ EU links	20.3	29.4	17.7	20.9	6.9	3.5	4.7	3.2	3.4	6.5	16.8	24.7	14.6	17.5	0.4
Maghreb	25.5	39.1	24.0	26.0	3.7	4.2	9.2	3.7	4.3	3.0	21.2	29.9	20.3	21.7	0.7
Algeria	27.2	117.3	26.6	27.6	5.3	3.4	70.7	2.9	3.3	5.3	23.9	46.6	23.7	24.2	0.0
Egypt	19.5	27.2	17.4	20.0	8.1	2.8	4.1	2.5	2.6	8.0	16.7	23.1	14.9	17.4	0.2
Jordan	11.1	16.7	10.7	11.1	0.1	0.3	1.4	0.2	0.3	0.1	10.8	15.3	10.5	10.8	0.0
Lebanon	13.4	22.1	11.3	13.4	15.7	1.0	0.4	1.2	1.0	4.4	12.4	21.7	10.1	12.4	11.4
Morocco	26.3	42.2	18.5	26.8	5.3	7.2	8.4	6.6	7.2	5.3	19.1	33.8	11.9	19.6	0.0
Oman	3.1	2.8	3.3	3.1	0.0	0.5	0.9	0.2	0.5	0.0	2.6	2.0	3.1	2.6	0.0
Saudi Arabia	8.0	26.6	7.3	17.4	0.2	0.3	0.2	0.3	0.5	0.2	7.7	26.4	6.9	16.9	0.0
Tunisia	20.5	28.0	18.9	21.5	2.0	4.6	4.1	4.7	4.8	0.6	16.0	23.8	14.2	16.7	1.5

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A8. Trade restrictiveness in GCC oil exporters, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	5.8	19.6	3.7	5.8	5.0	3.9	6.0	3.5	3.9	5.0	2.0	13.6	0.2	2.0	0.0
India	8.0	21.5	5.0	8.1	5.0	5.9	11.4	4.7	5.9	5.0	2.1	10.0	0.3	2.1	0.0
SAS excl India	5.3	5.6	5.0	5.3	0.0	3.3	2.0	4.2	3.3	0.0	2.0	3.5	0.8	2.0	0.0
LAC	6.2	8.1	4.5	6.2	5.0	3.8	3.0	4.4	3.8	5.0	2.4	5.0	0.1	2.4	0.0
SSA	8.2	18.1	4.8	8.2	5.0	6.7	13.5	4.4	6.7	5.0	1.5	4.6	0.4	1.5	0.0
ECA	4.2	1.6	5.1	4.2	5.0	4.0	1.1	5.0	4.0	5.0	0.2	0.5	0.1	0.2	0.0
HICs	7.1	37.9	4.9	7.2	5.0	6.2	33.0	4.2	6.2	5.0	1.0	4.9	0.7	1.0	0.0
China	4.5	17.5	4.3	4.5	5.0	3.9	3.5	3.9	3.9	5.0	0.6	14.0	0.4	0.6	0.0
MENA	4.5	12.7	2.4	4.5	0.0	0.0	0.0	0.0	0.0	0.0	4.5	12.7	2.3	4.5	0.0
GCC oil exporters	4.9	18.3	0.1	5.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	18.3	0.1	5.0	0.0
Other oil exporters	5.4	0.0	5.5	5.4	0.0	4.3	0.0	4.3	4.3	0.0	1.1	0.0	1.1	1.1	0.0
Oil importers	4.3	9.7	3.1	4.3	0.0	0.0	0.0	0.0	0.0	0.0	4.3	9.7	3.1	4.3	0.0
Oil importers w/ GCC links	7.2	8.8	7.1	7.2	0.0	0.0	0.0	0.0	0.0	0.0	7.2	8.8	7.1	7.2	0.0
Oil importers w/ EU links	3.0	9.8	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	9.8	1.0	3.0	0.0
Maghreb	0.8	2.4	0.4	0.8	0.0	0.2	0.0	0.3	0.2	0.0	0.5	2.4	0.1	0.5	0.0
Algeria	5.4	0.0	5.5	5.4	0.0	4.3	0.0	4.3	4.3	0.0	1.1	0.0	1.1	1.1	0.0
Egypt	3.4	10.8	1.1	3.4	0.0	0.0	0.0	0.0	0.0	0.0	3.4	10.8	1.1	3.4	0.0
