Economic and Social Commission for Western Asia


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# Assessing Arab Economic Integration

## Trade in Services as a Driver of Growth and Development

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# Acknowledgements

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To ensure the report's relevance and high quality, the concept note of the report was presented and discussed in the Expert Group Meeting on Trade in Services organized in Tunis in June 2016, which included participants from the Organization for Economic Cooperation and Development (OECD), International Trade Centre (ITC), European University in Florence, World Bank, University of Tunis, Economic Commission for Africa (ECA), Centre d'études prospectives et d'informations internationales (CEPII) and the European Union delegation in Tunis. In addition, the report benefited from the comments and suggestions from the participants of two other expert group meetings held in Beirut in November 2016, on financial integration and the role of transport in global value chains connectivity. Participants includes experts from the International Monetary Fund (IMF), OECD, Central Bank of Lebanon, American University of Beirut, ADMAN, and ECA, among others.

Two background papers were commissioned to inform this report. The first, titled "Analysing Arab financial integration", was prepared by Fatma Marrakchi (University of Tunis 1). The second, "Challenges and opportunities of services trade liberalization under PAFTA and the DCFTA", was written by Raed Safadi (OECD and Dubai Economic Council). In addition, the report was peer-reviewed by Hans Lofgren (Senior Economist, World Bank). Internal peer review was provided by the members of the Publication Committee.

# Foreword

Services trade liberalization is a major avenue for extending the scope of regional and global economic integration initiatives, with potentially profound effects on the transformation of individual economies. This mainly stems from the fact that services account for a large share of output, employment, exports, and foreign direct investment. Accordingly, an efficient and competitive service sector is of great importance for sustained economic growth and employment generation.

This report makes the case that limiting trade agreements to goods will not generate significant gains to address Arab economic and social challenges. However, the inclusion of services, if accompanied by appropriate policies to support transformation of Arab economies through greater connectivity to global value chains (GVCs), should positively impact the development paths. This report shows that trade costs stemmed from unduly restrictive regulations may be two to three times higher for trade in services compared to trade in goods. This is a key factor behind the unexploited potential for regional and global integration of Arab economies.

Finally, the achievements of most SDGs is directly linked to the capacity of Member States to achieve a sustained and pro-poor economic growth. Evidence from international experiences and the results presented in this report strongly show that the role of trade is a key element for achieving such strategy. The objective of ESCWA is not limited to measure progress towards SDGs but to design appropriate policies and modalities. Accordingly, we must act quickly and efficiently to support our Member States in their efforts to secure the required funding to mainstream trade promotion as a major instrument to achieve the 2030 Agenda.

# Executive Summary

Economic integration is an important means to generate income and employment, to boost investment and to spur structural transformation toward more diversified and broad-based economic models. The Assessing Arab Economic Integration Report (AAEIR), the first edition of which came out in 2015, aims at assessing the performance of Arab countries in global and regional economic integration, with a view to identifying challenges, opportunities and strategies to foster intraregional and global economic linkages. In addition to providing an assessment of economic integration of performance of Arab countries as a regular component, the report also focuses on a distinct theme in each edition, offering a more in-depth analysis of a key issue the Arab region is faced with in the pursuit of closer regional economic integration. This edition of the report reviews the status of the service sector in the Arab region and issues related to the liberalization of services trade.

The focus on services is motivated by the fact that the services sector accounts for large and growing shares of output, employment and foreign direct investment (FDI). Services do not only satisfy domestic consumption and investment demands but are also exported and used as intermediate inputs. For instance, business services, design, advertising, transportation, and retail trade are essential inputs to other sectors. Services account for increasing shares of exports of value added and a key determinant of the extent and nature of global value chain (GVC) engagement.

A diversified and competitive services sector is not only important in itself but also for the productive efficiency of other sectors. For example, manufacturing exporters have a stake in open and more competitive services markets. At the same time, services producers are hurt by barriers to the trade in goods. For many economies, increasing the contestability of service markets, through reduction or removal of barriers to trade in services, would yield strong gains, especially if services trade barriers in place are high.

The report is divided into four chapters. Chapter 1 assesses the economic integration performance of Arab countries at the individual, subregional and global levels, providing insights into the challenges, risks and opportunities transpiring as the global economic outlook shifts. The analysis shows large differences across Arab countries in terms of the strength of their economic links within the Arab region and with countries in other parts of the world. However, the trade links between Arab countries remain marginal and are strengthening rather slowly, with the notable exception of the Gulf Cooperation Council (GCC), based on trade data until 2015.Beyond the Arab region, the economic ties of GCC countries with China and other countries in South East Asia have grown dramatically during the last decade, making the GCC countries highly vulnerable to shocks emanating from Asia. Also non-GCC Arab countries seem to focus on strengthening their economic links to Asia. For Arab Maghreb Union (AMU) countries,

trade with the European Union (EU) remains dominant, exposing them to the weakness in economic activity ensuing the EU sovereign debt crisis. Altogether, our findings indicate that the Arab countries have not managed to tap the potential returns from intra-Arab economic integration in the form of faster growth and strengthened resilience to the contagion of economic crises that have their origins outside the region. This statement is particularly true for the largest and/or wealthiest economies of the region.

Chapter 2 discusses the roles and importance of services in the economies of the Arab region, including the many channels through which services affect economic activity and productivity. As a result of their growing importance and increased tradability, services trade liberalization has become a major frontier in trade policy. The chapter also points to substantial gains from the liberalization of services trade: in fact, both ex-post and ex-ante assessments indicate that the gains would likely outstrip those of merchandise trade liberalization. In the Arab region, the services sector is an important source for economic activity, employment and investment despite the significant weight of public services in many economies of the region. The full extent of potential benefits and adjustment costs are closely related to various barriers in place.

Chapter 3 explores how Arab countries, as a rather heterogenous set with regard to their size, economic and social structures and endowments, compare to other regions and trading blocs across the world in terms of the output and employment shares of the services sector, revealing that Arab countries' performance in services output and trade is commensurately diverse. The chapter also attempts to evaluate the restrictiveness of services trade barriers at the country level and in comparison with other major regions and trading blocs in three key services sectors: transport, finance and telecommunications. The focus on these three sectors is justified on the grounds that their linkages to the rest of the economy tend to be strong, leading to potentially large gains from liberalizing these services. These three services subsectors also happened to be more restricted in the Arab region vis-à-vis other regions and major trading blocs. Among Arab subregions, GCC countries have rather restrictive regimes in most services. The chapter also illustrates that it is not a straightforward matter to assess the severity of barriers and measures that constrain services trade due to the fact that restrictions are not only imposed at the border but also include a wide range of policies and regulations that, in effect, may severely restrict trade in services.

Finally, chapter 4 discusses the priorities and challenges for Arab countries in negotiating services trade agreements. It also surveys results from several analyses of the effects of services trade liberalization under the Pan-Arab Free Trade Area (PAFTA) and Deep and Comprehensive Free Trade Agreements (DCFTAs) between Arab countries and the EU. It is found that GVCs have become critical to economic development and that Arab countries should try to enhance PAFTA and DCFTAs to respond to this new reality. In this regard, promoting a business environment and pursuing complementary policies that not only makes Arab countries attractive for the location of tasks within GVCs but also enhances the contributions of GVC participation to Arab economic and social development. At the same time, it is noted that services trade liberalization

may generate significant adjustment costs, something that calls for the design and implementation of appropriate accompanying policies. The chapter also argues that services trade liberalization is a potent means to achieve the Sustainable Development Goals (SDGs), significantly more so than merchandise trade liberalization. It illustrates the nexus between services trade liberalization and some selected SDGs, spanning gender equality and empowerment, poverty reduction and income distribution, and greenhouse gas emissions. In sum, services trade liberalization is an important and unavoidable policy challenge for Arab countries that, if pursued well, promises to yield great gains to Arab development.

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# Introduction

# Introduction

The achievement of deeper regional economic integration remains an important objective for Arab countries, arguably more important than ever. As outlined in the first edition of the Assessing Arab Economic Integration Report (AAEIR), greater regional integration would promise to contribute to economic growth, job creation, peace, and security in the region. Rapid changes in the global economic landscape add to the urgency of Arab integration (ESCWA, 2015).

Services trade liberalization is a major avenue for extending the scope of regional economic integration initiatives, with potentially profound effects on the transformation of individual economies and regional economic integration. This mainly stems from the fact that services account for large shares of output, employment and FDI; this is particularly evident for the high-income countries. A dynamic, efficient and competitive services sector is of great importance for employment and income generation and would provide a substantial impetus to manufacturing production and trade.

The contribution of services to economic activity exceeds its share in international trade by a wide margin. For instance, the services sector makes up around two-thirds of gross domestic product (GDP) of the G20 countries, and their exports of goods are four times as large as their service exports (as shares of GDP, 20 per cent and 5 per cent, respectively). Although services trade was growing rapidly prior to the global financial crisis of 2008, the share of services trade in global economic activity is still far below its potential (WTO, 2009). Miroudot, Sauvage and Shepherd (2013) argue that the main reason behind this outcome are the prohibitive costs that firms face in trading services internationally, making it unprofitable to do so, and not the non-tradability of services. The costs that firms face when trading services are mainly due to regulations (which create entry barriers or raise costs) and differences in institutions, culture and geographical location. In recent years, the profitability of trade in a wider range of services has increased thanks to cost-cutting technological progress in information, communication and transportation.

The services sector may be boosted by and contribute to GVC integration. While services rely increasingly on manufactures, a process of ‘servicification’ of manufacturing is under way, in other words, increased use of intermediate services by manufacturing accompanied by more extensive services-related employment in manufacturing. Restrictions on access to intermediate goods, including imports, not only undermine the downstream manufacturing sector but also the services sector that also uses these inputs and contributes inputs to manufacturing. In fact, producers in both manufacturing and services have a stake in open and more competitive markets for both goods and services.

The internationalization of supply chains and production networks represents new opportunities for small and medium-sized firms

in Arab countries as suppliers of both manufactured and services inputs without any need to develop a complete product within the boundaries of a single country. Currently, there is a large gap between the shares of services in Arab economies' GDP (which, in 2014, ranged from 30 per cent in Mauritania to 77 per cent in Lebanon) and the small shares of GDP represented by services exports which vary from 0.5 per cent of GDP for the AMU to 1.2 for the GCC compared to 2.7 per cent for all Arab countries, 16 per cent for ASEAN+3 and 6 per cent for the ASEAN itself.[1] This large gap suggests that the potential for services trade expansion is large.

The participation of firms in GVCs depends on effective coordination between production at different stages across countries. Such coordination is often hampered by barriers to trade and domestic regulations. For all Arab countries, recent estimates show that trade costs caused by regulations may be two to three times higher for trade in services compared to trade in goods. This is a key factor behind the unexploited potential for expanded services production and trade in the Arab region.

FDI has been identified as the most important channel through which services are traded. Estimates in OECD (2011) suggests that around half of the services trade takes place within firms via commercial presence. The upshot of this is that unlimited restrictions on cross-border flows of services and light and transparent regulation of the entry of foreign services would facilitate the expansion of services exports. In addition to making the business climate more attractive, such liberal policies are likely to boost efficiency gains in services markets by making them more contestable and competitive. Moreover, downstream sectors that use services as inputs would benefit from lower input costs if domestic services providers are exposed to competition. In sum, avoidance of unduly restrictive barriers to services trade could help ensure access of firms throughout an economy to more cost-effective services, improving their competitiveness.

An important difference between the sources of goods and services trade costs are regulatory measures. While some costs, most notably ad valorem tariffs on goods, are easy to quantify, the quantification of trade costs resulting from regulatory measures remains challenging. Barriers to trade in services are, for the most part, embedded in behind-the-border, domestic measures of a regulatory nature. Given the fact that the cross-border tradability of certain services is limited, access to best practices and new services crucially depends on FDI inflows. The regulation of services is, therefore, directly linked to investment, competition policy, and the movement of workers and capital.

Reflecting the increasing importance of services trade liberalization, services provisions are featured in most recent regional trade agreements (RTAs). At the multilateral level, the issue of services trade liberalization is tackled by the World Trade Organization (WTO) and the General Agreement on Trade in Services (GATS) whereas, at the level of the Arab region, they are addressed by the Pan-Arab Trade-in-Services Liberalization Agreement (which is being negotiated under the aegis of the League of Arab States) and the Euro-Mediterranean Partnership (which is based on the Istanbul Framework Protocol for the Liberalization of Trade in Services and the Right of Establishment). In addition, services are also addressed in the bilateral agreements between

the EU and individual Arab countries. The contents of these agreements are consistent with the Euro-Mediterranean Association Agreement, the EU response strategy towards the Arab Spring, and the negotiating directive of the European Council on the conclusion of DCFTAs.

To maximize gains from such initiatives, Arab countries need to carefully monitor and control the implementation of their trade commitments. The DCFTAs that currently are under negotiation bilaterally between the EU and several Arab countries, including Egypt, Jordan, Morocco, and Tunisia, aim at establishing regulatory frameworks that are compatible with EU standards. The long-run ambition is to create a free trade area between the EU and the Arab Mediterranean Countries (AMCs). Against this backdrop, the EU and Tunisia recently launched a support programme meant to improve the competitiveness of Tunisia's services sector in the context of domestic market liberalization and reduced trade barriers. The programme covers health, technology and communications, tourism, and accounting and advisory services. Beyond their microeconomic aspects and approaches, these support programmes are also macroeconomic instruments aimed at alleviating the cost of structural transformation by fostering job creation. The different DCFTAs may also add to the long-term growth potential of the Arab partner countries given the fact that the productive capacity of the population should be boosted by improved services in areas such as health, education, finance, transport, and communication.

This report seeks to address the above issues and present the necessary tools for assessing protection of trade in services and quantifying the gains and costs from liberalizing the sector at the country and regional levels. The tools used are applied to the economy as a whole and to the subsectors that seem most important for the regional integration and the competitiveness of Arab countries. The report is organized as follows. Chapter 1 is an update to the Arab Economic Integration System of Indexes (AEISI), which was developed and presented in the first edition of the AAEIR (ESCWA, 2015). The indicators summarize the performance of the Arab region in terms of economic integration at the global and regional levels, as well as the level of economic integration between each pair of Arab countries. The measurement of integration is structured around three key flows: exports, FDI inflows and workers' remittances. The index assesses a number of integration indicators, which are chosen based on the research that underpins this report as well as a literature review. The results provide insights about progress and gaps in economic integration in the region.

Chapter 2 provides an analytical background on the role of the services sector in economic activity and trade integration, including a theoretical discussion on the imperative for trade in services in economic development strategies. This chapter analyses benefits of services trade liberalization and measures the role of services trade and goods trade using the Trade in Value Added (TiVA) database.

Chapter 3 details the specificities of Arab integration with a focus on trade in services, highlighting the status of integration for sectors that are vital for growth, diversification and job creation, as well as the policies and frameworks in place to promote cross-country linkages. In this chapter, the various structural characteristics of Arab countries help to provide a more comprehensive picture of services trade

integration in the region. In assessing barriers to trade in services, the chapter focuses on three major sectors: transport, telecommunication and financial services.

Chapter 4 deals with opportunities and challenges of integrating trade in services into PAFTA and agreements partners from outside the region, most importantly the EU in the context of its ongoing negotiations on DCFTAs with four Arab countries: Egypt, Tunisia, Morocco, and Jordan. This chapter provides, for the first time, an analysis of the economic gains that potentially could be generated by expanded services trade in the region. The chapter also discusses and provides some evidence that services trade liberalization is an important vehicle to promote and achieve SDGs by going beyond the classical ex-ante assessment of the economic impacts of trade reforms to cover implications of deeper services trade liberalization on some important cross-cutting issues including impacts on employment by gender, FDI by sector and origin, income distribution and poverty, and emission of greenhouse gases (GHGs). These assessments have been carried out using the most tailored simulation techniques.

Chapter 5 concludes by discussing implications of the findings of this report for policies related to Arab economic integration. Special attention is given to the political economy dimensions of trade reforms.

# 1. Recent Developments in the Intraregional and Global Economic Integration of Arab Countries

# 1. Recent Developments in the Intraregional and Global Economic Integration of Arab Countries

Under the right conditions, economic integration is a boon to an economy, as confirmed in a vast empirical and theoretical literature (ESCWA, 2015). Stronger trade and investment links with the rest of the world may have a favourable impact on the allocation of resources, the accumulation of the factors of production, and the efficiency with which they are employed. In turn, this may lead to sizable gains in economic outcomes. The depth and scope of economic integration in terms of product and geographical coverage also matter. Addressing a major gap in the literature and research to date, this chapter aims at evaluating the economic integration performance of Arab countries at the individual, subregional and global levels, using the AEISI.

This chapter also explores the challenges, risks and opportunities associated with the changing global outlook and its implications for Arab economic integration at the global, intraregional and bilateral levels. The prospects for deeper intra-Arab economic integration in a changing international environment are also discussed. The evolution and dynamics of extraregional integration of Arab countries are analysed with a view to providing insights into possible consequences for intra-Arab economic integration.

Following the first edition of the AAEIR, the subregions considered in the analysis are AMU, GCC and the Arab countries that do not belong to either AMU or GCC. The latter group is further divided into east developed countries (LDCs) (Comoros, Djibouti, the State of Palestine, Somalia, the Sudan, and Yemen) and diversified Arab economies (Egypt, Iraq, Jordan, Lebanon, and the Syrian Arab Republic).[2]

The period of analysis, 2013-2016, is not characterized by strengthened global and regional economic integration. This may be due to several factors. Chief among them is the slowdown in global trade and economic activity. This period also illustrates the risks to which Arab countries are exposed as a consequence of increased integration with the EU and China since 2000. Last but not least, terms of trade shocks, stemming from the volatility of oil and other commodity prices, have affected both oil-exporting and oil-importing Arab countries. The shock was particularly drastic for the former group, which experienced a strong negative fiscal shock, affecting their economic growth and their pursuit of strategies for economic integration.

The chapter starts by providing country rankings based on globalization scores. Changes in scores and ranks are also explained

in light of trends and recent developments that have affected the momentum toward globalization since the publication of the first edition of the AAEIR. Country drivers and patterns of globalization are identified and discussed in regional contexts. Comparisons are also made between the performance of individual Arab countries and the Arab region as a whole. One noteworthy development is the strengthening of trade and financial links between Arab countries and China and other parts of Asia, following the spectacular rise of this region in recent years. This section concludes that Arab countries are nowadays more vulnerable to spillover effects through a shock emanating from Asia. Likewise, AMU countries are affected by developments (positive or negative) in the EU. The first part of the chapter evaluates the vulnerability of Arab countries to such shocks using a dependency index that is based on indicators related to external resource flows in support of economic growth via international integration. The analysis is deepened by the use of dependency indexes based on bilateral data, which provide a more detailed picture of country-level patterns of economic integration at the inter- and intraregional levels. In addition, the first part of the chapter also investigates the influence of terms of trade shocks on Arab countries' integration performance; this investigation uses a bilateral intensity version of dependency rankings with a view to reflecting on the role of each subregion as a driver of intra-Arab economic integration.

The second part of this chapter identifies opportunities for further intra-Arab economic integration. To this end, it follows a new approach based on the scoreboards of the AEISI; the approach differentiates between enabling factors, the outcomes of the trade strategy developed, and policies adopted to boost economic integration in the Arab region. Indeed, since the first edition of the AAEIR, data have been updated and improved as previous estimates have been replaced by new actual data. Furthermore, when interpreting results, it is important to keep in mind that high and low values in the rankings are only a measurement of the extent to which a country is connected to the world relative to the best and worst performers. For example, it does not tell whether a country's level of openness is optimal. Against this background, AEISI rankings are only based on data for exports, FDI inflows, and remittances; the reason is that this allows for better assessment of the extent to which a given economy benefits from its insertion into world markets thanks to its success in capturing parts of international demand and related payments (which are payments related to goods exports, FDI that may embody technological advances and human capital exports).

In recent years, several notable changes have taken place in the economic integration environment and the performance of Arab countries. World trade volume (goods and services) growth weakened to hit 2.3 per cent in 2016 compared with 2.6 per cent in 2015 (IMF, 2017). Between 2013 and 2016, the economic integration rankings were affected by significant global economic challenges: a slump in oil and other commodity prices, China's economic slowdown, recession in Russia and Brazil, and geopolitical tensions. Growth, trade and investment for countries that are deeply integrated with China, Brazil and Russia were affected. In the meantime, combinations of cyclical and structural factors have influenced the global, regional and bilateral economic integration of Arab countries. The cyclical factors

include a slow recovery from the financial crisis in developed countries, the rise in protectionism that followed in its aftermath, and lower commodity and oil prices. Typically, the impacts of cyclical changes disappear rapidly as economies returns to their initial situations. Indeed, the depressing impact of the slow recovery in advanced countries on economic integration may vanish before long.
If structural (as opposed to cyclical) factors explain a large part of the slowdown in economic integration, then the integration dynamics of the Arab region may have changed more fundamentally, perhaps even putting into question the roles of exports as an engine for growth and development. However, most of the changes in the international integration landscape in recent years seem to have been cyclical. Cyclical shocks might be the tip of the iceberg of risks that the changing international landscape is bringing. Large spillover effects from economic shocks in China to the world economy have been documented in the trade literature. The Arab countries that have developed strong ties with the ASEAN+3 countries may have to face the reality of their exposure to a new source of crisis contagion risk.

As discussed earlier, various indexes have been computed that measure performances in two ways: a globalization ranking is used to measure a country's overall connection to the rest of the world; and a dependency index measures country success in capturing global payment flows related to goods exports, human capital (via workers remittances) and foreign investment. For this edition of the AAEIR, data for 2016 has been used whenever available. Given its theme, services trade performance and policies are analysed in detail in the following chapters.

## A. The global trade slowdown: the 'new normal' of Arab countries' globalization

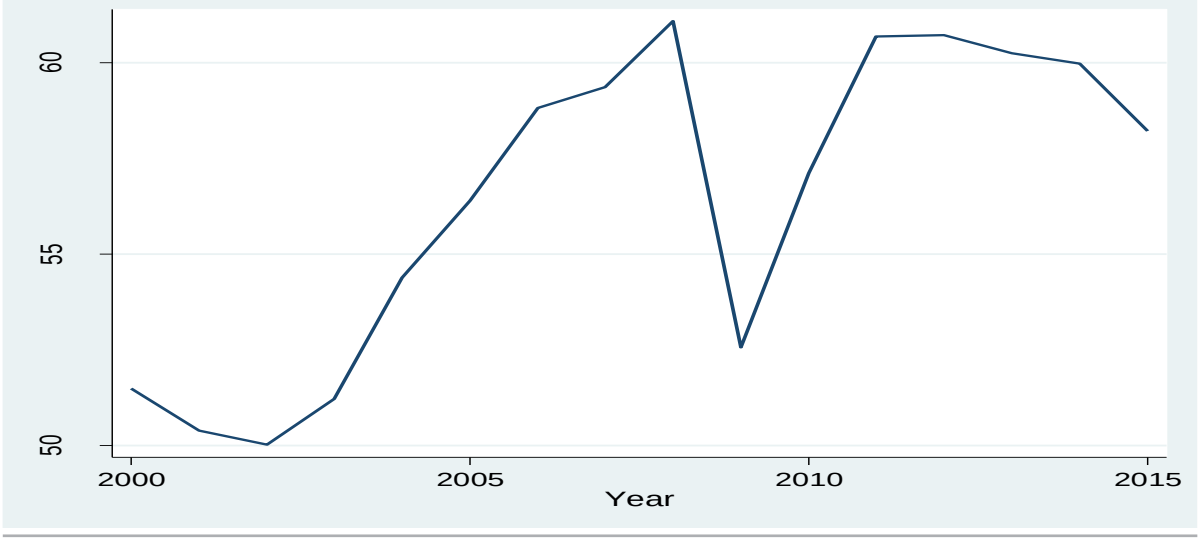
Krugman (2014) suggests that "'hyper-globalization' — the big increase in trade relative to GDP in the two decades after 1990 — was a 'one-off affair", and that "the flattening out of flattening is neither good nor bad, it's just what happens when a particular trend reaches its limits". While hyper-globalization might have been an exceptional episode, the slowdown in global trade will generate additional challenges for Arab countries in their attempts to achieve a higher share of the world demand for goods and services. In fact, an increased share in global trade that does not grow may be harder to achieve if countries and firms try to protect their exports from shrinking.

World trade is expected to gather pace after a double-dip recession during which trade fell from above 60 per cent of world GDP to roughly 50 per cent. Nevertheless, a full recovery of the world economy appears to be out of reach in the short run (figure 1). Therefore, countries may find themselves struggling with fewer export opportunities and limited scope for productivity improvements through FDI, specialization and technology diffusion (Constantinescu, Matteo and Ruta, 2014). Nevertheless, countries that have developed and use their comparative advantages to successfully insert themselves into global value and supply chains may be less negatively affected. Closeness to a fast-growing hub and/or being part of an efficient regional integration scheme may prove critical. In 2016, Luxembourg, Singapore, Malta, Viet Nam, Belgium, Moldova, the Netherlands, Slovakia, Ireland, and Honduras held the top ten ranks of the globalization index. As mentioned in the first

edition of the AAEIR, small, developed and prosperous countries tend to be more open and thus more globalized than larger ones. Conversely, relatively large and more self-sufficient countries, such as the United States, Japan, Australia, the United Kingdom, China, and India hold the bottom of the ranking. The very bottom is occupied by countries that are conflict-affected and/or handicapped by a combination of small size, extreme poverty, and economic and geographic isolation, examples of which include Venezuela, the Sudan and Iran.

In 2015 and 2016, half of the top 10 most globalized countries were European, and 10 European countries were among the top 15. Since the onset of the European sovereign debt crisis in 2009, northern and eastern European countries have steadily improved their rankings. This may be compared to the situation in 2014, when only six European countries were in the top 15. Yet, Singapore, an ASEAN country and a major regional hub, has regularly topped the ranking since 2013.Viet Nam, one of our benchmark countries, is the perfect textbook illustration of the impact an active trade strategy may have on the insertion of a small country in regional value chains. This middle-income country became member of the WTO in 2007 and has since then undergone a rapid industrialization process. In 2012, Viet Nam entered the top 10 of the globalization ranking and, in 2015 and 2016, it was in the fourth position. In parallel, the country moved from the ninth to second position in terms of the ratio of exports to GDP, and from the ninth to the first position for the import-to-GDP ratio.

**Figure 1.** Trend in the world trade (Percentage of world GDP)



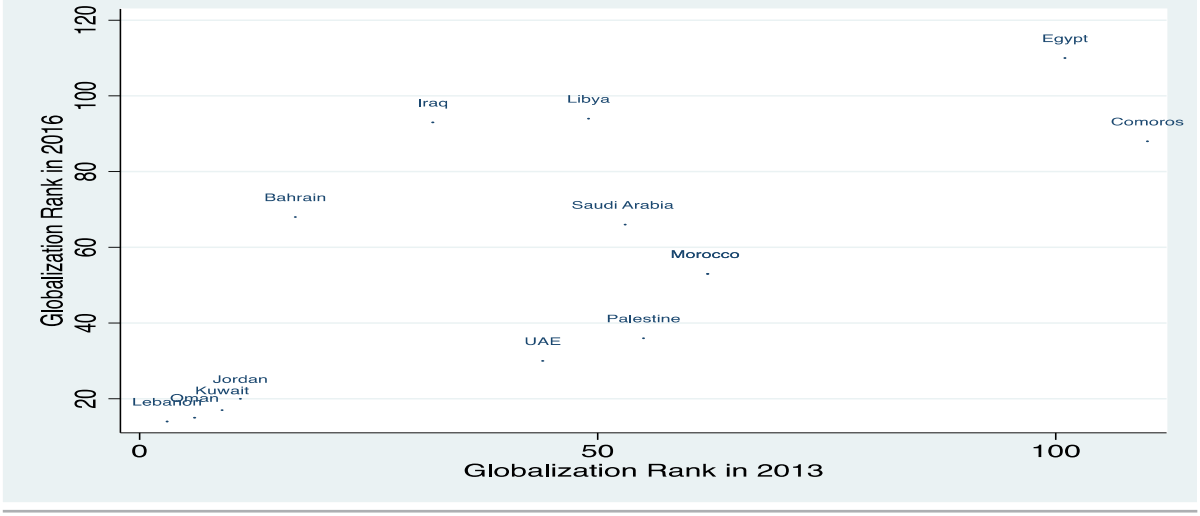

**Source:** Authors' calculations using World Integrated Trade Solution (WITS) Database (last accessed on October 10, 2017) (World Bank, n.d.).

Up to 2014, the globalization rankings of Myanmar, Indonesia, Brunei Darussalam, the Philippines, and Cambodia rose steadily. Since then, they have all fallen to lower positions, largely due to China's rebalancing and ensuing uncertainties about the future of these economies.

In 2012 and 2013, the top 20 in the globalization ranking included seven Arab countries (Lebanon, Oman, Kuwait, Jordan, Bahrain, Somalia, and the United Arab Emirates); among these, three were among the top 10 (Lebanon, Oman and Kuwait). However, in 2016, no Arab country was in the top 10 and only four managed to stay in the top 20. The two top performers, Lebanon and Oman, lost 11 and 9 spots between 2013 and 2016, moving down from the 3rd to the 14th rank, and from the 6th to the 15th rank, respectively. Kuwait and Jordan were ranked 17th and 20th. Out of the Arab countries covered in the analysis, only Comoros, Morocco and Yemen improved their performance. The rankings of remaining Arab countries declined, in some cases drastically (figure 2).

The globalization index, which captures the relative performance of countries in terms of global integration, reflects the impact of the 'new normal' international trade environment on economic integration.[3] Over the period 2013-2016, Arab countries had opportunities to insert themselves in GVCs. However, the global trade slowdown is most likely not a cyclical issue. The extremely low elasticity of global trade to GDP, observed to be around 1.6 in 2013, may not revert back to previous level of 2.8 in 2007 (OECD, 2017). From a historical perspective, the unusually strong elasticity observed during the 1990-2007 period is attributable to pro-trade structural factors that are no longer present, such as decreasing transport costs, reduction of trade barriers and declining relative prices of traded commodities and services. As a consequence, current trade volumes are no longer as responsive to a given level of income growth.

**Figure 2.** Arab globalization rankings in 2013 and 2016




**Sources:** Author's estimates using Comtrade, 2017; World Economic Outlook, 2015; UNCTAD, 2017; World Bank database (last accessed on October 10, 2017).

**Box 1.** Morocco's insertion into global value chains

Morocco's recent successful insertion into the automobile global value chain (GVC) exemplifies how an individual country may take an initiative that expands its trade in the context of a global trade slowdown. It also exemplifies the untapped potential for Arab countries to participate in the international economy. In an attempt to diversify its sources of growth through the development of its automobile industry, the country launched the Renault factory in Tangier in 2012. Since then, the sector has grown by more than 20 per cent per year, turning it into a major driver behind Morocco's exports. The anticipated start of automobile production by Peugeot Citroen on its territory should help the country further consolidate its position.

As a corollary, since 2013, the country has benefitted from a surge in foreign direct investment (FDI), every year reaching 3 per cent of the gross domestic product (GDP). Besides, FDI has successfully been channeled towards manufacturing (as opposed to the traditional tourism and construction sectors), something that will strengthen this sector, which accounted for 16 per cent of GDP in 2014. This is also a step towards improving the technological content of the country's exports, further fueling its insertion into GVCs.

Morocco's recent achievements may help bring about a structural transformation that permits it to raise the standard of living and significantly expand the domestic market. For now, major socioeconomic shortfalls weigh on the country's growth in GDP and exports. In 2015, GDP real per capita in Morocco stood at around $3,200 against $7,600 for Bulgaria, $9,500 for Romania, and $11,500 forTurkey, three alternative destinations for European investments (World Bank, 2017a).

**Source:** Constantiescu, Mattoo and Ruta, 2016.

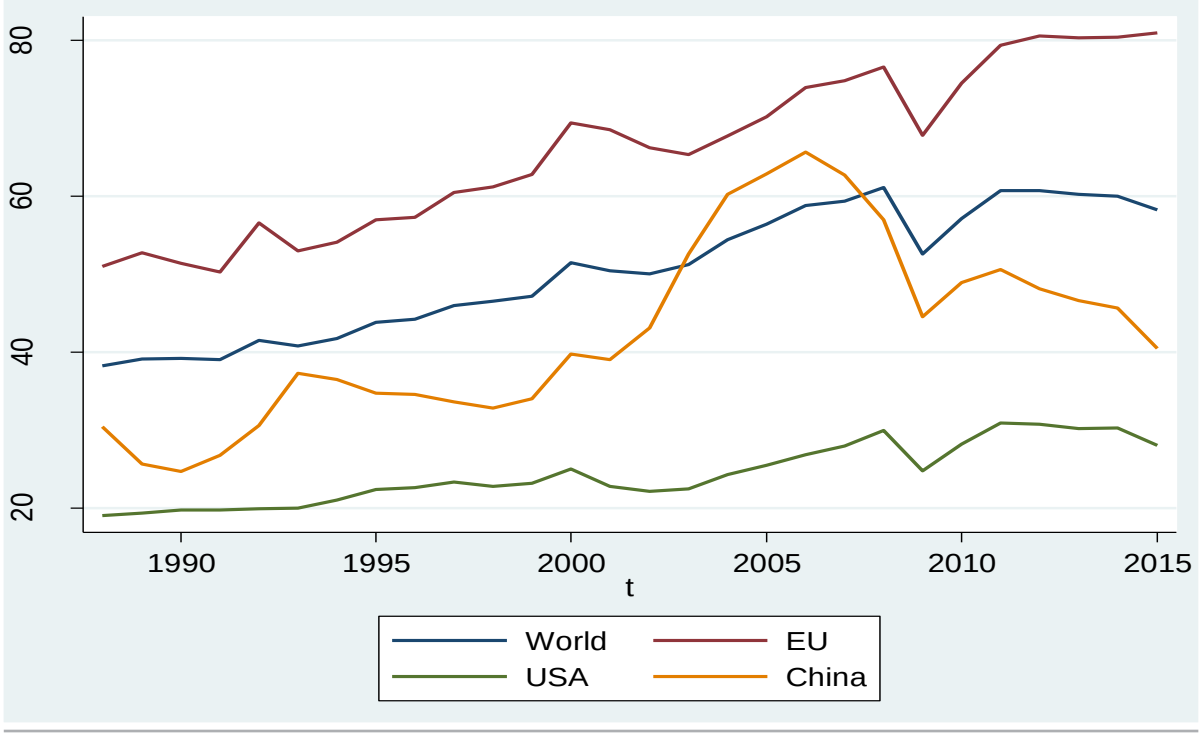
Under the 'new normal', countries may have to re-evaluate the strategy of relying on exports as an engine of strong economic growth going forward (Lewis and Monarch, 2016). Nonetheless, as is illustrated in the next section, there is still room for further expanding global value chain networks and widening the scope of international division of labour in Arab countries, which lag behind the globalization process (box 1).

## B. The interlinkages between global and Arab integration performance

Since the mid-2000s, economic ties between China and Arab countries have been deepened and strengthened substantially. However, the opportunities offered for Arab countries by this new trading partner diversification are accompanied by risks. As mentioned previously, the recent slowdown in China's growth is due to both cyclical and structural factors; in 2014-2016, the latter may explain two thirds of the slowdown (Constantinescu, Matteo and Ruta, 2016). The combination of China's high trade-to-GDP share reaching 60 per cent in 2006 (figure 3) and then after its growth slowdown has increases the likelihood of some degree of crisis contagion originating from China's economy.

The impact of China's slowdown has mainly been transmitted to commodity-exporting countries, which have suffered from a slump in commodity prices largely due to China's slower demand growth; China absorbs more than half of the world's production of iron ore, refined cooper, primary aluminum, smelted and refined nickel, while its share in the world's oil consumption is lower, at 11 per cent (WEO, 2015; Gauvin and Rebillard, 2015; Aastveit, Bjornland and Thorsrud, 2012). The EU economy continues to pick up following the Greek debt sovereign crisis and its implications on other similar EU countries suffering fiscal stress (Spain and Portugal).

**Figure 3.** Trade by major economic actors, 1985-2016 (Percentage of GDP)

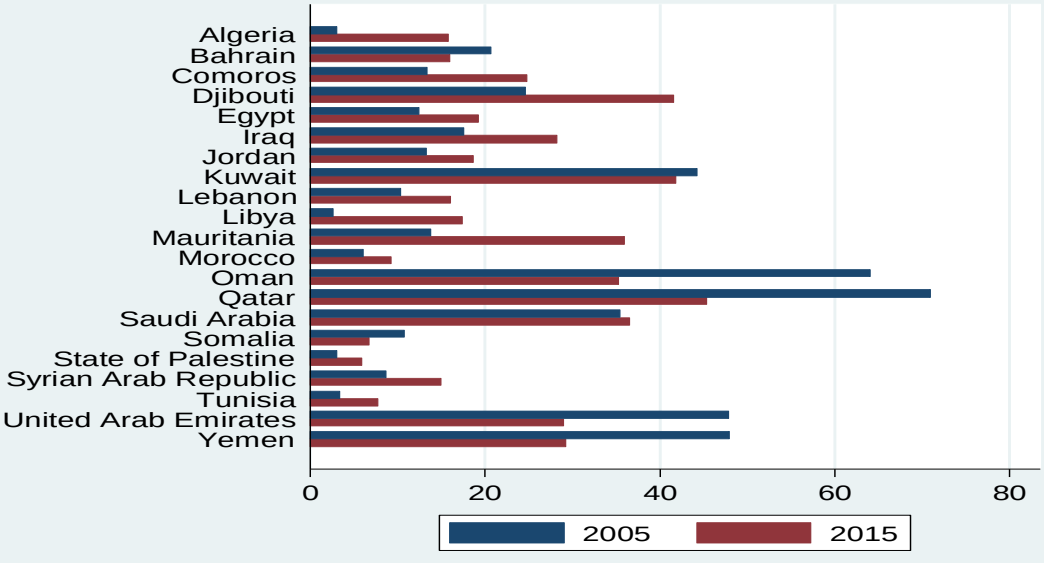



**Source:** Authors' calculations using World Bank, n.d. (last accessed October 10, 2017).

China's capacity to attract new partners wishing to benefit from its traction power has extended far beyond Asia. African countries have taken an eastward shift in the aftermath of the 2008 global financial crisis in developed countries. In 2016, China even became Germany's main trading partner. Its trade with Latin America saw a 21-fold increase between 2000 and 2016 and, in 2016 alone, Latin America received $21 billion from Chinese policy banks (Myers and Gallagher, 2016). Accordingly, shocks originating in China can spread to Asia, Africa, Latin America, and Europe, although with differentiated impacts depending on the strength and the nature of the economic links.

The economic expansion of ASEAN+3 was a windfall for the Arab region, too. Countries that strengthened their trade ties with ASEAN+3 are rich in natural resources and include the GCC, Djibouti, Yemen, and Mauritania. Figure 4 shows that total trade between Libya and ASEAN+3 increased fivefold. Algeria trade increased fourfold. In the case of Iraq, Qatar, Djibouti, Egypt, Syrian Arab Republic, and Tunisia, trade increased roughly by 50 per cent. Trade with ASEAN+3 for other diversified Arab economies such as Jordan and Morocco increased drastically between 2000 and 2015. Similarly, the trade of AMU countries with ASEAN+3 has also increased significantly in recent years. As of 2015, ASEAN+3 accounted for 30 per cent of total exports for the majority of Arab oil-exporting countries, except Bahrain.

**Figure 4.** Share of ASEAN+3 in Arab countries total trade

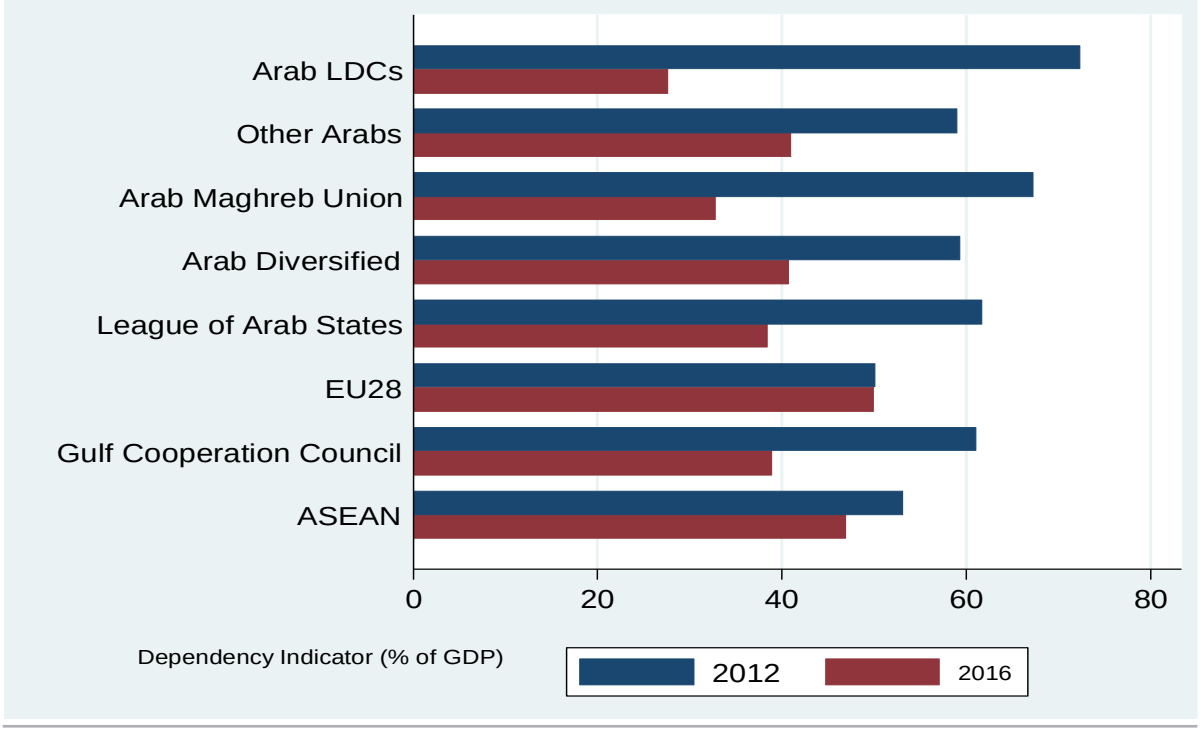



**Source:** Authors' calculation using Comtrade, 2017 (last accessed October 10, 2017).

Turning to the drivers behind changing globalization rankings, in 2015, lower export volumes and declines in oil and other commodity prices led to declines by around 20 positions in the exports rankings of Algeria, Libya and Iraq, while the impact on the GCC was negligible. The pattern of change in 2016 was different as all of the just mentioned countries experienced sharp declines in their exports rankings. Imports did not adjust as strongly, leading to higher imports rankings in 2015 by 15 to 20 spots for the GCC countries, Algeria and Iraq. The adjustment occurred in 2016, when the rankings of Bahrain, Oman, Saudi Arabia, and Libya fell by around 15 positions. On the foreign investment side, most of the main Arab oil exporters lost ground. In 2015, investors returned to developed countries due to multiple factors: lower oil prices (which made the energy sector less attractive), an anticipated increase in interest rates in the United States, and higher volatility of stock markets in Asia. Arab LDCs (such as Yemen, Mauritania and Djibouti) had to cope with the same difficulties on the export side but their imports had already fallen in 2015. However, FDI inflows and outflows were less affected than for other countries so the rankings of the Arab LDCs remained largely unchanged.