Jordan	10.2	9.1	10.3	10.2	0.0	0.0	0.0	0.0	0.0	0.0	10.2	9.1	10.3	10.2	0.0
Lebanon	2.0	8.5	0.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.5	0.8	2.0	0.0
Morocco	0.6	2.5	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.5	0.1	0.6	0.0
Oman	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0
Saudi Arabia	7.3	55.9	0.1	7.6	0.0	0.0	0.0	0.0	0.0	0.0	7.3	55.9	0.1	7.6	0.0
Tunisia	0.3	1.8	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.8	0.1	0.3	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A9. Trade restrictiveness in developing oil exporters, 2008 (in percent)

	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
Exporting country	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	45.5	68.7	37.4	45.5	80.3	13.5	18.5	11.8	13.5	22.3	31.9	50.2	25.7	31.9	57.9
India	36.0	46.3	34.1	36.0	80.3	12.8	17.5	11.9	12.8	22.3	23.2	28.8	22.1	23.2	57.9
SAS excl India	49.3	36.9	49.9	49.3	0.0	14.5	24.1	14.1	14.5	0.0	34.8	12.8	35.8	34.8	0.0
LAC	62.5	72.7	22.1	62.5	80.3	8.2	8.1	8.7	8.2	22.3	54.3	64.7	13.4	54.3	57.9
SSA	40.6	42.2	35.5	40.6	80.3	22.1	26.2	9.1	22.1	22.3	18.5	16.0	26.3	18.5	57.9
ECA	35.7	57.8	22.9	35.6	80.3	16.7	25.8	11.5	16.7	22.3	18.9	32.1	11.3	18.9	57.9
HICs	35.5	51.9	31.7	35.5	80.3	9.7	6.9	10.4	9.7	22.3	25.8	44.9	21.3	25.8	57.9
China	42.0	64.1	41.4	42.0	80.3	14.9	22.6	14.7	14.9	22.3	27.1	41.5	26.7	27.1	57.9
MENA	39.6	94.2	36.0	39.5	80.3	11.5	22.0	10.8	11.5	22.3	28.0	72.3	25.1	28.0	57.9
GCC oil exporters	36.6	123.9	35.1	36.4	80.3	7.7	28.8	7.3	7.6	22.3	28.9	95.1	27.7	28.7	57.9
Other oil exporters	40.0	93.2	36.1	39.9	80.3	12.1	21.7	11.4	12.1	22.3	27.9	71.5	24.7	27.9	57.9
Oil importers	14.8	12.2	15.0	14.8	80.3	3.4	8.3	3.1	3.4	22.3	11.3	3.8	11.9	11.3	57.9
Oil importers w/ GCC links	44.4	107.4	39.8	44.3	80.3	13.6	24.1	12.8	13.6	22.3	30.8	83.3	27.0	30.8	57.9
Oil importers w/ EU links	42.7	117.3	36.8	42.6	80.3	12.3	26.5	11.2	12.3	22.3	30.3	90.8	25.6	30.3	57.9
Egypt	46.8	91.7	43.8	46.7	80.3	15.3	20.2	15.0	15.3	22.3	31.5	71.5	28.8	31.4	57.9
Jordan	6.3	5.9	6.3	6.3	0.0	0.5	4.8	0.2	0.5	0.0	5.7	1.1	6.1	5.7	0.0
Lebanon	41.1	46.6	40.8	41.0	80.3	12.4	27.8	11.7	12.4	22.3	28.6	18.8	29.1	28.6	57.9
Morocco	48.9	105.1	44.4	48.9	0.0	13.5	28.5	12.3	13.5	0.0	35.4	76.6	32.1	35.4	0.0