The dependency rankings monitor a country's success in exporting goods, generating remittances and attracting FDI. The ranking of each country is based on the sum of these three flows expressed as shares of GDP. A second indicator, the composite indicator, measures the additional financial resources a country gets (loses) with the deepening (weakening) of its economic ties with a given region or partner and how economic integration fosters (dampens) its economic activity/growth. In turn, economic integration increases countries' exposure to foreign shocks. Figure 5 shows the dependency indicator and exhibits a trend toward less dependency, especially for GCC and Arab LDCs.

**Figure 5.** Trend of aggregated dependency indicator for Arab subregions compared with the EU-28 and ASEAN, 2012-2016

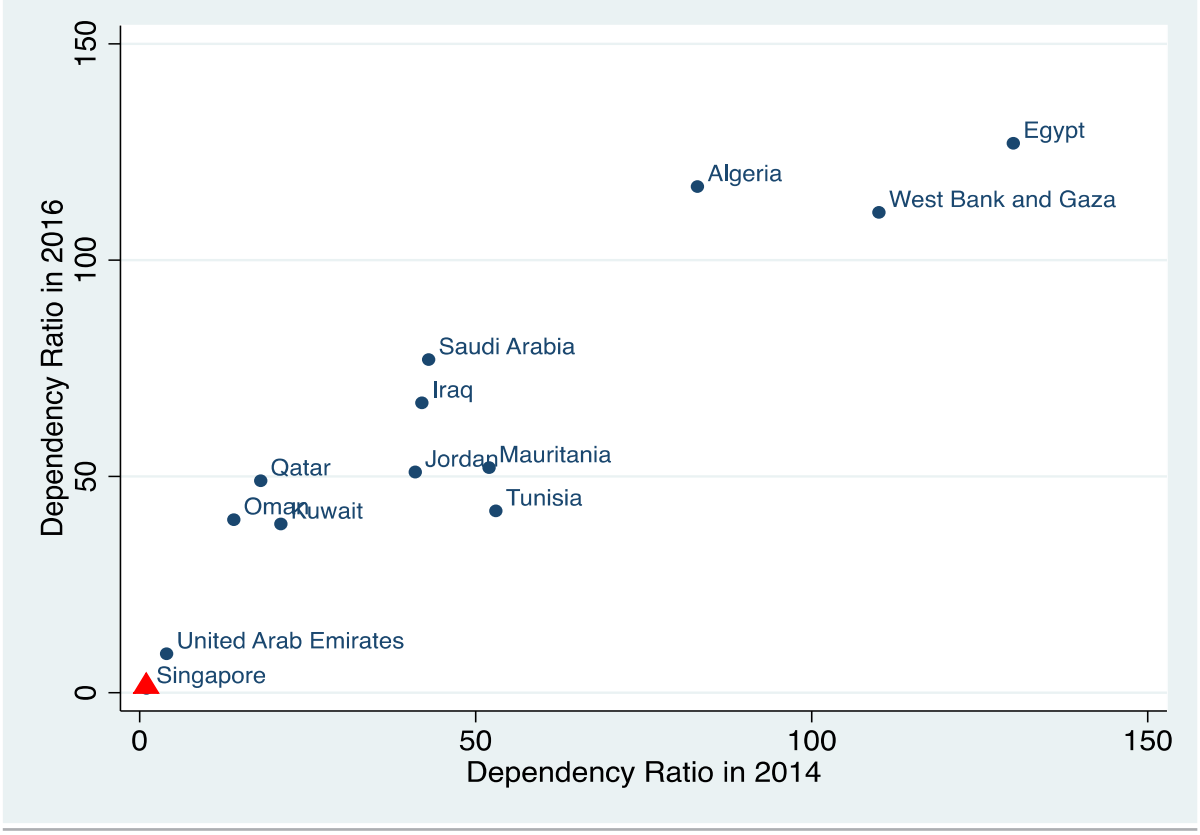



**Source:** Authors' estimates using Comtrade, 2017 (last accessed October 10, 2017); and World Bank database (last accessed October 10, 2017).

China's growth slowdown and the ensuing weakness in energy and other commodity prices translated into a drop in the globalization rankings of most Arab natural resources-exporting countries. In the period between 2014 through 2016, Algeria, Jordan, Iraq, and all GCC countries except for the United Arab Emirates fell in the rankings by 15 to 30 spots. Mauritania, a global trader in iron and a key partner of China, retained its ranking between the two years under consideration (table AI.1).

The strengths of the linkages of the GCC and ASEAN with the rest of the world declined for both, but more strongly for the GCC. In 2012, the sums of the GDP shares for exports, FDI inflows and remittance inflows amounted to 69 per cent for the GCC and 58 per cent for the ASEAN; in 2015, these two sums shrank to 44 per cent for the GCC and 52 per cent for the ASEAN. The level of connection to the world of the AMU countries receded in the same proportion as the contribution of exports, FDI and remittance inflows to their economic growth, which was cut by half over the same period, from 45 per cent in 2012 to 22 per cent in 2015. This is the result of a changing international landscape coupled with economic fatigue from the long-lasting crisis in Europe, its main partner by far. The magnitude of the adjustment was similar in Arab LDCs as the dependency index fell from 20 per cent in 2012 to 7 per cent in 2015.

**Figure 6.** Arab dependency ratios in 2014 and 2016




**Sources:** Authors' estimates using Comtrade, 2017; and World Bank, 2017b (last accessed October 10, 2017).
**Note:** Being conflict zones, data on Libya, the Syrian Arab Republic and Yemen are not available for recent years. Please refer to table AI.2 for a detailed list of countries and their corresponding total dependency ratio.

FDI inflows to Arab countries contracted in 2015, which was also accompanied by reduction in FDI outflows. The same patterns can be observed in Morocco, Tunisia and Somalia. Although the latter countries are more dependent on their exports, the case of the United Arab Emirates illustrates the benefits from having a more diversified economy. The country is very much exposed to exogenous shocks from Asia, but it has performed as well as the group of diversified countries.

## C. Intra-Arab integration as a global shock absorber

One of the central issues this report attempts to address is whether intra-Arab integration can act as a buffer zone to international shocks. In this edition of the AAEIR, dependency ratios are organized by partners so as to highlight the relative loosening/intensification of Arab countries' relation with other Arab countries and other selected partners (table below).

First, the table shows that the intraregional integration of the GCC with other Arab countries and subregions remains weak; its relatively strong integration with Jordan is the main exception. Mauritania has negligible ties with Arab countries, its dependency ratios ranging between 0.0and 0.3 per cent. Among Arab LDCs, Somalia has developed strong economic ties with the GCC, in particular Saudi Arabia, the United Arab Emirates and Oman. The recent sharp and sustained decline in oil prices has led to a marked decline in the exports and hence export revenues of all the GCC countries and, thereby, impacted their role as a potential engine for intra-Arab economic integration. However, this is not the case for AMU in terms of the importance of its integration with the rest of Arab countries. In fact, all AMU countries, individually and as a bloc, enjoy strong economic ties with the EU, registering dependency ratios of 14 per cent for Algeria, 16 per cent for Morocco, 7 per cent for Mauritania, and 26 per cent for Tunisia.

In the meantime, in the context of economic difficulties faced by the GCC countries, its links to Jordan and Lebanon contracted in 2015 compared to 2014. This has been manifested by a shrink in the dependency ratio with the GCC in Jordan from 12 per cent to 5 per cent and in Lebanon from 7 per cent to 2.2 per cent during 2014-2015. The latter is a sizable setback for these two countries as they are dealing with the spillover effects caused by the conflict in the Syrian Arab Republic. Together with Egypt, the State of Palestine and the Syrian Arab Republic, Jordan and Lebanon are also among the Arab countries that benefit most from remittances from the GCC and Libya. It is also worth noting that the integration (or dependency) ratios within the non-GCC Arab subregions are lower than those of the GCC.

The table below also exhibits the degree of integration levels during 2014-2015, measured in terms of dependency ratio for the 22 Arab countries across the following regional blocs: GCC, AMU, other Arab countries, EU, ASEAN, and the rest of the world. In other words, the table summarizes the state of integration for Arab countries with different parts of the world economy. In the meantime, it is important to reiterate that, globally, increased integration has an important positive impact on growth and income across countries (Rodriguez and Gill, 2006). In this section, we will try to develop a better understanding of this issue.

To begin with, AMU integration with the GCC and the remaining Arab countries is marginal and did not hit the 1 per cent change in relative terms. Its level of integration with the EU is far more developed. Both Tunisia and Algeria have increased their trade and financial links with the EU, reaching dependency ratios of 21 and 12 per cent, respectively. Even though Morocco's dependency rate decreased from 29 per cent in 2014 to 16 per cent in 2015, links between Morocco and the EU remain of great importance.

The integration of the remaining Arab countries (in our LDC and other Arab country groupings) with both the GCC and AMU blocs is weaker. For a majority of these 11 countries, the dependency ratios with the GCC and AMU regions declined between 2014 and 2015. This could partly be due to austerity measures in the GCC countries following fiscal stress and debt accumulation in the wake of the decline in oil prices. Integration of this Among the remaining group of Arab countries, some countries, including Lebanon, Iraq and Somalia, increased their integration degree into the world economy.

One drawback of increased global integration as opposed to regional integration is a higher exposure to worldwide economic volatility. However, such effects largely depend on whether Arab countries' integration with the rest of the world is diversified which, in turn, could help in mitigating the impact of Arab economic shocks.

Dependency ratios of Arab countries vis-à-vis Arab and other subregions, 2014-2015 (Percentage)

| | GCC | | AMU | | Rest Arab | | EU | | ASEAN | | Rest of world | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 |
| Algeria | 0.0 | 0.0 | 1.4 | 0.9 | 0.3 | 0.3 | 2.2 | 14.3 | 0.1 | 0.4 | 7.6 | 2.1 |
| Bahrain | 60.4 | 16.0 | 0.9 | 0.6 | 2.0 | 1.0 | 12.9 | 3.5 | 0.1 | 1.6 | 32.2 | 16.2 |
| Comoros | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.2 | 0.9 | 4.8 | 0.4 | 6.4 | 11.6 |
| Djibouti | 2.7 | 2.6 | 0.0 | 0.0 | 2.0 | 1.9 | 0.2 | 1.1 | 23.5 | 0.2 | 22.5 | 11.4 |
| Egypt | 2.0 | 1.5 | 0.7 | 0.6 | 0.9 | 0.9 | 1.1 | 2.8 | 0.2 | 0.2 | 2.6 | 10.3 |
| Iraq | 0.2 | 0.2 | 0.4 | 0.4 | 0.8 | 0.7 | 0.1 | 5.0 | 0.1 | 1.0 | 12.3 | 24.4 |
| Jordan | 5.1 | 5.1 | 0.7 | 0.5 | 5.0 | 3.8 | 7.7 | 1.5 | 0.0 | 0.6 | 9.0 | 25.5 |
| Kuwait | 1.6 | 2.2 | 0.1 | 0.1 | 3.4 | 3.2 | 0.3 | 3.7 | 0.0 | 5.0 | 22.8 | 28.2 |
| Lebanon | 2.8 | 2.2 | 0.3 | 0.2 | 1.9 | 1.7 | 0.1 | 0.9 | 0.2 | 0.0 | 3.0 | 21.7 |
| Libya | | | | | | | | | | | | |
| Mauritania | 0.4 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 26.2 | 7.3 | 0.4 | 0.1 | 20.5 | 28.8 |
| Morocco | 0.3 | 1.2 | 0.5 | 0.5 | 0.3 | 0.5 | 29.2 | 15.9 | 7.2 | 0.3 | 33.3 | 13.2 |
| Oman | 8.5 | 10.6 | 0.2 | 0.2 | 0.9 | 2.6 | 14.8 | 1.2 | 1.5 | 2.7 | 28.8 | 24.2 |
| Palestine | | | | | | | | | | | | |
| Qatar | 4.1 | 3.9 | 0.1 | 0.1 | 0.3 | 0.8 | 0.1 | 5.8 | 11.4 | 5.2 | 21.9 | 21.8 |
| Saudi Arabia | 1.8 | 2.2 | 0.4 | 0.3 | 1.6 | 1.8 | 4.4 | 3.5 | 4.5 | 3.1 | 23.3 | 17.8 |
| Somalia | 27.6 | 23.6 | 0.0 | 0.0 | 4.9 | 1.7 | 3.4 | 0.2 | 0.0 | 0.0 | 4.2 | 35.7 |
| Sudan | 2.0 | 1.6 | 0.0 | 0.0 | 0.1 | 1.4 | 0.1 | 0.2 | 0.7 | 0.0 | 0.9 | 1.4 |
| Syrian Arab Republic | | | | | | | | | | | | |
| Tunisia | 0.6 | 0.3 | 3.1 | 3.2 | 0.3 | 0.3 | 4.6 | 26.0 | 4.1 | 0.1 | 6.2 | 11.2 |
| United Arab Emirates | 7.1 | 11.2 | 0.4 | 0.5 | 6.5 | 6.7 | 1.4 | 4.6 | 0.1 | 8.8 | 49.1 | 42.9 |
| Yemen | | | | | | | | | | | | |

**Sources:** Authors' calculations using the following databases: FDIs provided by the Arab Investment and Export Credit Guarantee Corporation (DHAMAN); exports from Comtrade, 2017 (last accessed October 10, 2017); and remittances from World Bank database (last accessed October 10, 2017).
**Note:** Data for Libya, State of Palestine, Syrian Arab Republic, and Yemen is not available.

Finally, the GCC bloc exhibits the strongest performance in terms of regional integration. Unlike the other blocs, GCC increased its engagement with most LDC and other Arab countries. For instance, GCC integration indicators with LDC and other Arab countries registers an increase of 1.7 per cent with Oman, 0.2 per cent with the United Arab Emirates, and 0.4 per cent with Qatar. Moreover, the ties between the GCC and the AMU only registered a negligible change in 2015 compared to 2014. However, GCC has reduced its integration with the EU, ASEAN and the rest of the world. The only exception from this general pattern are the United Arab Emirates, being the only diversified economy in the GCC. One consequence of stronger ties between the GCC and the rest of the Arab region in combination with weaker ties with other actors is that the Arab links may serve as a buffer against shocks from non-Arab sources.

## 1. Explaining integration performances

Factors determining a country's economic integration performance have been extensively studied. Typically, the level of development is measured by per capita GDP. As a result of gaps in poor and rich countries' production capacity for exports and the market size for imports, poor countries with low levels of GDP tend to trade less than richer ones. Larger countries are better able to exploit economies of scale and hence develop comparative advantages in their exports than smaller ones (Krugman, 1980; and Venables, 1987). As the economy expands, its domestic market grows, creating new opportunities to import goods from other countries. Population size refers to consumers and labour force in a given country and serves as an indicator of the country's import potential demand as well as production capacity. Comparisons of globalization rankings across countries with similar GDP indicate that many Arab countries have not yet fully exploited the potential of globalization (figure 7). Country comparisons have to be made reading the figures from the top to the bottom. Countries that are aligned vertically have similar GDP, the closest to the horizontal axis performing relatively better on the globalization ranking. Vietnam corresponding to ASEAN countries and Poland corresponding to the European bloc have been used as benchmarks.

Arab diversified countries other than Egypt and the Syrian Arab Republic come after Vietnam in terms of ranking relative to GDP size. Only two GCC countries lie between Vietnam and Poland, the rest of GCC countries follow Poland in ranking. Most LDCs and Mashreq countries come after Poland, with the Sudan ranked 148. Figure 7 also shows that, despite their high level of income, GCC did not pursue plans for integration, while Somalia, for instance, surpasses most GCC countries in terms of integration.

The analysis presented above shows that the performance of most Arab LDCs and conflict-ridden countries is below their potential. This conclusion is based on the criteria of their structural features and level of GDP per capita. Notably, some Arab countries have been exploiting their potential structural features as drivers of economic integration more effectively in general but much more can be done to fully benefit from the size of Arab countries' internal markets. The latter effect is a major socioeconomic underperformance that falls back on countries' capacity to catch up with countries with similar structural features and standards of living.

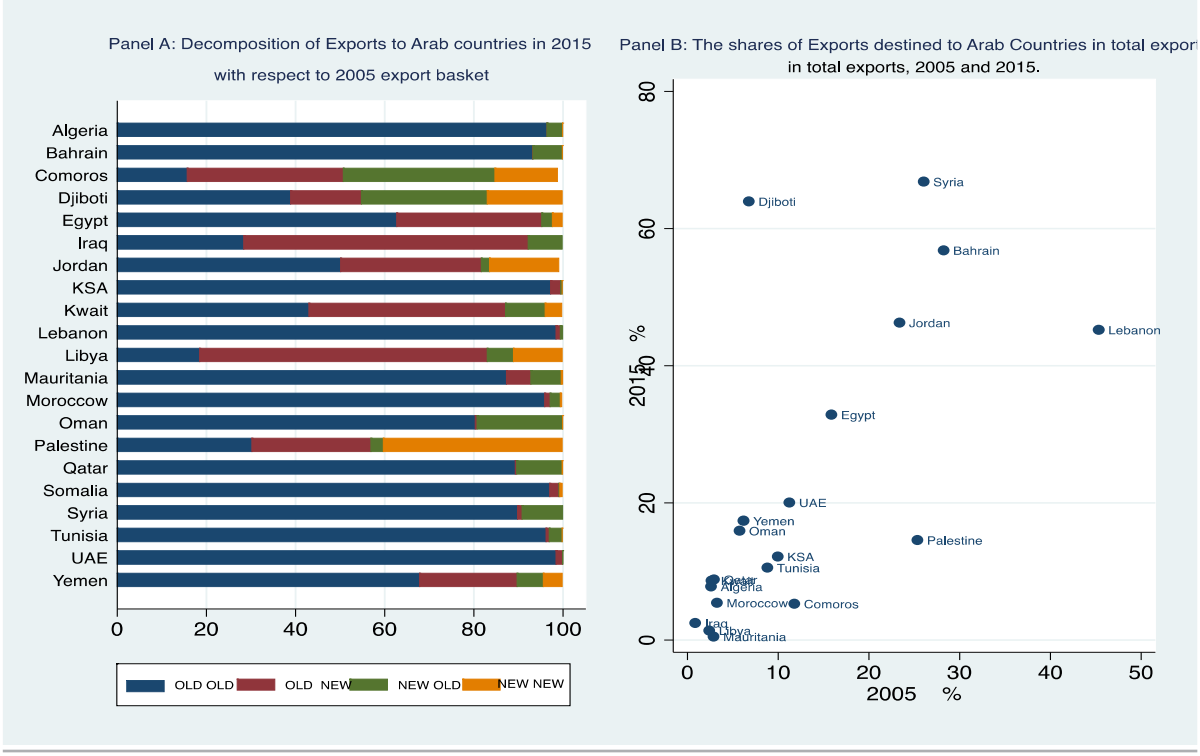
**Figure 7.** Economic integration performance and economic development in 2016


**Sources:** Authors' estimates using Comtrade, 2017 (last accessed October 25, 2017); UNCTAD, 2017 (last accessed on October 25, 2017); and World Bank database (last accessed on October 25, 2017).

## 2. Export performance: intensive and extensive margins

It is also of interest to see whether changes in the exports of Arab countries are driven mainly by new products and/or destinations (along the extensive margin) or old markets and products (intensive margin). This type of analysis provides insight into the vibrance of a country's export sector and the ability of the country to introduce new products into its export basket by developing new products and becoming competitive in those products.

## Figure 8. Evolution of extensive and intensive margins of Arab countries, 2005-2015




**Sources:** Authors' calculations using CEPII, 2016 (last accessed on October 25, 2017).
**Note:** In the classifications OLD OLD, OLD NEW, NEW OLD, and NEW NEW, the first term refers to the product and the second to the market destination.

The decomposition of the exports of Arab countries destined to the Arab region in 2015 with respect to their export baskets in 2000 and the change of bilateral trade volumes between 2005 and 2015 show a rather diverse performance of across Arab countries (figure 8). The share of AMU countries' exports destined for the Arab region remains marginal, with the exception of Algeria, which registered an increase of 5.2 percentage points in the share of exports to Arab countries, with Tunisia and Morocco having registered an increase of 1.7 and 2.2 percentage points, respectively. However, the latter increase has been achieved through intensive trade channels with only 2.9 per cent and 2.6 per cent through extensive trade in the case of Tunisia and Morocco, respectively. Libya and Mauritania have registered a decrease in the trade volume with the Arab region; however, these two countries have developed new products with either their current or with new Arab partners to register an increase in the extensive margin of 16.8 per cent and 7.1 per cent, respectively.

GCC countries have been on the lead in terms of strengthening integration ties with other Arab countries. All GCC countries registered an increase in trade share in 2015 relative to 2000. Although the latter increase is important and indicative in terms of integration, it has not been associated with an increase in the level of

diversification of new products or having access to new markets. In the meanwhile, except for Kuwait and Oman, the GCC countries' trade share with EU and ASEAN has been stagnant in the period under consideration compared to other Arab countries.