Oman	74.9	145.7	32.2	74.9	0.0	20.3	30.0	14.4	20.3	0.0	54.7	115.7	17.8	54.7	0.0
Saudi Arabia	36.0	113.9	35.1	35.8	80.3	7.5	28.3	7.3	7.5	22.3	28.5	85.7	27.8	28.4	57.9
Tunisia	40.4	121.7	34.1	40.3	80.3	11.9	25.8	10.8	11.9	22.3	28.5	95.9	23.3	28.4	57.9

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A10. Trade restrictiveness in oil importers, 2008 (in percent)

	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
Exporting country	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil	All	Agri- culture	Manu- factures	Nonoil	Oil
EAS excl China	30.0	33.5	28.1	30.0	14.0	12.3	12.4	12.2	12.3	14.0	17.7	21.1	15.9	17.7	0.0
India	24.6	27.0	23.5	27.5	9.3	7.8	6.6	8.3	7.5	9.3	16.9	20.4	15.1	20.0	0.0
SAS excl India	35.1	41.4	29.0	35.1	0.0	13.7	14.2	13.2	13.7	0.0	21.4	27.3	15.7	21.4	0.0
LAC	59.3	78.3	23.6	59.3	28.0	11.7	13.4	8.4	11.7	28.0	47.6	64.8	15.3	47.6	0.0
SSA	44.3	72.1	36.0	46.9	10.0	4.8	9.0	3.6	4.4	10.0	39.4	63.0	32.4	42.5	0.0
ECA	17.8	20.0	17.4	20.2	7.8	7.1	9.8	6.6	6.9	7.8	10.7	10.3	10.8	13.3	0.0
HICs	30.7	53.7	24.7	31.9	4.5	10.2	13.4	9.3	10.4	4.5	20.6	40.3	15.4	21.5	0.0
China	34.6	45.5	34.3	34.6	14.9	12.4	20.1	12.2	12.4	14.9	22.2	25.5	22.1	22.2	0.0
MENA	13.8	30.9	12.4	22.5	0.4	1.2	4.7	0.9	1.7	0.4	12.6	26.2	11.5	20.9	0.0
GCC oil exporters	7.8	18.7	7.4	18.4	0.2	0.3	0.6	0.3	0.4	0.2	7.5	18.2	7.2	18.0	0.0
Other oil exporters	27.4	117.8	26.7	27.7	5.3	3.4	71.0	2.9	3.3	5.3	24.0	46.8	23.9	24.4	0.0
Oil importers	23.8	34.6	20.5	24.9	6.7	2.6	5.3	1.8	2.4	6.7	21.1	29.3	18.6	22.5	0.0
Oil importers w/ GCC links	16.9	29.6	14.7	16.9	0.1	0.7	0.8	0.7	0.7	0.1	16.2	28.8	14.0	16.2	0.0
Oil importers w/ EU links	25.8	35.4	22.4	27.4	6.7	3.2	6.1	2.2	2.9	6.7	22.6	29.4	20.2	24.5	0.0
Maghreb	25.3	36.7	24.1	26.0	2.8	3.4	8.9	2.8	3.4	2.8	21.9	27.8	21.3	22.6	0.0
Algeria	27.4	117.8	26.7	27.7	5.3	3.4	71.0	2.9	3.3	5.3	24.0	46.8	23.9	24.4	0.0
Egypt	28.0	37.2	25.2	29.6	8.4	3.1	6.5	2.1	2.7	8.4	24.8	30.6	23.1	26.9	0.0
Jordan	13.3	30.4	12.1	13.3	0.1	0.6	2.4	0.5	0.6	0.1	12.7	28.0	11.6	12.7	0.0
Lebanon	21.5	29.3	18.8	21.5	0.0	0.9	0.3	1.2	0.9	0.0	20.6	29.1	17.6	20.6	0.0
Morocco	35.0	51.6	16.6	36.8	5.3	9.6	9.9	9.3	9.9	5.3	25.4	41.8	7.2	26.9	0.0
Oman	17.9	29.6	13.9	18.7	0.0	2.9	10.0	0.4	3.0	0.0	15.0	19.6	13.4	15.7	0.0