Other Arab countries (LDC and non-LDC) exhibit varying trade performance, with countries such as Djibouti, Egypt, Jordan, Somalia and the Syrian Arab Republic registered a drastic increase in trade share with Arab countries, whereas Comoros, Iraq, Lebanon, and the State of Palestine registered either a marginal increase or a decrease in trade share. Diversification-wise, Egypt was at the lead in finding new partners for its new trade share, while Comoros and Djibouti were best performers in expanding their line of traded goods. When it comes to the trade composition of Arab countries with other regional trade blocs such as EU, ASEAN and Sub-Sahara, all Arabs country groups except Djibouti and, to some extent, Somalia registered negligible changes in the trade shares stipulating that other Arab countries remain disintegrated from regional and international markets.

## 3. FDI inflows

Since the 1950s, high-performing countries that managed to grow at an average rate of 7 per cent for a long period of time are those that have successfully improved their productivity through regional integration, FDI, technological flows, and migration. The goal was not to push the technological frontier forward but to catch up with existing technologies and knowledge and capitalize on existing resources. From this perspective, FDI is a key vehicle to technological, managerial and organizational progress diffusion across the world. Moreover, FDI may further contribute to boost domestic investment, employment generation, economic growth and sustainable development. In fact, by creating spillover effects, FDI may lead to new or higher amounts of domestic investment where it would not be possible in the absence of FDI, which is known for having a "crowding in" effect. However, when FDI is accompanied by a loss of competitiveness of the domestic firms, increase in the level of interest or adverse knowledge spillovers, FDI carries a risk of crowding out for domestic investment (Acar, Eris and Tekce, 2012).

Thus, the relationship between FDI and domestic investment in the Arab region should be investigated case by case at country and sectoral levels. Overall, world FDI flows returned to the levels observed in 2008 after they fell in 2012-2013 to stabilize again in 2015. While FDI inflows to developing and emerging countries since 2008 have followed an upward trend, the Arab region has not kept up with this growth. In 2014, the share of the AMU in world FDI flows plunged to a record low of 0.54 per cent. Arab countries' share dropped after the 2008 crisis and bounced back, up by 1 percentage point in 2012. In terms of GDP, FDI inflows represented 1.8 per cent of Arab countries' GDP, whereas Europe and the Sub-Saharan region attracts 4.1 per cent and 2.6 per cent, respectively. These figures underline how far the Arab region is behind other comparable or even less developed ones, such as Sub-Saharan Africa, in attracting foreign capital (figure 9).

Moreover, the attractiveness of countries to FDI inflows is generally driven by structural elements such as size of and distance to a given market, absorptive capacity, and labour force quality. When deciding whether to export or invest abroad, firms also take into account a

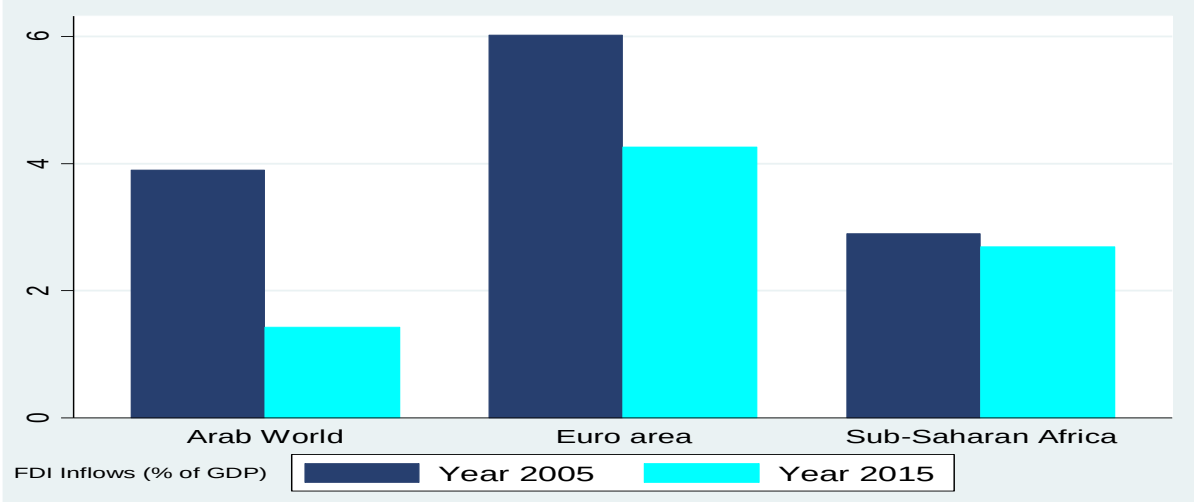
number of additional elements such as exchange rate volatility, distance to the foreign market and similarities in factor endowments. Moreover, cost considerations, influenced by wages and exchange rates, are of paramount importance in a world dominated by GVCs where FDI is increasingly 'vertical' as firms localize production in foreign countries to benefit from a specific comparative advantage. In recent years, FDI inflows have been increasingly connected to the rapid fragmentation of the production process and the formation of global networks, which promoted trade in part, and components that are referred to as intra-industry trade.

One of the crucial determinants of investor decisions to move production and invest abroad is the potential market size that the investment can serve. Investors take into account the size of the economies of the recipient country and its neighbours. A larger market reduces sunk costs and makes it possible to exploit economies of scale (Redding and Venables 2004; Altomonte 2007). Such an approach to investment decision is consistent with the emergence of integration strategies in Europe. The attractiveness of Eastern European countries was not primarily driven by the countries' upcoming access to the large EU-15 market or by the size of the local market but by the quality of the local productive fabric, which made it able to adapt to structural change and provide intermediate inputs that were demanded by the EU market. Other factors that come into play include the availability of skilled workers, the information network, and the prospects for local technological progress. Lefilleur and Maurel (2010) found that, if access to the EU market for intermediate goods or the local capacity to supply inputs to the EU improves by 10 per cent, foreign investment may increase by up to 2 per cent in core EU countries and by 1 per cent in countries with more peripheral links to the EU market. Lefilleur and Maurel (2010) also highlighted how Eastern European countries succeeded in drastically reducing uncertainty among investors via credible commitments to remove trade barriers with the EU, improve trade facilitation, reform customs administration, and have regulatory frameworks converge towards the EU or Community acquis.

These findings leave the impressions that Arab countries are missing out on many opportunities. The ability of Arab countries to attract FDI is undermined by only partial implementation of existing intra-Arab RTAs, a perceived lack of commitment to pursue intra-Arab economic integration, the absence of significant progress for the Euro-Mediterranean project, and geopolitical tensions.

Arab countries have yet to create an attractive economic environment relative to other regions. For example, Sekkat and Varoudakis (2004) compared the performance of East Asia, Latin America and Arab countries in terms of attracting FDI, showing that lower trade levels may explain the relatively poor performance of Arab countries. His study also stressed the deterrent influence of conflicts and political uncertainty as well as the effect of existing policy-induced barriers to FDI. These policy-induced barriers can vary from a very restrictive foreign exchange regime to infrastructure access. For instance, Wilson and Cacho's (2007) exploration of the food sector in Tunisia and three other African countries confirms these findings, most importantly that production costs remain comparatively high in the Arab region and that borders remains relatively thick.[4]

**Figure 9.** FDI inflows to various economic regions (Percentage of GDP)




**Source:** Authors' calculations using World Bank, 2017b (last accessed October 25, 2017).

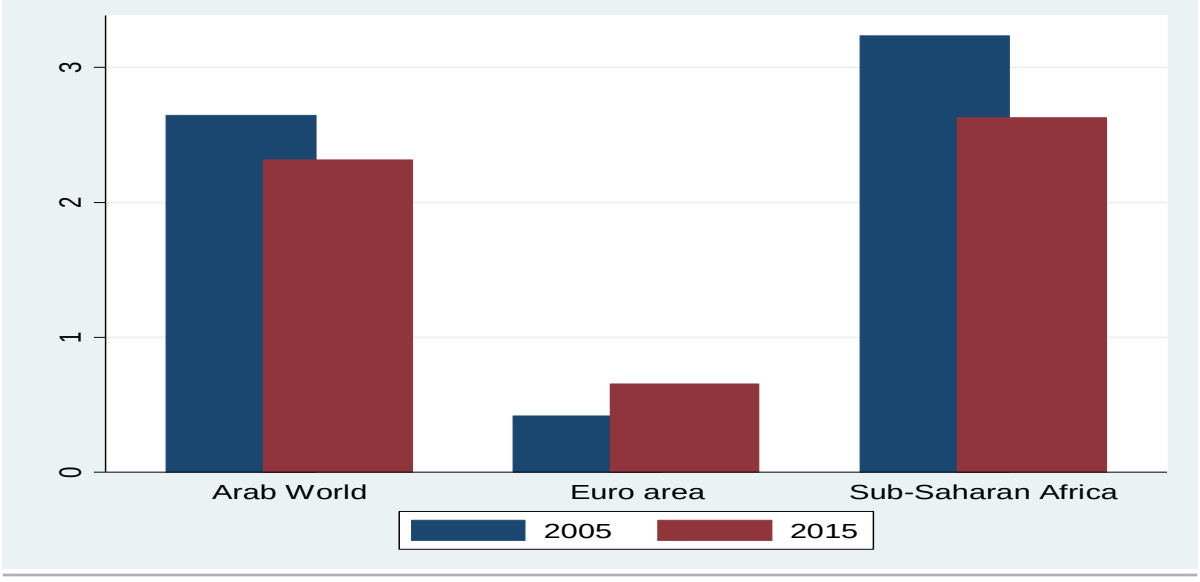
Trade policy has become an increasingly crucial determinant of FDI patterns, as illustrated by the case of EU and the North American Free Trade Agreement (NAFTA), where firms exploit preferential tariffs granted by host countries. Measures that reduce distance to other countries contribute to attractiveness of a country to FDI inflows.

Transparency and accessibility of information related to FDI regulations and the business environment is another important factor. Hanafy (2015) investigated the case of Egypt to find that language and cultural differences influence the attractiveness of a country to FDI. The role of transparency was also stressed by the work of Khoury, Wagner and Kepler (2010), in which they documented that, for Arab oil-producing countries, corruption and limited credibility of commitments to implement programmes for economic diversification had a negative impact on FDI inflows.

## 4. Migration and remittances

Remittances to the Arab region suffered as a result of low oil prices and weak economic growth in major countries, which happen to be the origin of a large chunk of remittances destined to the region (figure 11). In 2015, the situation had further deteriorated due to poor economic outlook and prospects in major sending countries, coupled with the appreciation of the US dollar, in particular against the Russian ruble and the Euro, caused a dent in the value of the amounts sent back home. Between mid-2014 and mid-2015, the Euro lost 16 per cent of its value against the US dollar, which reduced remittances to the Arab region by 0.9 per cent in the last estimations of the World Bank (Ratha, Eigen-Zucchi and Plaza, 2016). Compared to the ASEAN region, the Arab region is losing grounds in terms of the amount received. However, in terms of per cent of GDP, the Arab region is ahead of Europe but falls behind Sub-Saharan Africa (figure 10).

**Figure 10.** Remittances inflows to Europe, Sub-Saharan Africa and Arab region (Percentage of GDP), 2005 and 2015

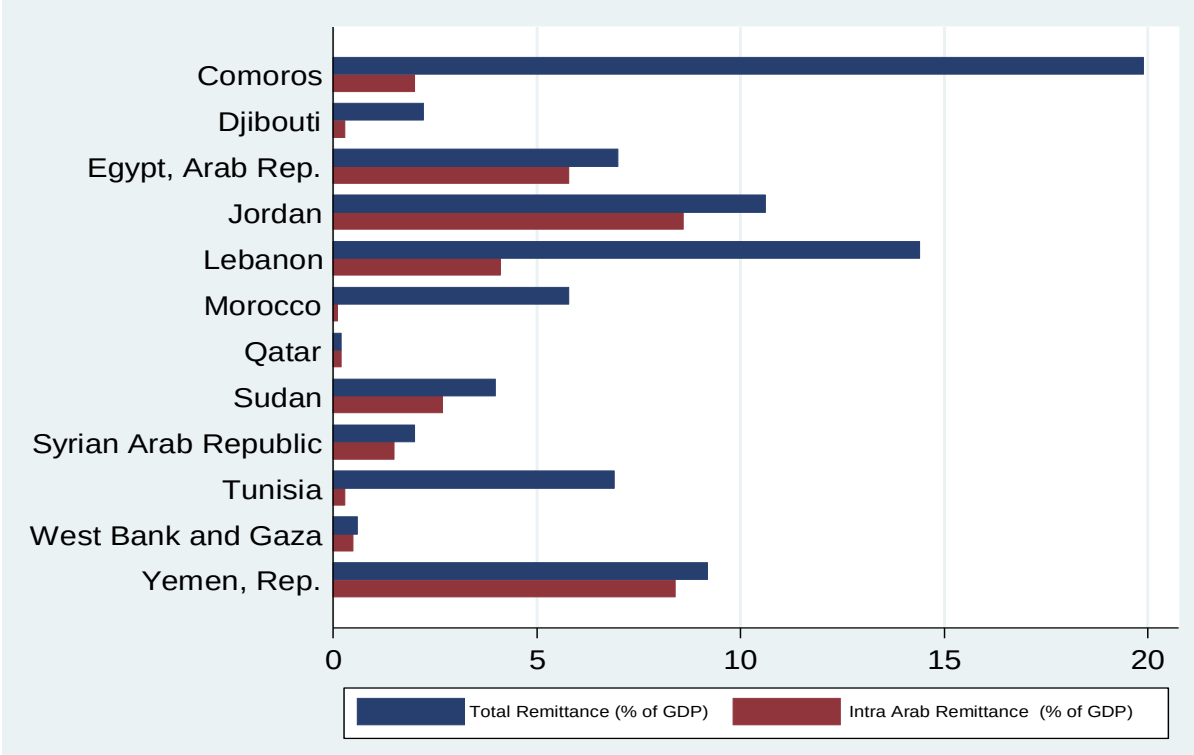



**Source:** Authors' calculations using World Bank, 2017b (accessed October 25, 2017).

While, remittances are a relatively stable source of financing, the degree of dependence of some Arab countries as a source of income and foreign exchange is worrisome. Such countries include Egypt, Jordan, Lebanon, State of Palestine, and Yemen. The situation is particularly stark in the case of Egypt, which had to devalue its currency after its reserves reached a critical level in response to waves of speculative attacks on currency (from $36 billion in January 2011 to $16 billion in September 2015). However, this should not be considered an argument against remittances per se but against a lack of diversification and against relying on volatile sources of foreign exchange earnings, such as tourism. Between 2006 and 2010, Egypt managed to keep the US dollar exchange rate at around 5.75 pounds to dollar thanks to tourism, remittances and revenues from the Suez Canal.

GCC countries provide a large share of intra-Arab remittances for many Arab oil-importing (labour-rich) countries (figure 11). These countries, chiefly Egypt, Jordan and Yemen, and to a lesser extent Lebanon, are indirectly negatively affected by shocks that have a negative impact on the GCC economies. According to World Bank data, the shares of remittance inflows that come from GCC countries are 70 per cent for Egypt and Jordan, 87 per cent for Yemen, 65 per cent for the Sudan, 37 per cent for the Syrian Arab Republic, and around 25 per cent for Lebanon. Saudi Arabia and the United Arab Emirates are the main source of intra-Arab remittances. The shares of Kuwait and Qatar are lower but particularly significant for Egypt and Jordan. Tunisia and Morocco have a similarly high degree of dependency on remittances from the EU while depending much less on the GCC.

**Figure 11.** Sources of remittances to the Arab region: intra-Arab versus rest of the world




**Source:** Authors' calculations using World Bank, 2017b (last accessed on October 25, 2017).

## D. Summary and conclusions

China and Asia are likely to remain the driving forces behind world growth and integration in the medium run at the same time as the EU and other emerging economies may continue to play important roles. Opportunities for economic growth and further economic integration are likely to be shaped by developments in Asia, especially the rebalancing of the Chinese economy. The prospects of growth in developed countries are likely to remain subdued, influenced negatively by political uncertainty in Europe and the United States (World Bank, 2017a).

In the medium run, it is also likely that lower oil and commodity prices, combined with higher purchasing power and demand in China, will have positive economic spinoffs in the Arab region. In particular, oil-exporting countries will have the opportunity to increase their oil export revenues to China as its consumption rises. The region would also be able to expand its consumption-oriented exports of goods and services, notably tourism, and agricultural products. In the prospective horizon years, Asia should be consuming more high-tech products and services. However, the Arab region would be able to capture part of this demand by capitalizing on its intra-Arab complementarities

and comparative advantages. In the long run, the positive spillovers might be further amplified, in the form of greater intra-Arab integration and economic growth if an integrated ASEAN, China and India region emerges.

EU recovery after the Greek debt crisis and other austerity measures in Spain, Italy and Portugal would boost EU demand for foreign goods. This would be an opportunity for AMU countries that are highly integrated with the EU bloc. GCC countries may pursue more transparent and growth promoting policies to attract more FDI for sustainable growth and development. Diversified Arab countries would also benefit from high growth rates of the ASEAN+3countries and GCC countries by exporting to these countries and serve as a hub for the capital from the GCC countries.

The capacity of Arab countries to adapt to this new environment and grab the opportunities depends on differences in trade costs, logistics and infrastructure quality, resource availability, innovation capacity, and, finally, legal and economic legislations oriented at attracting FDIs. Finally, the need to strengthen Arab countries' capacity to produce high-tech goods and to lower trade costs, to attract FDI, and to improve the inflows of skilled labour through migration as part of a structural transformation agenda for the region is also examined.

The above analysis of the inter- and intraregional economic relations of Arab countries substantiated the great variation within the region with Oman, State of Palestine, Somalia or the Syrian Arab Republic trading significantly within the Arab region. While intraregional integration would have improved the Arab region's resilience to a foreign crisis contagion, intra-Arab imports and exports remain marginal and are less dynamic, growing at a slower pace than trade with other regions.

The remarkable change observed over the last decade was the exponential deepening and strengthening of GCC economic ties with China and the ASEAN+3, making GCC countries highly vulnerable to shocks emanating from Far East Asia. Little evidence was found that Arab countries, in parallel, have attempted to develop their regional ties, and/or fully exploited the potential of economic growth and integration of their domestic markets with a view to shield themselves from foreign shocks. On the contrary, non-GCC Arab countries seem to be following the path of the GCC by centering their integration efforts on Asia and, thus, promoting the risks of crisis contagion for the whole Arab region. These findings also imply that, when it comes to alternative sources of economic growth in the context of a global trade, there is an untapped potential for inward-oriented economic growth for Arab countries. Fostering intra-Arab and international economic integration in the medium run protects the economies from the impact of foreign idiosyncratic shocks. However, it would also increase exposure to regional economic shocks, fed by conflicts within and between countries. Yet, there still is a chance to develop more diversified economic links with the Arab region, especially if Arab countries manage to set up institutional mechanisms that ensure implementation of agreements. This situation is particularly true for the largest and/or wealthiest economies of the region: Algeria, Egypt and Saudi Arabia would also bring a sizable growth dividend for the whole Arab region and contribute to the emergence of a vibrant intra-Arab regional market.

Over the period 2013-2016, a number of shocks hit the world economy to undermine Arab countries' trade and economic activities. In the meantime, Arab countries have not been able to fully exploit the potential of their structural features as individual countries or as a region. The economic difficulties of the GCC, including a decline in outflows of worker remittances, has hurt economic growth and stability in other Arab countries, in the process jeopardizing the sustainability of fixed exchange rates arrangements in some Arab countries. In this context, intra-Arab integration could boost income growth in the Arab region that would, in turn, improve specialization and cost reduction. Also, liberalizing services sectors in the Arab region could greatly enhance structural change.

In 2017 and 2018, FDI should recover. However, several crucial indicators must be carefully monitored in the short run. To begin with, the evolution of oil and other commodity prices and their impact on the business cycle are of paramount importance for Arab economies. The rebalancing and opening-up strategy in China is indeed associated with large uncertainties and poses considerable threats to Arab economies.

Finally, the ongoing conflict in the Syrian Arab Republic and the repercussions of the 'Arab spring' pose challenges for the Arab region especially for FDI inflows, which may be particularly vulnerable to political instability and economic turmoil. Given the challenges, a long road is ahead of Arab countries. If they are to embark on transforming their economies, regional economic integration is believed to be a major option to follow. The fiscal systems of oil-exporting countries must be designed to make their economies more immune to oil- and other commodity- price shocks, in the process reducing the remittance shocks to which peripheral countries are exposed. In this context, bilateral and/or intraregional integration can alleviate the impact of oil-price shocks and serve as a cushion against the contagion of other shocks that originate outside the region.

# 2. The Economics of Services Trade

# 2. The Economics of Services Trade

### The services sector as an engine of economic activity and integration

The term services sector encapsulates a wide range of economic activities, ranging from hairdressers to engineering consulting, transportation, healthcare, and education, to name a few. The services sector constitutes a fundamental component of an economy and accounts for significant shares of output, employment and FDI flows. In addition, the services sector has strong linkages to non-service activities. Throughout the economy, a dynamic, efficient and competitive services sector is of great importance for employment and income generation, and ultimately for high and sustainable economic growth.