Saudi Arabia	7.7	18.2	7.4	18.4	0.2	0.3	0.1	0.3	0.4	0.2	7.5	18.1	7.1	18.0	0.0
Tunisia	9.8	11.4	9.2	10.8	0.0	0.1	0.2	0.1	0.1	0.0	9.7	11.3	9.2	10.7	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A11. Trade restrictiveness in oil importers with GCC links, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri-culture	Manu-factures	Nonoil	Oil	All	Agri-culture	Manu-factures	Nonoil	Oil	All	Agri-culture	Manu-factures	Nonoil	Oil
EAS excl China	22.8	26.6	21.2	22.8	5.4	8.4	10.2	7.6	8.4	5.4	14.4	16.4	13.6	14.4	0.0
India	17.7	23.5	14.7	17.4	21.6	6.5	7.9	5.9	5.4	21.6	11.1	15.6	8.9	12.0	0.0
SAS excl India	26.0	21.8	31.8	26.0	0.0	13.9	15.6	11.5	13.9	0.0	12.1	6.1	20.3	12.1	0.0
LAC	42.9	50.6	23.7	42.9	3.4	8.7	9.9	5.9	8.7	3.4	34.2	40.8	17.8	34.2	0.0
SSA	23.3	46.9	4.3	23.3	0.0	5.4	10.1	1.5	5.4	0.0	18.0	36.8	2.8	18.0	0.0
ECA	10.8	10.0	11.1	11.8	7.0	5.3	3.3	5.9	4.8	7.0	5.5	6.7	5.2	7.0	0.0
HICs	17.3	51.4	13.7	19.9	4.5	5.5	6.5	5.4	5.7	4.5	11.8	44.9	8.2	14.1	0.0
China	25.7	51.7	24.7	25.7	12.5	8.4	11.2	8.3	8.4	12.5	17.3	40.5	16.4	17.3	0.0
MENA	12.3	26.3	10.3	23.5	0.0	0.0	0.0	0.0	0.0	0.0	12.3	26.3	10.3	23.5	0.0
GCC oil exporters	4.6	18.8	3.6	13.4	0.0	0.0	0.0	0.0	0.0	0.0	4.6	18.8	3.6	13.4	0.0
Other oil exporters	4.6	102.6	4.5	4.6	0.0	1.4	15.7	1.4	1.4	0.0	3.2	86.9	3.2	3.2	0.0
Oil importers	31.7	30.6	32.1	32.5	0.0	0.0	0.0	0.0	0.0	0.0	31.7	30.6	32.1	32.5	0.0
Oil importers w/ GCC links	13.2	14.4	12.8	13.2	0.0	0.0	0.0	0.0	0.0	0.0	13.2	14.4	12.8	13.2	0.0
Oil importers w/ EU links	35.0	33.4	35.6	36.1	0.0	0.0	0.0	0.0	0.0	0.0	35.0	33.4	35.6	36.1	0.0
Maghreb	24.4	45.7	7.8	32.7	0.0	0.1	0.0	0.1	0.1	0.0	24.3	45.7	7.7	32.6	0.0
Algeria	4.6	102.6	4.5	4.6	0.0	1.4	15.7	1.4	1.4	0.0	3.2	86.9	3.2	3.2	0.0
Egypt	36.1	30.8	37.9	36.2	0.0	0.0	0.0	0.0	0.0	0.0	36.1	30.8	37.9	36.2	0.0
Jordan	9.4	33.4	4.3	9.4	0.0	0.0	0.0	0.0	0.0	0.0	9.4	33.4	4.3	9.4	0.0
Lebanon	16.4	6.3	21.4	16.4	0.0	0.0	0.0	0.0	0.0	0.0	16.4	6.3	21.4	16.4	0.0
Morocco	42.7	48.7	17.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	42.7	48.7	17.0	42.7	0.0
Oman	15.1	12.3	16.4	16.7	0.0	0.0	0.0	0.0	0.0	0.0	15.1	12.3	16.4	16.7	0.0
Saudi Arabia	4.5	19.0	3.5	13.3	0.0	0.0	0.0	0.0	0.0	0.0	4.5	19.0	3.5	13.3	0.0
Tunisia	7.3	18.5	6.2	16.3	0.0	0.0	0.0	0.0	0.0	0.0	7.3	18.5	6.2	16.3	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A12. Trade restrictiveness in oil importers with EU links, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri-culture	Manu-factures	Nonoil	Oil	All	Agri-culture	Manu-factures	Nonoil	Oil	All	Agri-culture	Manu-factures	Nonoil	Oil
EAS excl China	32.3	35.3	30.6	32.3	27.9	13.6	13.0	13.9	13.6	27.9	18.7	22.3	16.7	18.7	0.0
India	26.4	27.9	25.7	30.4	8.1	8.1	6.3	9.0	8.1	8.1	18.3	21.6	16.7	22.3	0.0
SAS excl India	46.1	77.7	26.6	46.1	0.0	13.4	11.5	14.6	13.4	0.0	32.7	66.2	12.0	32.7	0.0
LAC	62.2	83.6	23.6	62.2	32.9	12.2	14.1	8.7	12.2	32.9	50.0	69.4	14.9	50.0	0.0
SSA	46.2	76.9	38.0	49.2	10.0	4.8	8.8	3.7	4.3	10.0	41.4	68.1	34.2	44.9	0.0
ECA	19.5	23.7	18.8	22.2	8.0	7.5	12.1	6.7	7.4	8.0	12.0	11.6	12.1	14.8	0.0
HICs	35.3	54.0	29.2	35.4	4.6	11.7	14.3	10.9	11.7	4.6	23.6	39.7	18.3	23.6	0.0
China	37.5	43.0	37.3	37.5	26.1	13.7	23.7	13.4	13.7	26.1	23.8	19.3	24.0	23.8	0.0
MENA	14.7	37.8	13.5	22.1	0.7	1.9	11.8	1.4	2.5	0.7	12.8	26.0	12.2	19.6	0.0
GCC oil exporters	9.9	18.6	9.8	20.8	0.3	0.5	2.3	0.4	0.6	0.3	9.5	16.3	9.4	20.2	0.0
Other oil exporters	27.5	117.8	26.8	27.8	5.3	3.4	71.0	2.9	3.3	5.3	24.1	46.8	23.9	24.5	0.0
Oil importers	16.8	39.5	11.3	17.7	8.5	5.0	11.9	3.3	4.6	8.5	11.9	27.6	8.0	13.0	0.0
Oil importers w/ GCC links	18.7	48.8	15.4	18.7	5.3	1.1	1.7	1.0	1.1	5.3	17.6	47.1	14.4	17.6	0.0
Oil importers w/ EU links	16.1	38.0	9.3	17.2	8.5	6.5	13.6	4.4	6.3	8.5	9.6	24.4	5.0	11.0	0.0
Maghreb	25.3	33.3	24.7	25.7	5.3	3.6	12.2	2.9	3.5	5.3	21.7	21.1	21.8	22.1	0.0
Algeria	27.5	117.8	26.8	27.8	5.3	3.4	71.0	2.9	3.3	5.3	24.1	46.8	23.9	24.5	0.0
Egypt	15.9	50.6	8.1	17.5	8.7	7.8	20.4	5.0	7.6	8.7	8.1	30.2	3.1	9.9	0.0
Jordan	14.6	23.5	14.4	14.6	5.3	0.8	8.0	0.6	0.8	5.3	13.8	15.5	13.8	13.8	0.0
Lebanon	24.9	53.7	17.4	24.9	0.0	1.5	0.5	1.8	1.5	0.0	23.3	53.2	15.6	23.3	0.0
Morocco	31.1	54.7	16.5	33.5	5.3	14.5	20.4	10.8	15.3	5.3	16.7	34.3	5.7	18.2	0.0
Oman	20.3	52.0	12.0	20.3	0.0	5.4	23.0	0.8	5.4	0.0	14.9	29.0	11.2	14.9	0.0
Saudi Arabia	9.9	15.8	9.8	20.8	0.3	0.4	0.6	0.4	0.6	0.3	9.5	15.3	9.4	20.3	0.0
Tunisia	10.3	11.0	10.0	10.3	0.0	0.1	0.2	0.1	0.1	0.0	10.2	10.8	10.0	10.2	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data.