### Services drive economic activity and productivity

Services make up a high and increasing share of economic activity in most economies around the world. The trend of a marked shift toward services holds across different regions and income groups. For countries that industrialized early, it started as early as in the late 19th century (Broadberry and Ghosal, 2005). Both final and intermediate demand factors contribute to the secular trend of a rising role for services in modern economies. Services make up an increasing share of final consumption as income rises. In a seminal paper, Baumol (1967) attempted to formally model the unbalanced growth of macroeconomic sectors. An implication of the model is that, due to the technology and mode of delivery for many services (such as haircuts), it is difficult to realize productivity growth that is as rapid as for other sectors (namely in agriculture and industry), relying on means such as capital accumulation, innovation or economies of scale. As a result, the relative prices of services increase and the sector absorbs growing shares of economic resources.

There have been empirical investigations on the price and income elasticities of demand for services. Examples include Summers (1985), who provides a disaggregated analysis of services sector using International Comparison Programme (ICP) prices. He also estimated the income elasticity of total real services to be unitary, contradicting studies predicting above unity elasticities and hence increasing services shares with income. The latter group is exemplified by Falvey and Gemmell (1991), who find that service income elasticities in aggregate tend to be greater than unity, but rather close to unity. Falvey and Gemmell (1996) re-estimate the income and price elasticities of demand for services, adopting improved methodologies and using an updated dataset based on purchasing power parity (PPP) exchange rate. They conclude that, for total services, there is no evidence that services are income elastic but, at a more disaggregated level, income elasticity estimates vary across different services, with above and below unity income elasticity estimates.[5]

## Services are an integral part of economic activity

The services sector is important not only in its own right, but also due to the fact that services are used as intermediate inputs by other sectors and facilitate transactions through space and time. For instance, business services play a large role in the production of most other goods and services. Services such as design, advertising, transportation, and retail trade play similarly indispensable roles.

Some services, notably education, research and development and health services, directly contribute to the accumulation of human and physical capital and, thus, to factor productivity in general. In these respects, the availability of high-quality and efficient services is an important determinant of output and productivity.

Transport, information and communications technologies, and financial services play a crucial role in the exchange of goods and services. Recent technological progress in such services in fact coincides with greater scope for the disintegration of production processes and greater roles for intermediate services, underlining the link between the services sector and integration into international production networks.

Also, manufacturing firms increasingly use and even produce, sell and export services. This phenomenon is referred to as the servicification of manufacturing (Lodefalk 2013, 2014 and 2015). The services sector and GVC integration are increasingly interdependent. The services sector relies increasingly on domestic and imported manufactured outputs and the servicification of manufacturing is an important phenomenon. Restricting access to high-quality, competitively priced imported intermediate goods not only undermines the downstream manufacturing sector but also the services sector that uses these inputs. As such, manufacturing exporters have a stake in open and more competitive services markets, and services suppliers have a stake in trade liberalization as they directly or indirectly bear part of the costs associated with barriers to goods trade.

Correspondingly, services influence aggregate economic activity and productivity through a multitude of channels. A diverse and competitive services sector is particularly important for the productive efficiency of manufacturing and agriculture sectors. There is much scope for gains in services sector performance and efficiency to translate into total output and productivity growth. Evidence suggests that productivity growth in certain services sectors indeed drives aggregate productivity and growth (Triplett and Bosworth, 2004).

Inklaar, Timmer and van Ark (2007 and 2008) find that differences in aggregate productivity levels across seven countries of the Organization for Economic Cooperation and Development (OECD) are driven mainly by services sector performance while both productivity levels and growth rates are largely similar in manufacturing. Decomposing productivity by industry, they reveal that the performance of business services drives differences across countries in the services sector as a whole.

The availability of diverse and efficient business services is deemed to be a key determinant of economic growth performance. Producer services, such as managerial and engineering

consulting, may help domestic firms lower their costs. In particular, intermediate services, which tend to be non-traded or traded at prohibitive costs, are a potential driving force behind the agglomeration of economic activity and differences in economic performance across regions. FDI is a major channel through which foreign services are made available domestically. Markusen, Rutherford and Tarr (2000) develop a model of services, taking into account policies that may have an impact on FDI. They conclude that: (a) removing or reducing barriers to FDI inflows significantly boosts the income and welfare of the recipient country; (b) adopting policies geared towards protecting domestic skilled workers may have the opposite effect of lowering their wages by reducing the demand for their services; without such measures, productivity gains and benefits from economies of scale in downstream industries may dominate, and the real wages of domestic skilled workers can rise; (c) the variety of services imported increase and total factor productivity in downstream industries see an increase as a result. They also argue that protecting the domestic services sector has different implications for economic agents. For instance, domestic capital owners could be adversely affected, whereas domestic skilled workers and downstream industries that heavily use business services could benefit substantially.

The services sector is an important determinant of FDI flows. Considering the fact that the cross-border tradability of certain services is limited, access to best practices and new services crucially depends on FDI inflows. In fact, FDI is identified as the most important channel through which services can become traded. Based on available estimates, OECD (2011) suggests that around half of services trade takes place via commercial presence. In this regard, liberalizing barriers to FDI in services sectors represents the main channel through which foreign services are made available to a national economy.

Fernandes and Paunov (2012) empirically investigates the impact of FDI in producer services on the total factor productivity (TFP) of Chilean manufacturing firms. They find that such FDI has a positive impact on the TFP of the manufacturing firms that use producer services, and on innovation activities in manufacturing. They also suggest that laggard firms will have access to services that will allow them to catch up with industry leaders, owing to FDI in services.

### Services-based integration could offer opportunities for deeper regional integration

Some important services facilitate networking; prominent examples are telecommunications, energy and transport (maritime, rail, air and road). An important aspect of network services is that they lend themselves to network externalities and economies of scale. As a result, these industries give rise to natural monopolies (Economides, 2004). An important implication of this feature is that investing in and managing network industries in a regional setting may yield substantial gains. For instance, issuing licenses that are region-wide rather than country-specific could pool markets, and the resulting large markets could attract global players.

Nevertheless, a regional approach to services and investment is often complicated. The providers of most services, which are amenable to a more regionally integrated approach, are

either public monopolies or firms with concessions. In this regard, intraregional services liberalization initiatives may require major privatizations and regulatory reforms of services. Ensuring competition in regional markets may entail further steps such as the creation of a common regional competition authority. Priority sectors for liberalization could be determined by the common interests of the countries involved, as well as the balance of national benefits and adjustment costs. The EU, for example, initially focused on those services where liberalization could reduce production costs, thereby promoting trade in goods. Those services sectors included telecommunications, transport (land, air and maritime) and financial services. Only later, intra-EU liberalization efforts targeted electricity, natural gas, e-commerce, railways and postal services in the late 1990s (Hoekman and Sekkat, 2010).

### Services trade liberalization and potential benefits

The contribution of the services sector to economic activity and its share in international trade are disproportionate in spite of recent relatively rapid growth for services trade compared to goods. For instance, the services sector makes up around two-thirds of GDP in the G-20 at the same time as value of services trade is only a quarter of the value of goods trade (WTO, 2009). Miroudot, Sauvage and Shepherd (2013) argue that this largely stems from prohibitive costs firms face in trading services internationally rather than non-tradability of a wide range of services. The stylized fact that some services are traded internationally only in small quantities does not reflect that they are non-tradable but rather they can be traded profitably in few cases. The full range of costs that firms face when trading services mainly relate to distortionary regulatory measures that create entry barriers or that increase the costs of firms, as well as costs associated with institutional, cultural and geographical differences. The part of trading costs that are due to distortionary policies lead to a misallocation of service production across countries and a loss in economic efficiency.

Regulatory measures may introduce major gaps between the costs of goods with and without trade costs. Barriers to trade in services are, for the most part, embedded in behind-the-border, domestic measures of a regulatory nature. The regulation of services is, therefore, directly linked to investment and competition policy, and the movement of workers and capital. A deep and comprehensive approach is needed to address these issues as part of a services-based regional integration strategy or in the context of unilateral or multilateral services trade liberalization.

Barriers to services trade, whether in the form of restrictions on cross-border flows of services or the entry of foreign services providers, are likely to weigh on efficiency gains in domestic services markets by limiting contestability and competitive pressures. In addition, downstream sectors that use services as inputs are adversely affected by higher input costs if domestic services providers are insulated from competition. Lifting unduly restrictive barriers to services trade could help ensure access of firms all throughout an economy to cost-effective, high-quality and reliable services, improving their competitiveness.

The benefits of liberalizing trade in services are not limited to the services sector itself. Services sector reforms could provide a substantial impetus to the rest of the economy, notably the manufacturing sector. In fact, services and

manufacturing sectors are interdependent. On the one hand, the services sector has come to increasingly rely on inputs from domestic and imported manufacturing. Restricting access to high-quality, competitively priced imported intermediate goods not only undermines the downstream manufacturing sector but also the services sectors that use these inputs. On the other hand, services are of growing importance as inputs to production in agriculture and industry. This importance is particularly evident for manufacturing where, given the scope to fragment the production process, the availability and quality of cost-efficient services is a determining factor for competitiveness. As such, manufacturing exporters have a stake in open and more competitive services markets while services suppliers have a stake in trade liberalization as they directly or indirectly bear part of the costs associated with barriers to goods trade.

There are complementarities between trade in services and goods. These complementarities materialize through several mechanisms (WTO, 2012). First, transport, logistics and some financial services are direct inputs to goods trade. If there are restrictions to trade in such services, insulating domestic firms from competition and hampering access to international best practices, trade in goods performance is adversely affected. For instance, greater market power in the maritime shipping industry is associated with higher trade costs (Hummels, Lugovskyy and Skiba, 2009). Second, goods and services are increasingly bundled. The examples of this trend include after-sale services for durable goods, lease contracts of equipment with services, and some goods that mainly serve the role of being platforms for offering services. There is evidence that manufacturing firms are more and more involved in trading services (Lodefalk, 2010; Breinlich and Criscuolo, 2011). Third, some services, like retail and wholesale trade, are directly linked to merchandise trade.

### Evidence on the benefits of services trade liberalization

Studies that investigate the economic impact of services trade barriers aim at providing insight on as to how and through which mechanisms services trade measures affect overall economic performance, aggregate welfare, and the more disaggregated performance across different sectors of an economy. It should be noted that, regardless of the approach, quantifying the impact of liberalizing services trade depends crucially on adequately quantifying restrictions on services trade. An accurate assessment of services trade restrictions involves identifying not only cross-border measures but also, more importantly, behind-the-border regulations. Commonly encountered measures hampering competition include restrictions on the entry and operations of foreign services providers, licensing practices that discriminate against foreign investors, and lack of recognition of qualifications earned abroad. In this regard, the identification and measurement of barriers to trade entail a detailed assessment of a country's domestic laws and regulations. Such issues are discussed in more detail in chapter 3.

The impact of services trade liberalization should be seen as context-specific, depending on such factors as the size and nature of initial barriers to trade in services and the structure of the economy in question. Model-based simulations in which initial barriers are removed may be used to get a sense of the extent to which differences in the performance of the services sector is due to such barriers. All else

being equal, countries with more restrictive services trade measures stand to gain more from services trade liberalization.

## Ex-ante assessments

Ex-ante assessments of the economic impact of services trade barriers is typically carried out by simulating calibrated applied models, which may be classified into partial and general equilibrium models. Theoretically, they tend to be based on neoclassical economics, adapted to capture the key features of the modelled economy, including different policy interventions. They strive to capture interactions among producers, consumers and governments in settings with multiple sectors and production factors. Their simulations of policy changes, including actions like services trade liberalization, they capture the impact on a wide range of variables of interest, including consumption, investment, exports, imports, prices, wages, productivity, employment, GDP, and welfare.[6] Partial equilibrium models, however, are built to analyse single or groups of related sectors; such models may be appropriate when the impact of the policy change on the broader economy is limited.

The efforts of the Australian Productivity Commission (APC) in building general equilibrium models and using them to analyse the sectoral, regional, and global impacts of liberalizing services are notable. Petri (1997) broke new ground in the literature by explicitly modelling FDI in services, even though he did not consider the other modes of services delivery. Subsequently, the APC has built and used the foreign direct investment and trade analysis project(FTAP) model extensively. FTAP incorporates the explicit modelling of the behaviour of firms investing abroad and bilateral stocks of FDI in the database. FTAP additionally features increasing returns to scale and large-group monopolistic competition in all sectors, as well as allowing for capital accumulation and international borrowing and lending, using a treatment of international capital mobility. In so doing, the FTAP model permits accounting for two of the four modes of service delivery in the GATS agreement: commercial presence and cross-border supply. The FTAP model initially covered three sectors (primary, manufacturing and services) and 19 economies.

Dee and Hanslow (2000) used the FTAP model to analyse the global and distributional impacts of liberalizing trade in all services. They distinguish barriers to commercial presence from those applying to the other modes of supply and non-discriminatory barriers to market access from discriminatory ones. These barriers are also modelled as tax equivalent, which generate rents, rather than cost rising. The rents accrue to the selling region in the case of products and to the region of ownership in the case of capital, while income tax is applied to the revenue from capital.

To make detailed sectoral analysis possible, Verikios and Zhang (2001) modified the original FTAP model by extending it to eight sectors, including the two main sectors of interest: telecommunications and financial sectors.[7] In this analysis, the authors used the FTAP2 model to quantify the effects of liberalizing telecommunications and financial services.

Brown and Stern (2000), building on Dee and Hanslow (2000) and Petri (1997), model services trade liberalization as a cut in average fixed costs. The proxy for the size of services trade barriers is based on financial data on gross

operating margins by country and sector, as suggested by Hoekman (2000). Their approach yields far more pronounced welfare gains from services trade liberalization by allowing gains from capital reallocation to be captured.

Markusen, Rutherford and Tarr (2000 and 2005) focus on the liberalization of producer services and find that it does not only markedly boost the income and welfare of the liberalizing country but also the productivity in downstream industries. They also point out that foreign producer services are general-equilibrium complements to domestic skilled labour, as opposed to substitutes in a partial-equilibrium setting. In this regard, greater availability and access to foreign professional services may foster skill accumulation. The liberalization of trade in services leads to higher real wages for the skilled.

Balistreri, Rutherford and Tarr (2009) employ a 55-sector small open economy CGE model of the Kenyan economy to assess the impact of the lifting of regulatory barriers against foreign and domestic business service providers. Using a Dixit-Stiglitz framework, the model endogenizes FDI in business services and productivity effects in imperfectly competitive goods and services markets endogenously. Their results indicate that Kenya could realize very substantial gains from regulatory liberalization in business services, as well as additional gains from import tariff unification. The estimated gains increase to 50 per cent of consumption in the long-run steady-state model, where the impact on the accumulation of capital from an improvement in the productivity of capital is taken into account. Decomposition exercises reveal that the largest gains to Kenya would stem from the removal of costly regulatory barriers that are non-discriminatory in their impacts between Kenyan and multinational service providers.

### Ex-post assessments

One strand of the literature aims at quantifying the impact of services sector measures on sectoral or economy-wide performance using past liberalization and deregulation episodes. As opposed to the CGE approach, which relies on structural models of how barriers in one sector work through other sectors and eventually the economy as whole, econometric studies typically take a reduced-form approach. Performance measures of interest can be either in level or growth terms. This line of approach typically relies on cross-country and panel data evidence using econometric techniques. In particular, by taking advantage of cross-country and time variation in a quantity of interest, such studies try to isolate the impact of specific policy changes related to regulation and competition. Time series techniques can potentially be employed when a particular services trade barrier is introduced at a particular time and the data covers the period before and after the implementation of a measure. More involved techniques such as vector-autoregressive (VAR) models are used to assess non-tariff barriers to trade in goods. For instance, Babula, Newman and Rogowsky (2006) take this approach to estimate the effects of a United States quota imposed on imports of Canadian wheat during 1994-1995. Their model includes not only the price and quantity of wheat consumed, produced and stocked in the United States, but also the wholesale prices of some products that use wheat as a primary input, including wheat flour, mixes, dough, wheat-based breakfast cereals, cookies, and crackers.

In most econometric assessments, the empirical strategy exploits the specific timing and differences in the degree of liberalization across countries and industries to identify the effect of services trade policies on the performance measure of interest. Conceivably, possible endogeneity issues need to be dealt with. Alternatively, some studies look for clean natural experiments of trade liberalization coming from external factors, with data available before and after trade reforms.

A number of studies empirically explore the impact of services trade liberalization using an econometric approach. Mattoo, Rathindran and Subramanian (2006), for instance, illustrate the construction of policy-based openness, as opposed to outcome-based measures, in two key services sectors, the financial and telecommunications sectors. They go on to estimate the output growth effects from liberalizing these two sectors in the context of cross-country growth regressions. Their estimates suggest that growth rates in countries with fully open basic telecommunications and financial services sectors are up to 1.5 percentage points higher than those in other countries; their evidence of such a positive growth effect is relatively strong for the financial sector but weaker, although still statistically significant, for the telecommunications sector.

In the same vein, Eschenbach and Hoekman (2006) find that measures of services policy reform are statistically significant explanatory variables for the post-1990 economic performance of transition economies, controlling for regressors commonly used in the growth literature. In order to identify the growth effects of services policy reforms, they take advantage of large differences across transition economies with respect to services intensity and services policy reforms. They also note that reforms in policies toward financial and infrastructure services, including telecommunications, power, and transport, are highly correlated with inward FDI.

In another study focusing on the Eastern European transition economies, Fernandes (2009) looks into the performance of the services sector over the period 1997-2004. Although the performance of services sectors varies greatly across sub-sectors and countries, ICT services producers and users, and firms that are intensive in their employment of high-skilled labour tend to register higher labour productivity growth. Services trade liberalization has a significant positive impact on the labour productivity levels and growth of downstream manufacturing and services sectors, with stronger effects in subsectors that are farther away from the technological frontier.

Studies using firm-level data also provide evidence on the impact of services trade liberalization. Based on firm-level data from the Czech Republic, a number of studies examine the link between services sector reforms and the productivity of manufacturing industries relying on services inputs. Several aspects of services liberalization are considered – the presence of foreign providers, privatization and the level of competition. The results show a positive relationship between services sector reform and the performance of domestic firms in downstream manufacturing sectors. Allowing foreign entry into services industries appears to be the key channel through which services liberalization contributes to improved performance of manufacturing sectors. This finding is supported by evidence that foreign acquisitions of Czech services providers result in profound changes in the labour productivity and sales of acquired firms.

### Box 2. The Trade in Value-added database

Driven by technological progress, cost, access to resources and markets, trade policy reforms, and indeed emerging economies, production has in recent decades been fragmented and is now often split over several countries. This has challenged conventional wisdom on how to measure trade. Traditional measures record gross flows of goods and services every time they cross borders, leading to 'multiple' counting of trade, which may lead to misguided policy measures in a wide range of areas.

To respond to this challenge, the Organization for Economic Cooperation and Development (OECD) and the World Trade Organization (WTO) in 2012 undertook to collaborate on the development of estimates of trade in value-added (TiVA) via the construction of a global input-output table. A first preliminary TiVA database was released in 2013 and the most recent update is from 2016. Its latest version covers 63 countries, including the members of the OECD, EU-28, and the G-20, as well as most East and South-East Asian countries, and a selection of South American countries. Three countries from the Arab region are included in the database: Morocco, Saudi Arabia and Tunisia. The indicators are provided for 34 sectors, including 16 in manufacturing and 14 in services (the rest in agriculture, mining, energy and utilities, and construction).

The TiVA database very broadly provides information on the value-added content of gross exports by the exporting sector. Services are featured prominently in TiVA by including an indicator on the services content of gross exports by exporting industry, and by type of service and origin of value added. Consistent with the motivation behind the developing TiVA, indicators capturing participation in GVCs via intermediate imports embodied in exports (backward linkages) and domestic value added in partners' exports (forward linkages) are also constructed.

Using panel data for about 4,000 Indian firms for the period 1993-2005, Arnold et al. (2016) examine the links between India's policy reforms in services and the productivity of its manufacturing firms. Firm-level evidence suggests that reforms in banking, telecommunications, insurance, and transport all had significant positive effects on the productivity of manufacturing firms, with a stronger effect on foreign-owned firms.

## A. Services trade and trade in goods: evidence from the TiVA database

### 1. Trade statistics and new initiatives

Trade and production patterns in the world are increasingly governed by GVCs. Their emergence and spread are an important driver of increased efficiency and competitiveness by allowing firms to reap the benefits of greater fragmentation of international production. Although GVCs are often coordinated by multinational enterprises (MNEs), which dominate the cross-border trade of intermediate and final goods, domestic suppliers, notably small and medium-sized enterprises, play a growing role in the production of goods and services that ultimately reach foreign consumers. As greater shares of income are generated through GVC integration in domestic economies, greater shares of total employment are sustained by such activity around the world.

The TiVA database of the OECD, developed jointly with WTO, allows a more accurate and detailed picture of the integration of countries into global and regional production networks by providing estimates of trade flows in value-added terms. As opposed to trade flows in gross terms, trade in value added better captures

the role of international trade in income and output creation in a world in which products and components cross borders multiple times and the activities of firms take place in more and more specialized domains, including at the business function or even task level.

## 2. Evolution of services trade

It is of interest to see how services contributed to exports in gross and value-added terms in selected developed, developing and Arab countries. In so doing, the role of services is highlighted vis-à-vis other sectors in this section. Regardless of the level of development and geographical location, merchandise and services trade in value terms surged until the onset of the global financial crisis and appear to have recovered in the aftermath of the crisis. Nevertheless, more detailed analysis presented in what follows could lead to a better understanding of the contribution of the services sector.

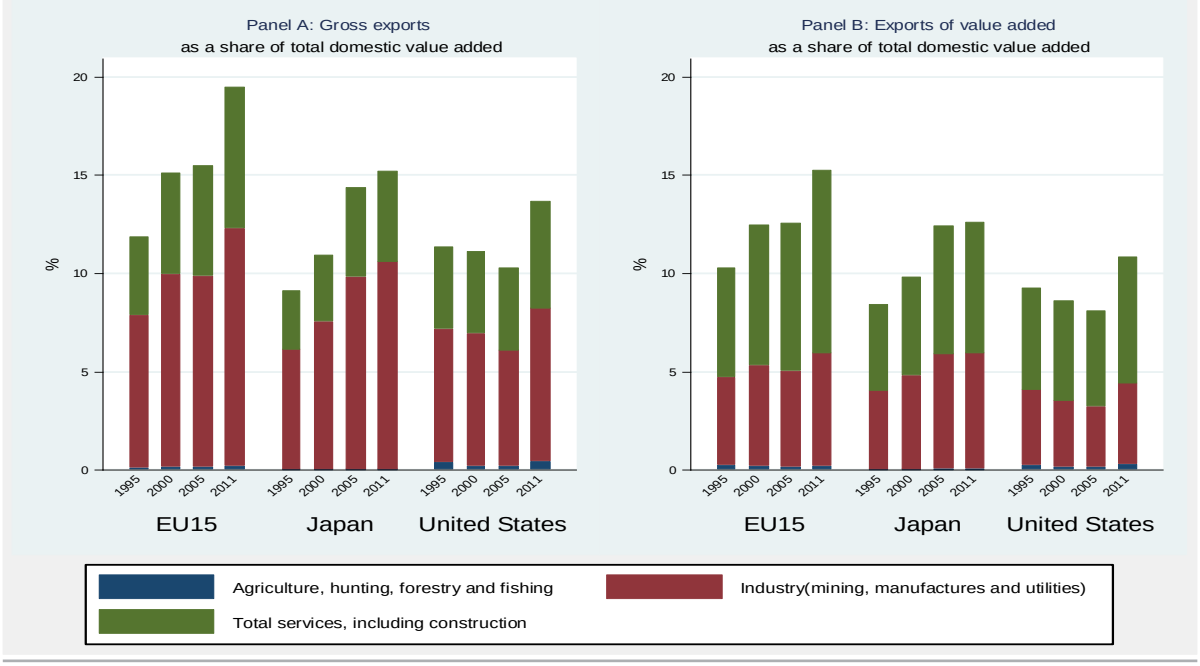
### (a) Developed economies

For the most part, developed economies have seen a marked increase in the share of total exports in total domestic value added (figure 12, panel A) The share of services in their total gross exports has seen a relatively steady, albeit limited, increase between 1995 and 2011. EU-15 countries have a higher services share in total exports than Japan or the United States, and they have recorded higher shares of total exports in total domestic value added. The gains in the case of the EU-15 have come primarily from the services sector, as well as industry. Japan, however, has witnessed a more discernible and steady increase in the share of industry, though the share of trade in services showed marked increases in 2005 and 2011, compared to 2000. In the case of the United States, following a slight retrenchment, the share of total exports in total domestic value added bounced back between 2005 and 2011. The increase appears to come from both the increase in the services sector and industry shares.

When trade is measured in value added as opposed to gross terms, the importance of services and the full extent of the services contribution to international trade become more apparent (figure 12, panel B). The exports of value added in EU-15 countries and Japan increased steadily over the period 1995-2011, whereas the United States saw a declining share until 2005 but this decline has been more than offset between 2005 and 2011. The exports of services sector value added play an important role in the selected developed economies – EU-15, Japan and the United States. In fact, particularly in the EU-15 countries and the United States, the contribution of the services sector is significantly larger than that of industry. In the case of Japan, the contributions of the services sector and industry are roughly similar.

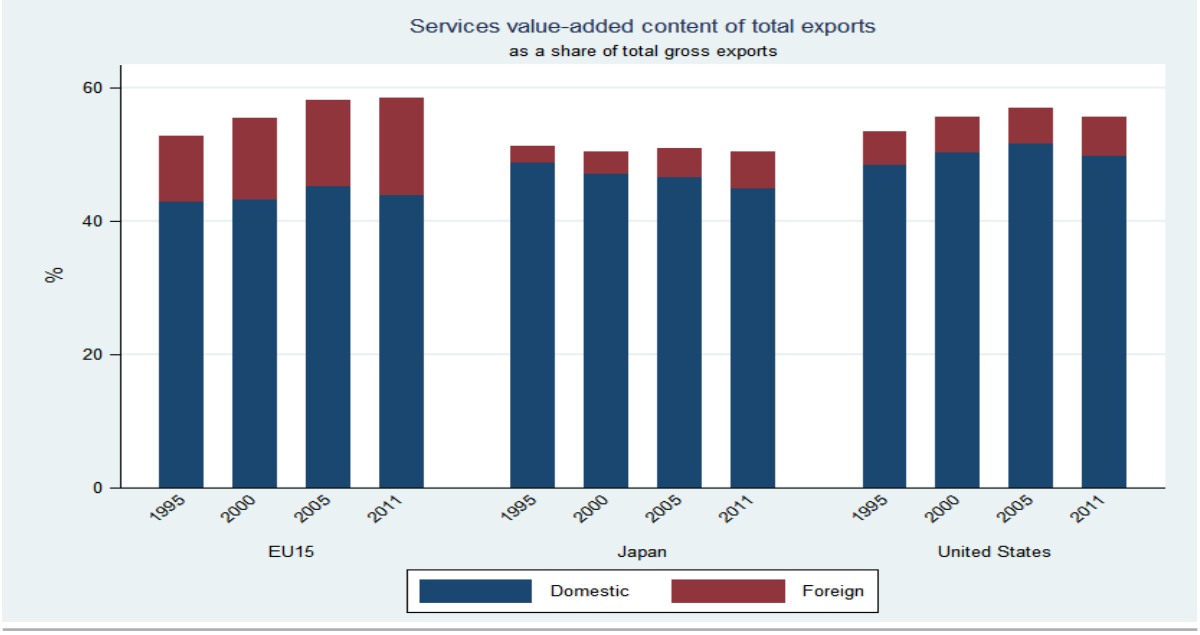
The services value-added content of gross exports is by and large similar across the selected developed economies (figure 13). The shares across the selected developed economies were practically the same in 1995 but, since then, the United States and the EU-15 have seen some increases in their shares. The EU-15 countries have recorded larger share increases than the United States, while the share has been rather stable in Japan. In terms of the contribution of foreign and domestic services, compared to Japan and the United States, for the EU-15, the share of foreign services in total gross exports is higher and increased over the period 1995-2011. The foreign services value-added content of the total gross exports of Japan increased but the increase has come mostly at the expense of domestic services.

## Figure 12. Gross exports and the exports of value added, selected developed countries



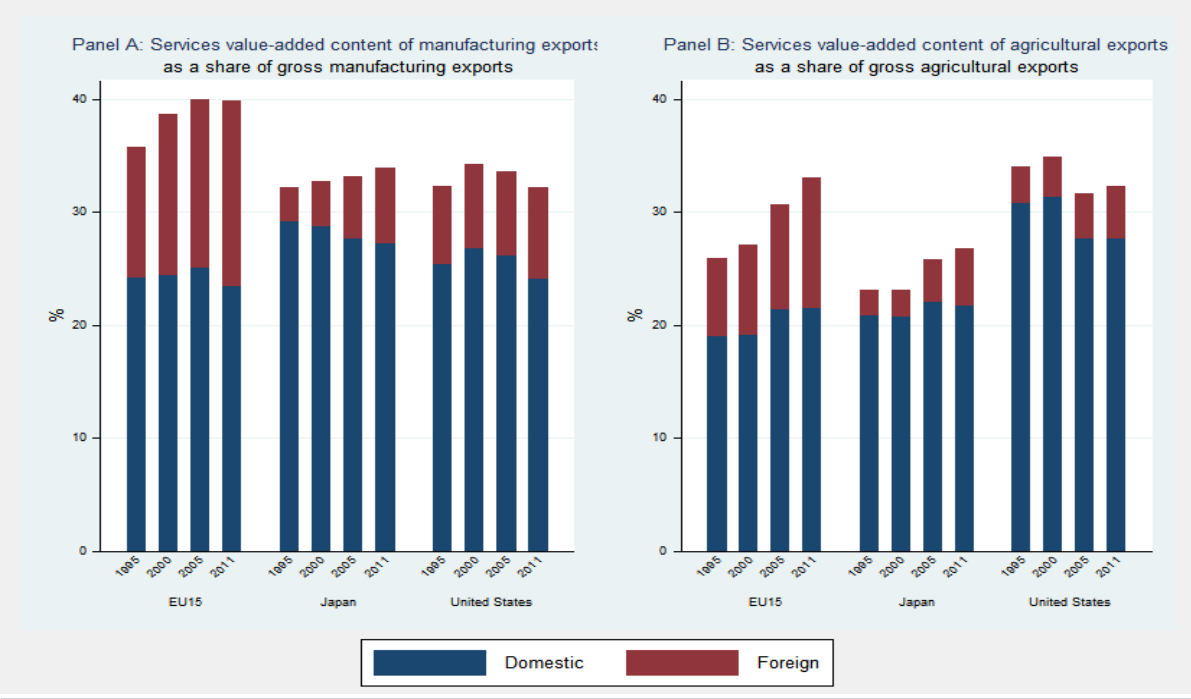

**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

## Figure 13. The services value added in gross exports, selected developed countries




**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

**Figure 14.** The services value-added content of gross manufacturing and agricultural exports, selected developed countries

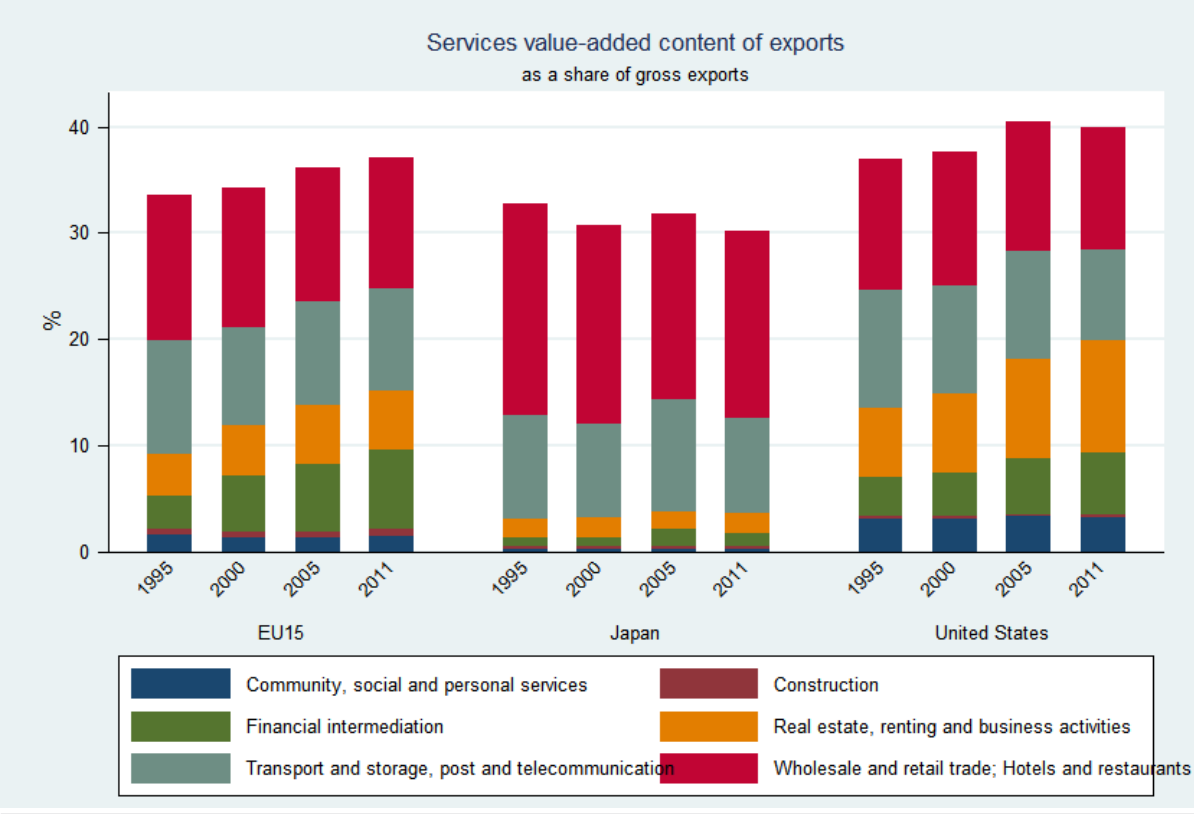



**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

Differences in the share of services value added in gross manufacturing and agricultural exports across the selected developed economies are more pronounced (figure 14). The services value-added content of gross manufacturing output is significantly higher in the EU-15 than Japan and the Unites States (figure 14, panel A). It is also visible that the share of foreign services has been increasing in the EU-15 and Japan, albeit from a low base in the latter. In the United States, the share of total services in manufacturing exports in 2011 is roughly comparable to the level recorded in 1995, after an increase between 1995 and 2000 and a decline offsetting this increase between 2000 and 2011. The share for the foreign services value-added content of manufacturing exports of the United States has been stable.

Compared to manufacturing exports, the services value-added content of gross agricultural exports is generally lower in the selected developed economies (figure 14, panel B). The United States is a notable exception to this general pattern. Also, until the EU-15 took over the lead, the United States had the highest share of services value added in gross agricultural exports. As compared to manufacturing exports, the foreign services value-added content of agricultural exports is limited and, as in the case of manufacturing exports, among the selected developed economies, foreign services make the greatest contribution to agricultural exports of the EU-15.

**Figure 15.** Services value added in total gross exports by services subsectors, selected developed countries




**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

In terms of services subsectors, the selected developed economies display both similarities and differences (figure 15). It is notable that, for all three, the business services sector (which covers transportation and storage, post and telecommunication, financial intermediation, real estate, renting and business activities) dominates the services share of value added in gross exports. This dominance is particularly strong in the case of Japan. Financial intermediation, as well as real estate, renting and business activities, have gained ground in the EU-15 and United States, while they claim relatively low shares and remain marginal in Japan. Community, social and personal services, though minor, contribute to exports non-trivially in the EU-15 and United States, as opposed to Japan, where these services do not appear to make a noteworthy contribution.

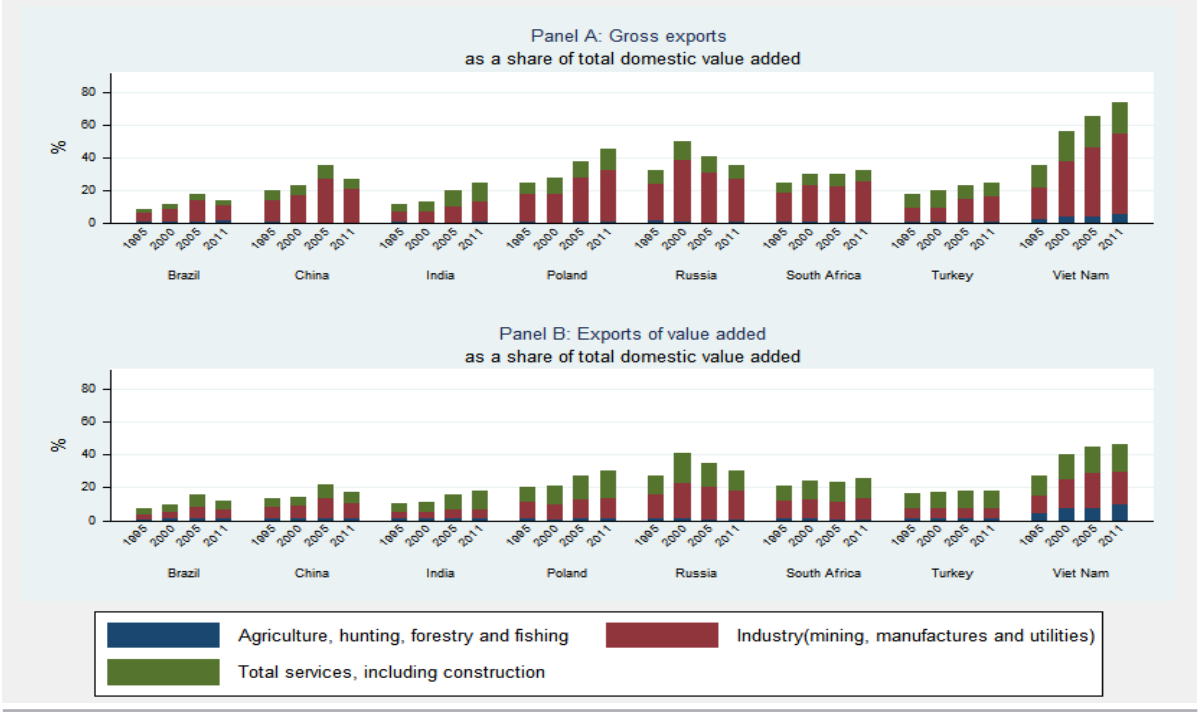
### (b) Developing economies

Developing economies exhibit varying patterns in terms of the share of gross exports in total domestic value added (figure 16). Brazil, Russia and China saw a declining share of gross exports between 2005 and 2011, possibly reflecting the impact of the global financial crisis. In India, Poland, South Africa, Turkey, and Viet Nam, the share of total gross exports has

increased steadily. Viet Nam, in particular, managed to increase the share of total gross exports in total domestic value added drastically thanks to a surge in industry and services exports. The share of gross services exports increased appreciably in India, particularly between 2000 and 2005, and in Viet Nam between 1995 and 2000, while in South Africa and Turkey, the share has not changed or even decreased slightly.

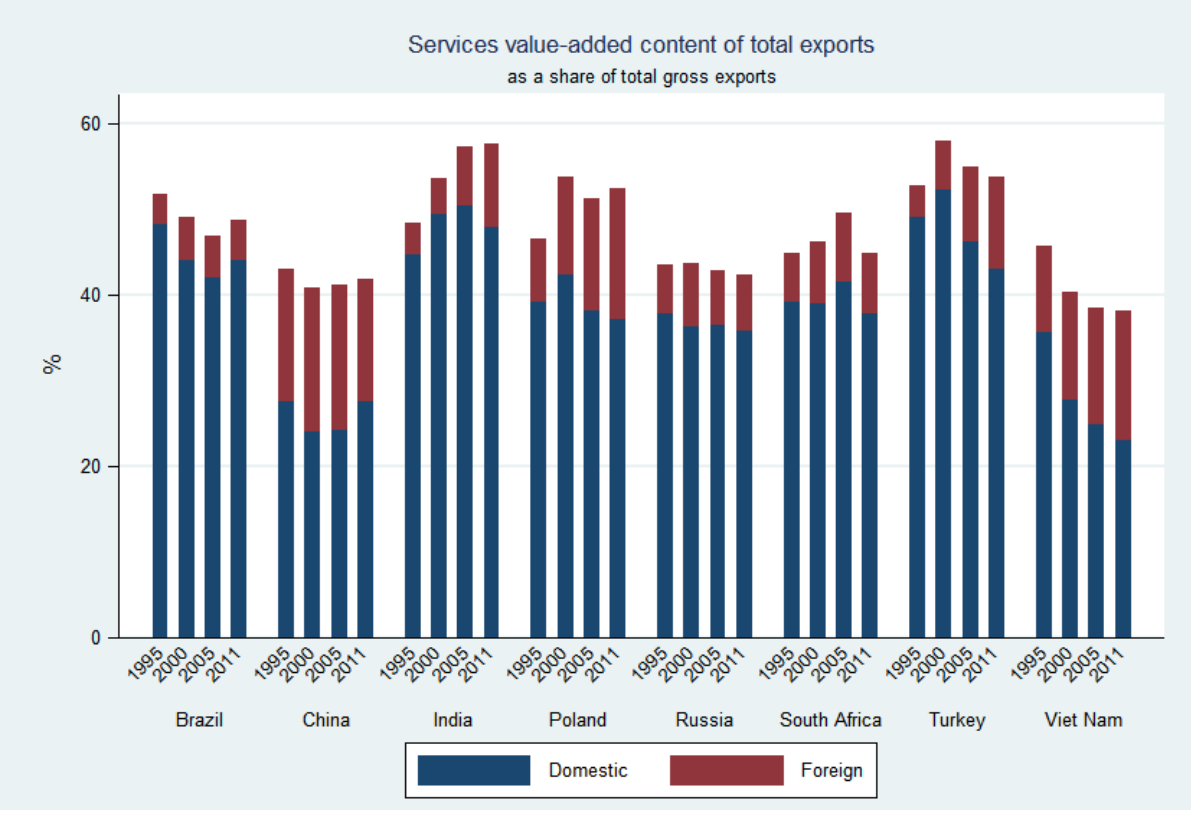
A similar picture for developing economies emerges when trade in value-added terms is considered (figure 16, panel B). The time profiles of the total exports of value added vary widely across countries. While countries such as India, Poland, Turkey and Viet Nam have witnessed a steady increase in the share of the exports of value added in total domestic value added, this share has been declining since 2000 for Russia and between 2005 and 2011 for Brazil and China. South Africa also saw a slight decline between 2000 and 2005 but the share recovered between 2005 and 2011. Compared to gross trade figures, it is notable that the contribution of the services value added to gross total exports is much higher for the selected developing countries. The share of industry, however, is lower than for trade in gross terms. A possible explanation for this pattern is the specialization of most developing countries in the manufacturing/assembly stages. Also, the share of agriculture, hunting, forestry and fishing increases, reflecting the importance of processed food products, beverages and tobacco in the exports of the countries in question.