Table A13. Trade restrictiveness in HICs, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri-culture	Manu-factures	Nonoil	Oil	All	Agri-culture	Manu-factures	Nonoil	Oil	All	Agri-culture	Manu-factures	Nonoil	Oil
EAS excl China	9.4	41.3	5.2	10.2	0.6	3.5	19.7	1.4	3.8	0.6	5.9	21.6	3.8	6.4	0.0
India	6.1	16.0	4.9	6.4	1.5	2.2	3.7	2.0	2.3	1.5	3.9	12.3	2.9	4.2	0.0
SAS excl India	17.2	19.7	17.1	17.3	3.6	2.5	2.5	2.5	2.5	3.6	14.8	17.2	14.6	14.8	0.0
LAC	6.3	30.9	2.4	7.3	0.2	1.5	7.8	0.5	1.7	0.2	4.8	23.1	1.9	5.6	0.0
SSA	5.6	39.0	1.6	8.2	0.1	1.4	4.0	1.1	2.0	0.1	4.2	35.0	0.6	6.2	0.0
ECA	4.0	25.9	3.1	6.1	0.3	1.0	8.6	0.7	1.4	0.3	3.0	17.3	2.4	4.7	0.0
HICs	7.1	34.7	4.1	7.6	0.5	2.7	15.1	1.3	2.8	0.5	4.4	19.6	2.8	4.8	0.0
China	7.4	34.0	6.6	7.4	0.8	3.1	18.6	2.6	3.1	0.8	4.3	15.5	4.0	4.3	0.0
MENA	1.9	25.8	1.0	5.2	0.5	0.7	5.0	0.5	1.0	0.5	1.2	20.8	0.5	4.2	0.0
GCC oil exporters	0.7	2.4	0.7	1.6	0.6	0.6	0.9	0.6	0.6	0.6	0.2	1.5	0.1	1.0	0.0
Other oil exporters	0.3	16.8	0.2	0.4	0.2	0.2	1.5	0.2	0.1	0.2	0.1	15.3	0.0	0.3	0.0
Oil importers	7.2	33.2	3.1	8.2	0.6	1.3	6.3	0.5	1.4	0.6	5.9	26.9	2.5	6.8	0.0
Oil importers w/ GCC links	6.3	12.7	5.6	6.3	1.3	1.3	6.8	0.6	1.3	1.3	5.0	5.8	5.0	5.0	0.0
Oil importers w/ EU links	7.3	35.4	2.7	8.5	0.6	1.3	6.2	0.5	1.5	0.6	6.0	29.1	2.2	7.1	0.0
Maghreb	3.2	39.4	0.5	6.7	0.2	0.6	5.8	0.2	1.0	0.2	2.6	33.6	0.3	5.7	0.0
Algeria	0.3	16.8	0.2	0.4	0.2	0.2	1.5	0.2	0.1	0.2	0.1	15.3	0.0	0.3	0.0
Egypt	7.0	21.3	5.4	8.9	0.8	1.6	7.1	1.0	1.9	0.8	5.3	14.2	4.4	7.0	0.0
Jordan	10.3	21.5	9.5	10.3	3.3	2.1	16.3	1.0	2.1	3.3	8.2	5.3	8.4	8.2	0.0
Lebanon	1.2	7.2	0.2	1.2	0.0	0.2	1.0	0.0	0.2	0.0	1.0	6.2	0.2	1.0	0.0
Morocco	10.7	36.9	1.2	11.0	0.5	0.8	2.7	0.2	0.9	0.5	9.9	34.2	1.1	10.2	0.0
Oman	1.0	4.7	0.8	1.4	0.7	0.8	1.2	0.8	0.9	0.7	0.2	3.6	0.0	0.5	0.0
Saudi Arabia	0.7	1.6	0.7	1.7	0.6	0.6	0.8	0.6	0.6	0.6	0.2	0.7	0.1	1.1	0.0
Tunisia	4.5	51.1	0.8	5.3	0.2	1.5	17.7	0.2	1.7	0.2	3.0	33.5	0.6	3.6	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data. Note: The estimations exclude quotas on manufactured exports from Algeria, Morocco, Tunisia, Lebanon, Jordan, and Egypt to the EU as these countries have FTAs with EU.