**Figure 16.** Gross exports and the exports of value added, selected developing countries




**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

**Figure 17.** The services value added in gross exports, selected developing countries

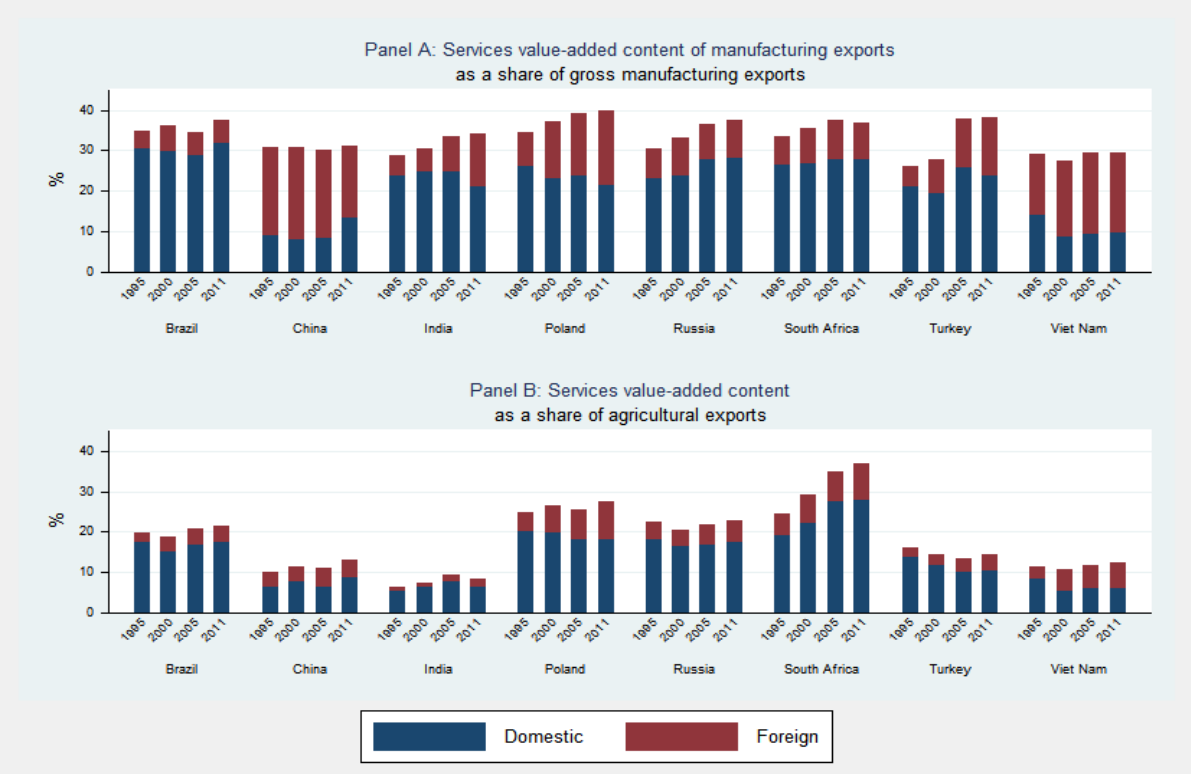



**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

Commensurate with the diversity of the selected developing economies, the services value added of gross exports vary considerably (figure 17). For instance, in 2011, the services value-added share in total gross exports approached 60 per cent for India while it was below 40 per cent for Viet Nam. In terms of the time profiles of the share, the picture is somewhat mixed. India has seen a steady increase in this share while Russia and Viet Nam have registered steady declines. Brazil saw an improvement between 2005 and 2011 after a steady decline between 1995 and 2005, though the share remained below its level in 2000. Following a sharp decline between 1995 and 2000, the share of services value added in China has practically remained the same.

Prior to having experienced a sharp decline between 2005 and 2011, the share in South Africa increased between 1995 and 2005. Turkey has registered a steady decline in the share since 2000 after a relatively sharp increase between 1995 and 2000, which has yet to be completely negated. Poland saw a sharp increase in the share between 1995 and 2000 and a relatively smaller decline between 2000 and 2005, but the increase between 2005 and 2011 was not enough to reach the level achieved in 2000. The share of foreign services value added is particularly high in China and Viet Nam, possibly reflecting the extent of their global and regional value chain engagement.

**Figure 18.** The services value-added content of gross manufacturing and agricultural exports, selected developing countries

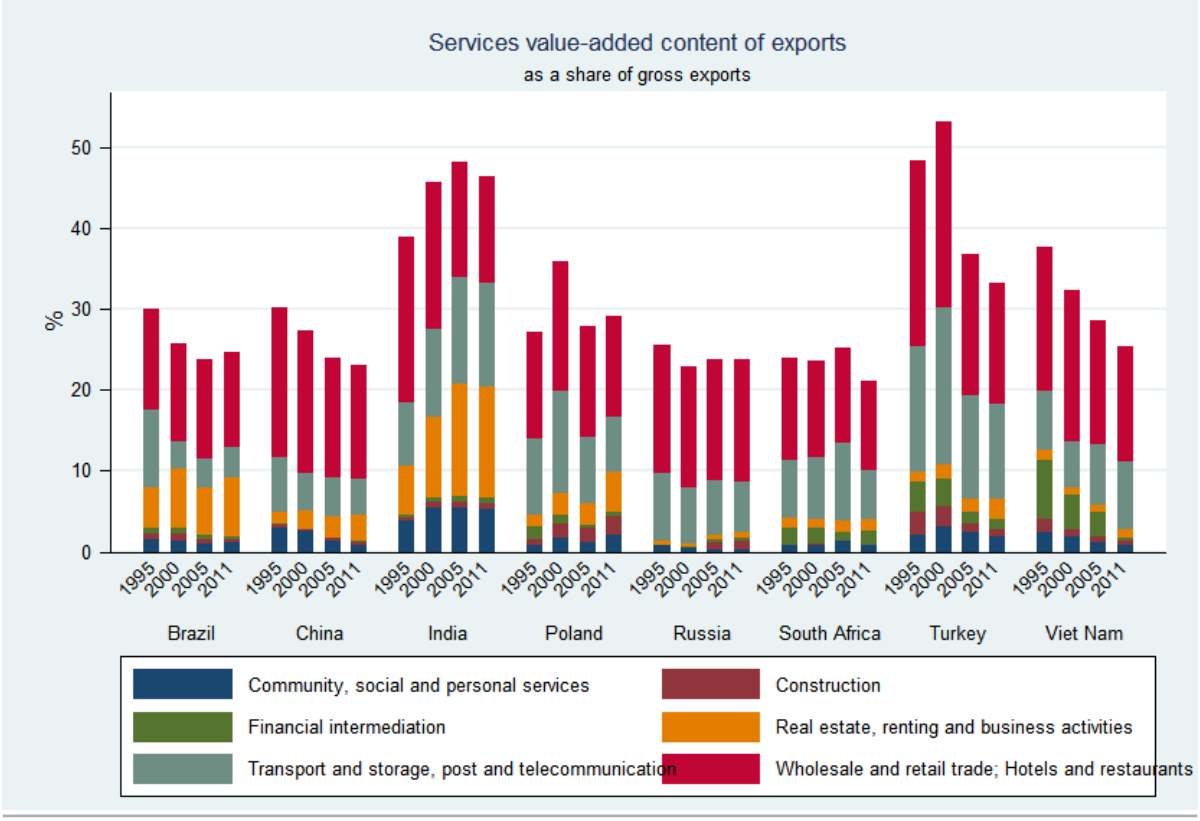



**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

In terms of services value added in gross manufacturing exports in the selected developing economies, the selected countries seem to have clustered around two groups, with India so far staying between the two (figure 18, panel A). As of 2011, the share of services value added in gross manufacturing exports in Brazil, Russia, Poland, South Africa and Turkey converged to similar levels, to around below 40 per cent. In the other group, consisting of China and Viet Nam, the share has hovered around 30 per cent. India currently stands between the two groups but appears to be on course to join the first group. It is also striking that the share of foreign services is particularly high in the latter group.

The services value-added content of agricultural exports varies considerably across the selected developing countries (figure 18, panel B). South Africa appears to set itself apart from other countries, by registering a steady increase from a level that can be considered already comparatively high. Also, Poland, Russia, and to some extent Brazil, could be included among countries with relatively high levels of services value-added content of agricultural exports. Foreign services contribute significantly to the agricultural exports of Poland South Africa, and Vietnam, though the share of domestic and foreign services combined remains to be much lower.

**Figure 19.** Services value added in total gross exports by services subsectors, selected developing countries




**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

As in the case of the selected developing countries, the business services sector, (which, as noted, covers transport and storage, post and telecommunication, wholesale and retail trade, and hotel and restaurant services) provides the bulk of the services value-added content of gross exports in the selected developing countries (figure 19). Real estate, renting and business activities claim a relatively high and increasing share of services value-added content for Brazil and India and, to a lesser extent, the same applies to China and Poland. Financial services made a significant contribution to gross exports, but its share has diminished, most notably in the exports of Turkey and Viet Nam, but also for South Africa. Community, social and personal services contribute significantly to the exports of India. The contribution of these services has been discernible, although declining, for Brazil, China and Turkey. Construction services contributed to gross exports in Turkey and Viet Nam but have largely lost their significance since 2000. In Russia, however, construction services appear to be gaining a foothold.

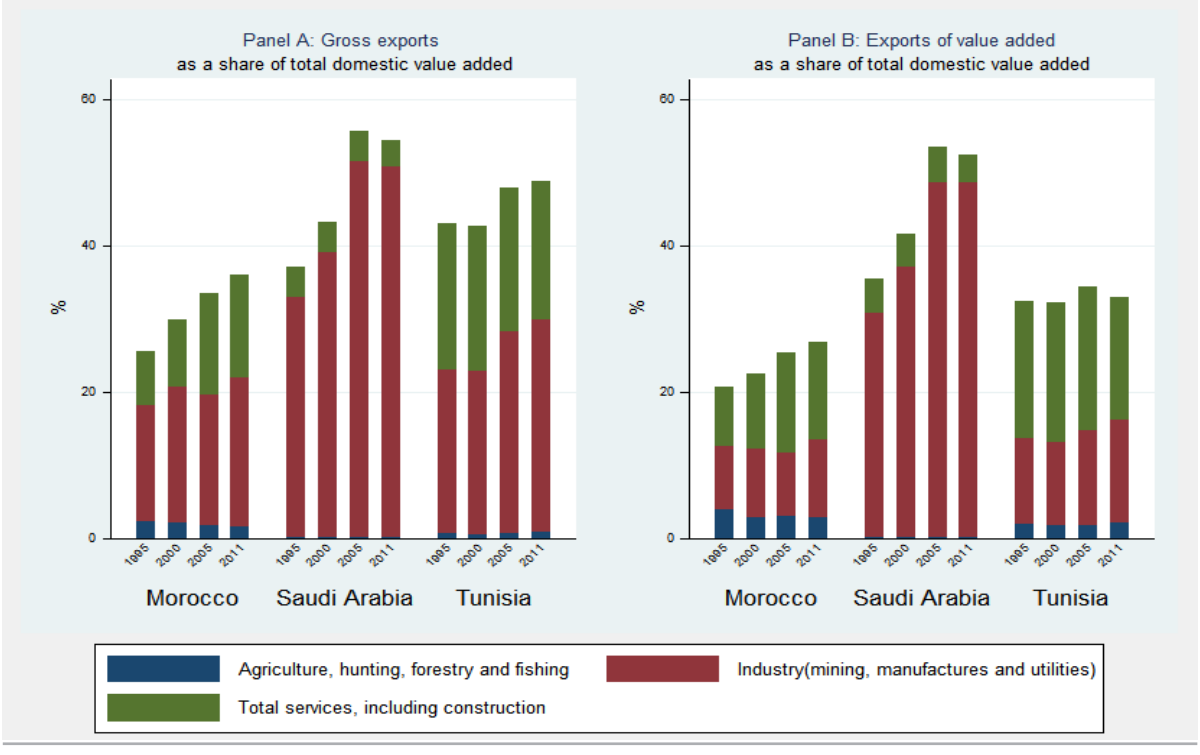
### (c) Arab countries

Data are available for three Arab countries – Morocco, Saudi Arabia and Tunisia – with each

country having a distinct evolution for the share of gross exports in total domestic value added (figure 20, panel A). The share of gross exports in total domestic value added increased steadily for Morocco. While the share has generally increased for Saudi Arabia and Tunisia, it also registered a slight decline, between 2005 and 2011 for Saudi Arabia and between 1995 and 2000 for Tunisia. For Saudi Arabia, industrial goods represent the bulk of exports; after peaking in 2005, they have in more recent years declined slightly. Although the share of industrial exports is lower for Morocco and Tunisia, it has increased steadily for these two countries. The shares of gross services exports have been fairly stable for Tunisia and Saudi Arabia, suggesting that the increase in the share of gross exports can be associated with industrial exports. Yet, for Morocco, the share of services exports has been increasing gradually.

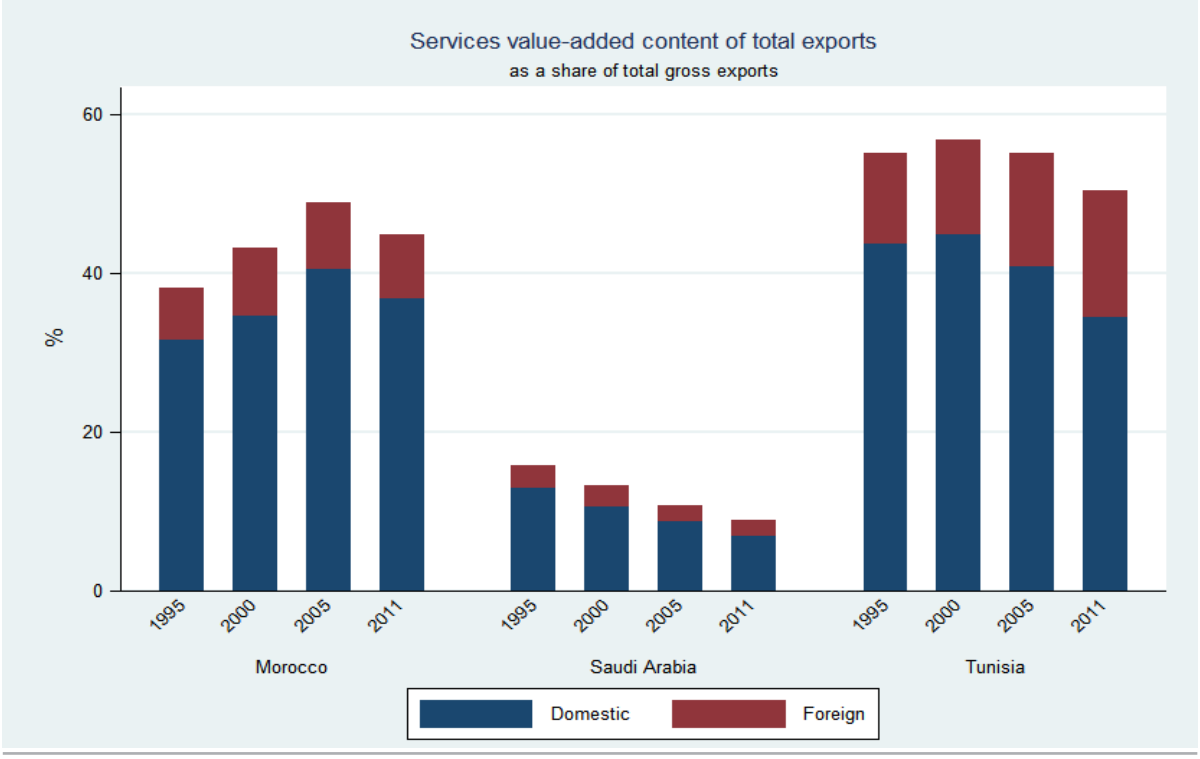
As a result of the dominance of natural resources in economic activity and exports, there is little difference for Saudi Arabia between the trade patterns in gross and value-added terms (figure 20, panel B). The situation, however, is different for Morocco and Tunisia. In both countries, the relative contributions of services and agriculture are more pronounced. The time profiles for the share of exports of value added in total domestic value added are relatively similar to those of gross exports.

**Figure 20.** Gross exports and the exports of value added, Arab countries




**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

**Figure 21.** The services value added in gross exports, Arab countries

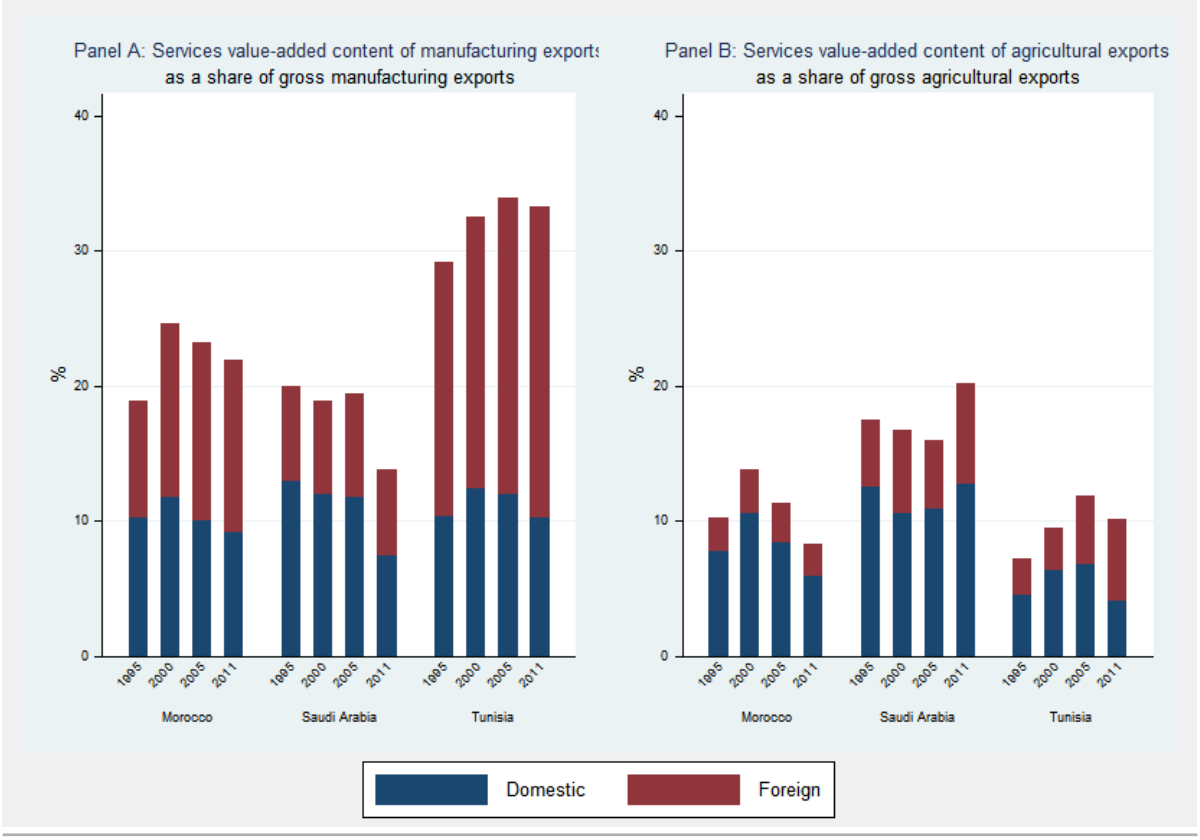



**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

The services value-added content in total exports has shown different tendencies in the Arab countries (figure 21). For Saudi Arabia, the share has been steadily declining, starting from a very low base. The share is rather high in Tunisia by international standards but, after having been quite steady, it went down between 2005 and 2011. Morocco also registered a decline over the same period, after steady increases between 1995 and 2005. In both countries, the drop in the share of domestic services has been marked.

The services value-added content in the manufacturing and agricultural exports of the Arab countries exhibits a different pattern relative to that of total exports (figure 22). For Saudi Arabia, the services value-added content of manufacturing exports has been rather low (compared to both developing and developed economies) and, furthermore, declined sharply between 2005 and 2011. For Tunisia, the share has been relatively high and stable since a marked increase between 1995 and 2000. Morocco, however, registered a sharp increase between 1995 and 2000 that, since then, has been partially eliminated. The contribution of foreign services appears to be rather high in Tunisia and, to a lesser extent, in Morocco, suggesting that these two countries are specialized in downstream manufacturing activities. The low value-added content of services and relatively high share of domestic services in services value-added content in Saudi Arabia reflect its production structure, including the dominance of natural resources.