Table A14. Trade restrictiveness in China, 2008 (in percent)

Exporting country	Overall Trade Restrictiveness					Tariffs					Ad-valorem Equivalents (AVEs) of NTBs				
	All	Agri-culture	Manu-factures	Nonoil	Oil	All	Agri-culture	Manu-factures	Nonoil	Oil	All	Agri-culture	Manu-factures	Nonoil	Oil
EAS excl China	10.5	15.2	10.0	10.9	3.0	4.2	9.3	3.6	4.3	3.0	6.3	5.9	6.4	6.6	0.0
India	7.9	22.0	7.5	7.9	5.0	3.3	4.4	3.3	3.3	5.0	4.6	17.6	4.2	4.6	0.0
SAS excl India	8.0	9.6	7.8	8.0	0.0	5.2	9.6	4.8	5.2	0.0	2.8	0.0	3.0	2.8	0.0
LAC	12.0	21.2	9.6	13.2	1.8	2.8	5.0	2.3	3.0	1.8	9.1	16.2	7.3	10.2	0.0
SSA	3.0	5.6	2.9	4.1	0.0	1.4	5.5	1.2	1.9	0.0	1.6	0.1	1.7	2.2	0.0
ECA	8.9	7.6	8.9	12.9	1.7	2.8	7.3	2.6	3.4	1.7	6.1	0.3	6.3	9.5	0.0
HICs	12.7	13.3	12.7	13.2	5.2	7.8	9.0	7.8	8.0	5.2	4.9	4.4	4.9	5.2	0.0
MENA	1.7	12.8	1.7	10.2	0.1	1.0	12.8	1.0	5.7	0.1	0.7	0.0	0.7	4.5	0.0
GCC oil exporters	1.2	11.8	1.2	8.4	0.1	0.7	11.8	0.7	4.8	0.1	0.5	0.1	0.5	3.6	0.0
Other oil exporters	6.8	14.0	6.8	109.3	0.0	0.0	14.0	0.0	0.5	0.0	6.8	0.0	6.8	108.8	0.0
Oil importers	15.0	13.0	15.0	15.6	5.6	10.2	13.0	10.1	10.4	5.6	4.9	0.0	4.9	5.1	0.0
Oil importers w/ GCC links	2.7	5.4	2.7	2.7	0.0	2.6	5.4	2.6	2.6	0.0	0.1	0.0	0.1	0.1	0.0
Oil importers w/ EU links	16.6	13.8	16.6	17.3	5.6	11.1	13.8	11.1	11.5	5.6	5.5	0.0	5.6	5.8	0.0
Maghreb	11.1	13.0	11.1	23.7	0.0	7.2	13.0	7.1	15.2	0.0	4.0	0.0	4.0	8.4	0.0
Algeria	6.8	14.0	6.8	109.3	0.0	0.0	14.0	0.0	0.5	0.0	6.8	0.0	6.8	108.8	0.0
Egypt	16.4	18.7	16.4	18.1	5.6	5.4	18.7	5.3	5.4	5.6	11.0	0.0	11.1	12.7	0.0
Jordan	2.8	5.3	2.8	2.8	0.0	2.8	5.3	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0
Lebanon	1.6	13.6	1.6	1.6	0.0	1.1	13.6	1.1	1.1	0.0	0.5	0.0	0.5	0.5	0.0
Morocco	15.1	21.1	15.0	15.1	0.0	15.0	21.1	14.9	15.0	0.0	0.1	0.0	0.1	0.1	0.0
Oman	0.1	11.8	0.1	2.9	0.0	0.1	11.6	0.1	2.3	0.0	0.0	0.1	0.0	0.6	0.0
Saudi Arabia	1.7	12.1	1.7	9.0	0.1	1.0	12.1	1.0	5.0	0.1	0.7	0.0	0.7	3.9	0.0
Tunisia	20.3	5.4	21.1	20.3	0.0	19.5	5.4	20.2	19.5	0.0	0.8	0.0	0.9	0.8	0.0

Source: Staff estimates using tariff data for 2008 and latest official NTB data. Note: The estimates exclude restrictive NTBs imposed by China on natural gas imports from Algeria. These are extremely high and distort the average protection rates faced by developing oil exporters in China.