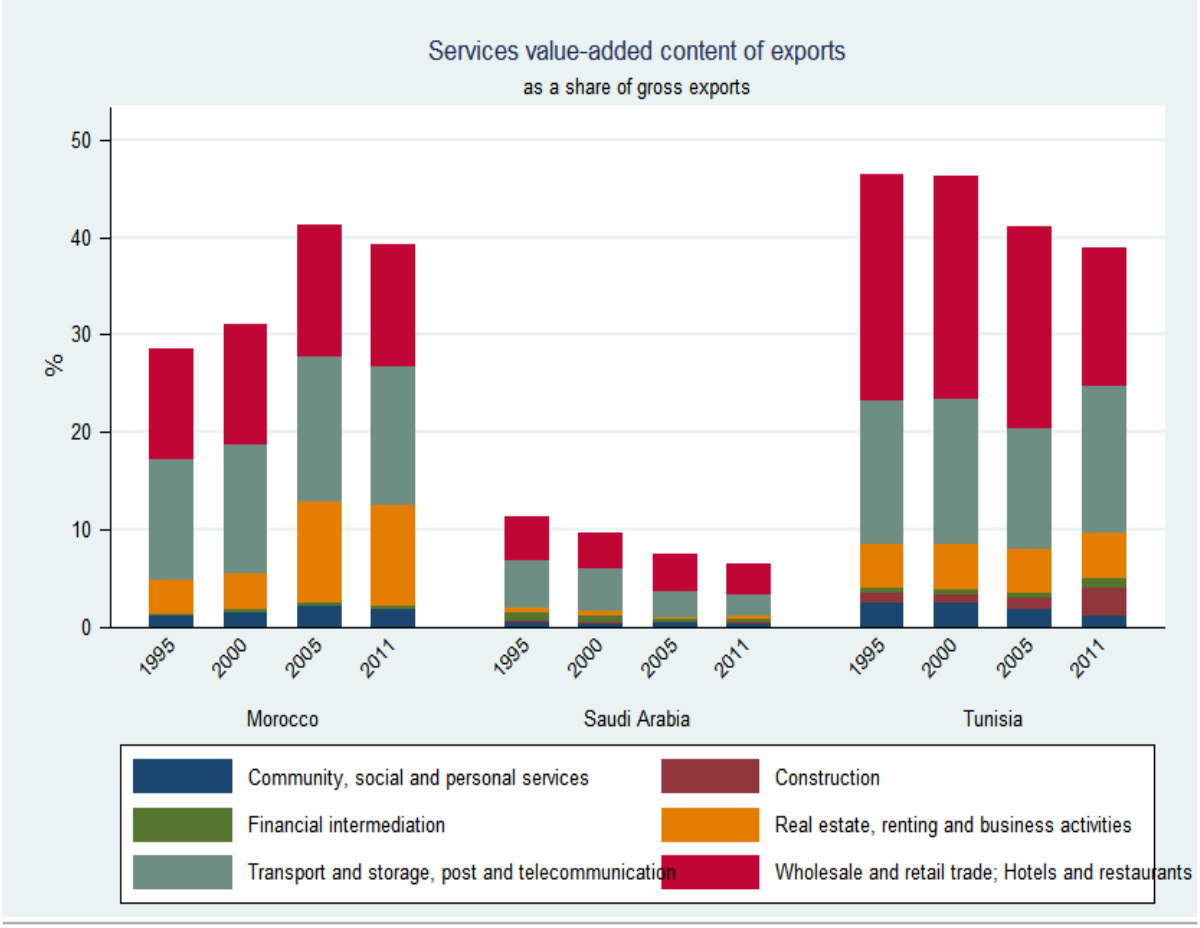
**Figure 22.** The services value-added content of gross manufacturing and agricultural exports, Arab countries




**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

Most of the services value-added content of gross exports in the three Arab countries come from business sector services (figure 23). In the case of Saudi Arabia, this is particularly stark. As of 2011, almost all of the services value-added content of Saudi Arabia's exports came from the business services sector, but the services value-added content as a share of gross total exports remained rather low. In Tunisia, community and social personal services contributed significantly to gross exports but the share of its value-added content had declined sharply since 1995. Construction services appeared to more than offset this decline but not the larger decline in the total business sector. More specifically, in Tunisia, transport and storage, post and telecommunication services had roughly maintained their share in gross exports but the share of wholesale and retail trade, and hotels and restaurants had shrunk. In Morocco, business sector services, in particular real estate, renting and business activities had been driving the services value-added content of total exports. Although still limited, community and social personal services were claiming a higher share in the exports of Morocco.

**Figure 23.** Services value added in total gross exports by services subsectors, Arab countries




**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

## 3. Lessons from TiVA evidence: Arab countries and selected regions

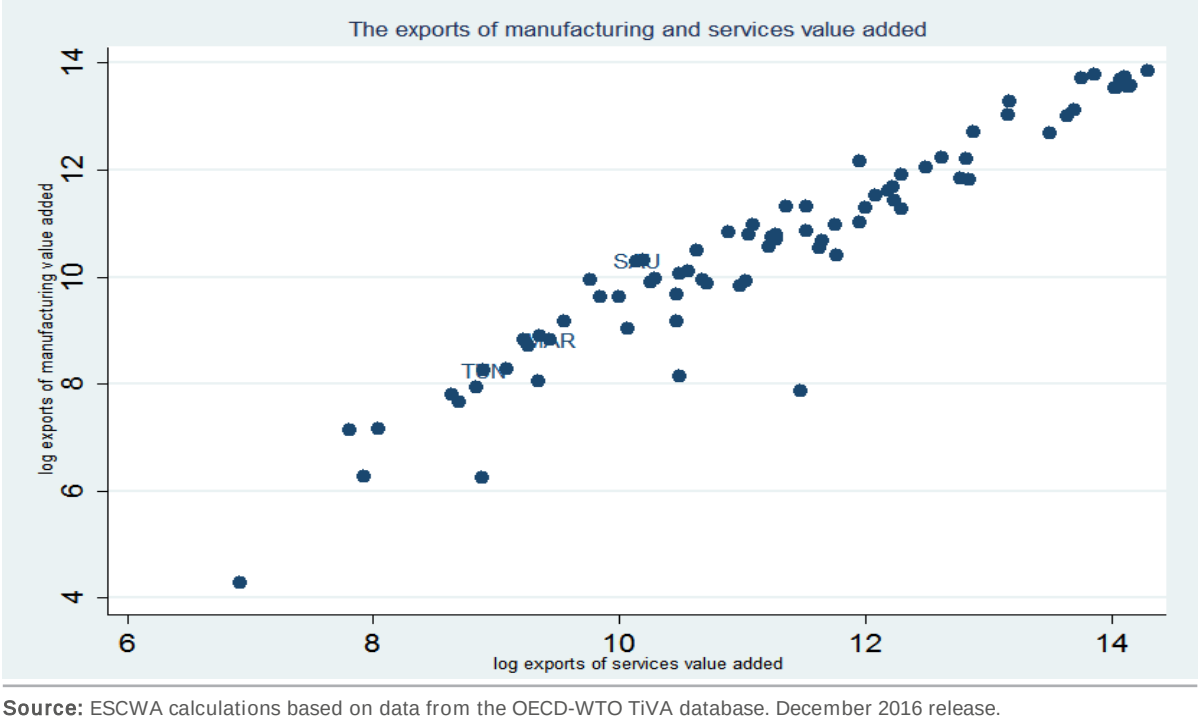
Comparing the share of services in gross and value-added terms across countries is not straightforward. Both policy and structural factors play a role in the observed services value-added content of exports, as in the case of gross trade flows. This is also suggested by the gravity theory of trade. For instance, a larger domestic market size allows countries to source a relatively larger share of services inputs domestically to use in producing their exports. Also, the level of development has implications for the nature and extent of a country's exports. At earlier stages of development, specializations in primary products, which tend to be used as imported inputs in production of more sophisticated products in partner countries, dominate production and trade flows. As a country further industrializes, it can engage in assembly activities driven by efficiency advantages. The emergence of a competitive services sector and capacity to engage in more innovative activities take place at later stages of industrialization. Therefore, an accurate way of assessing the service trade

performance of a country entails looking at how policy and non-policy characteristics contribute to performance and comparing actual outcomes to this benchmark. In other words, decomposing the contributions of structural, geographical and policy factors to services trade performance may help to properly identify the role of policy-induced constraints.

Nevertheless, the comparative analysis of the previous section provides insights on the performance of the Arab countries included in the TiVA database compared with other countries.

The following stylized facts emerge from the analysis in the preceding section. First, the services value-added content of total exports is high in developed economies compared to developing economies; it is also by and large increasing. Some developing economies, including Tunisia, fare better compared to the rest but, with the exception of India, they appear to be losing ground. Second, the services value-added content of the manufacturing and agricultural exports of developed economies and that of leading developing economies are roughly similar. The high share of foreign services value added, however, sets developing economies apart from developed economies. In this regard, Tunisia stands out among Arab countries as a relatively high-performing developing economy.

**Figure 24.** The exports of manufacturing and services value added




**Source:** ESCWA calculations based on data from the OECD-WTO TiVA database. December 2016 release.

## B. Conclusion

The services sector is the major frontier in trade liberalization, and progress in this area is likely to bring enormous economic gains to all countries in the world. Moreover, compared to trade in goods, ex-post and ex-ante analysis show that promotion of services trade is often a relatively important source of FDI inflows and job creation. In the Arab region, apart from the weight of public services, the private services sector is an important economic activity, employment and investment. It is likely to become more prominent, especially in developing countries. Conceivably, Arab countries stand to benefit from liberalizing trade in services. The full extent of potential benefits and adjustment costs are closely related to the barriers that are currently in place. The following chapter will explore the nature of such barriers for selected services sectors in Arab countries.

# 3. The Performance of and Barriers to Trade in Services in the Arab Region

# 3. The Performance of and Barriers to Trade in Services in the Arab Region

## A. Introduction

Arab countries are rather heterogonous in terms of size, economic and social structures, and endowments. Comparisons of the output and employment shares of the services sector in individual countries reveal that the performance of Arab countries in services output and trade is also diverse, ranging from countries that rely on oil and in which services play a relatively marginal role (such as GCC countries) to diversified Arab economies (such as Lebanon) in which services are central as in more mature advanced economies.

This chapter also attempts to evaluate the restrictiveness of barriers to services trade at the country level. For three key service sectors, a comparison is made with other major regions and trading blocs, using information on policies and regulatory frameworks for trade in services and FDI. The restrictiveness of policy regimes is illustrated for transport, financial and telecommunications sectors given that the linkages of these sectors to the rest of the economy tend to be strong with potentially large gains from liberalizing them. In addition, the focus on these sectors is justified by their relevance to regional integration.

Finding adequate data on services trade restrictions is a challenge and the problem is particularly acute in the case of developing countries, including those in the Arab region, given the contrast between the importance of the services sector and our limited knowledge about policies and regulations with a bearing on trade in services. Also, the multiple modes through which services are traded magnify the challenge of identifying policies and regulations restricting trade in services. Accordingly, in order to adequately asses the restrictiveness of a policy regime, information is needed on a wide range of general and sector-specific policies and regulations, including ownership restrictions, discrimination in licensing, restrictions on the operations of foreign services providers, and discriminatory macroprudential regulations.

Our analysis of the restrictiveness of policies and regulations related to services trade draws on the Services Trade Restrictions Database (STRD), constructed by Borchert, Gootiiz and Mattoo (2012). For 103 countries and 5 services sectors, the STRD collects comparable data, both publicly available data and information gathered through questionnaires, on policies affecting services trade. The STRD provides an incomplete yet relatively broad coverage of Arab countries, especially compared to other information sources, which try to uncover the restrictiveness of a policy regime from policy commitments under international agreements or domestic policies.

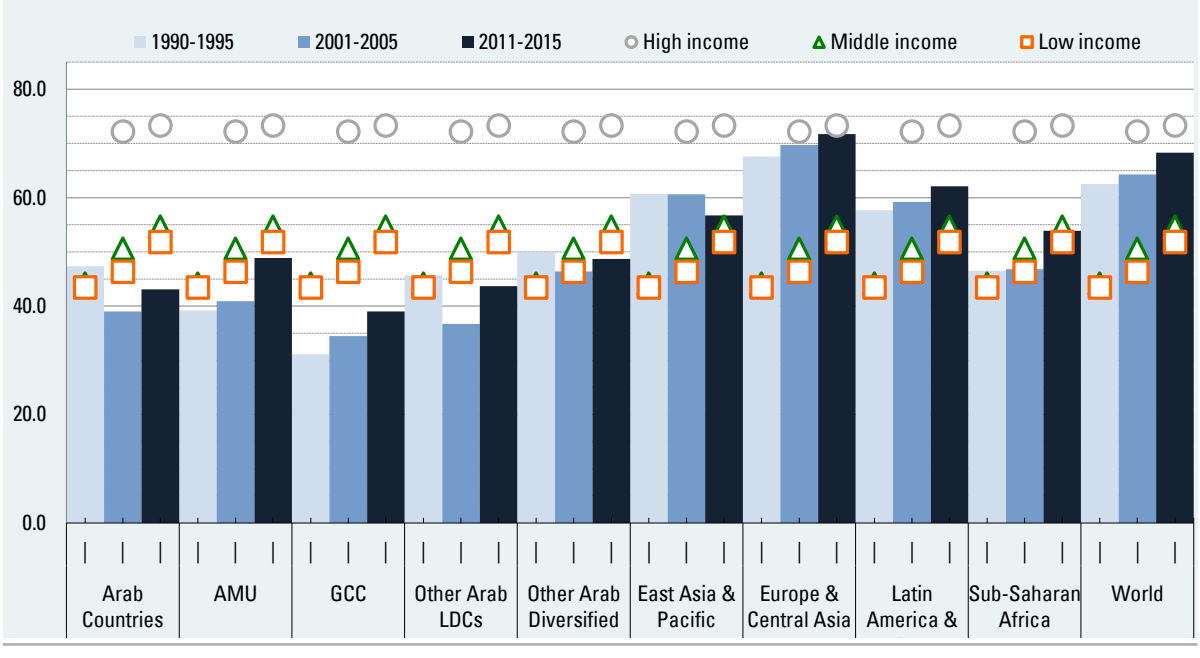
## B. Services as a driver of economic activity and integration

### The contribution of the services sector to economic activity and growth

A simple measure of the importance of services in economic activity is the share of GDP originating in services. In conjunction with data on how services value added evolved in recent years, this simple measure gives us a broad sense of the performance of the sector in the Arab region in relation to the rest of the world, including comparator regions.

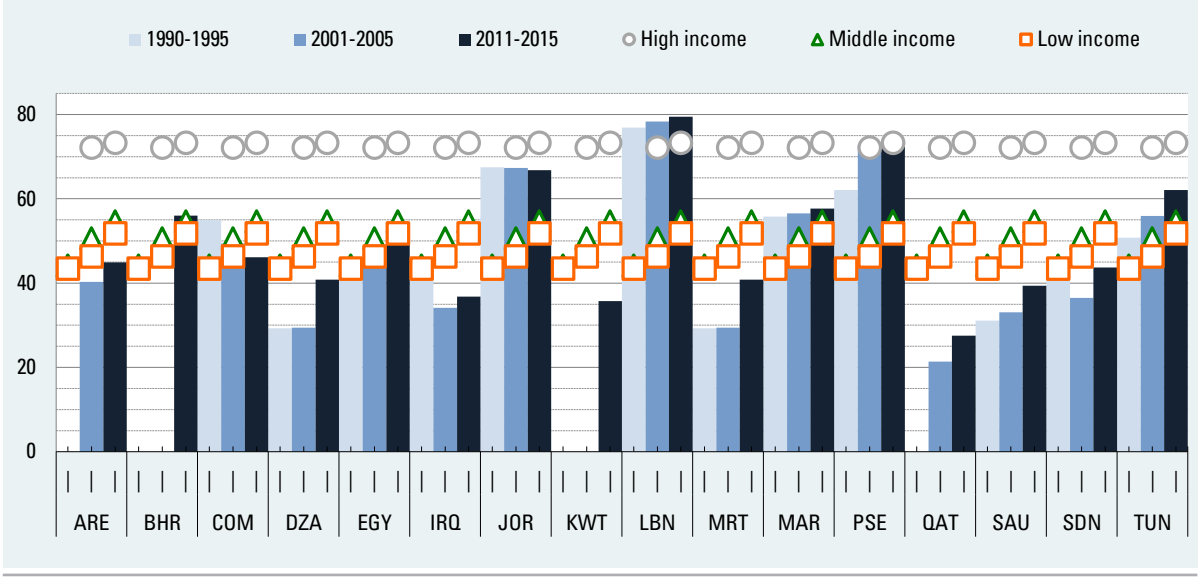
The share of the services sector in total output in the Arab region is significantly lower than in other regions or what is expected given the level of income per capita (figure 25). The average for the Arab region, however, masks subregional differences. For the GCC countries, which are dominated by natural resources, the service share in total output is rather low, even though it has increased significantly since 2000.The AMU and Arab LDCs also have rather low shares of services in GDP, even after controlling for their income levels. The prominence of the services sector in more diversified Arab countries is in line with countries at similar income levels in other regions. Apart from diversified Arab economies, the services sector has steadily gained ground in the Arab region since 1990, albeit to differing extents in different subregions and over different time periods.

**Figure 25.** Services share in output across regions and Arab subregions




**Source:** Authors' calculations using World Development Indicators database (last accessed October 25, 2017).

**Figure 26.** The evolution of the services shares in value added for Arab countries, compared with the global averages for different income groups




**Source:** Authors' calculations using World Bank Indicators database (last accessed October 25, 2017).

For some countries, the output share for the services sector share is higher than suggested by country income level; Lebanon and the State of Palestine are notable examples (figure 26). Yemen, for which data are not available for more recent years, is the only Arab country for which the services output share is below that of the industrial sector, 40 per cent against 49 per cent in 2006. In fact, Yemen had experienced a relatively rapid period of industrialization before the current conflict broke out – the value-added share of its industrial sector increased from around 35 per cent in 1991 to 49 per cent in 2006.

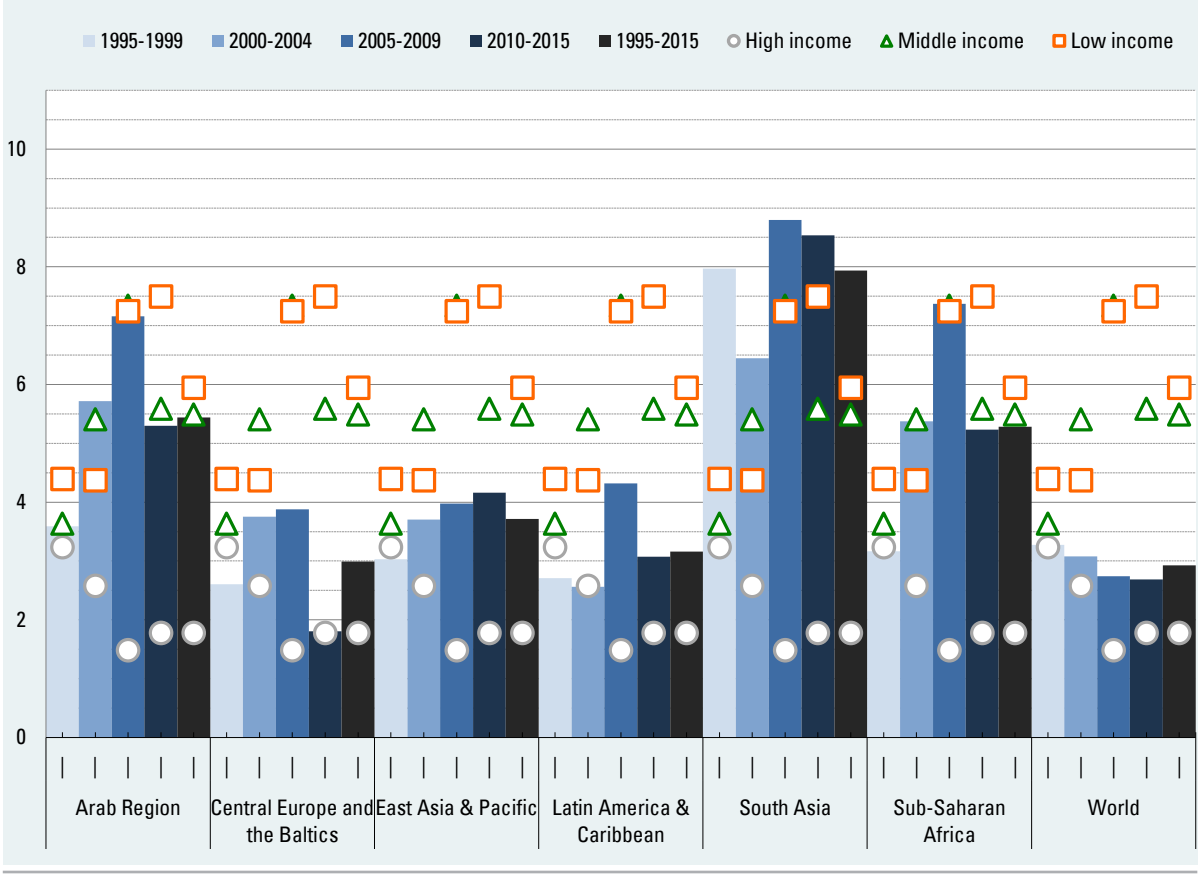
Another interesting pattern emerging from the evolution of the share of services in total value added is that most Arab LDCs seem to be skipping the industrialization in their development process. For instance, in Comoros, Mauritania, and the Sudan, the share of the services sector has increased sharply over the last two decades while the industrial sector has lost ground. Also, in these countries, the agricultural sector still accounts for a fairly large share of output.

The experience of more diversified Arab economies could provide some guidance on the path that Arab LDCs might follow in the future in terms of the services sector output share. Arab countries, such as Algeria, Egypt, Morocco, and Tunisia, have seen their services output share increase significantly in the past couple of decades. In some of these Arab countries, the agricultural sector still accounts for a significant share of total output, indicating that there might be substantial gains from the reallocation of resources to industry and services away from agriculture. Some countries, including Djibouti, Jordan and Lebanon, resemble advanced economies in terms of their economic structures, owing to strong

comparative advantages that they have developed or possess due to geographical location. For instance, financial services are prominent in Lebanon, while Djibouti is as a major transportation platform in Africa. In these two countries, the services sector accounts for over 73 per cent of GDP.

In the GCC countries and Libya, reflecting their high reliance on oil, the industrial sector drives economic activity, and the output share of the services sector is rather low. Diversification could make it possible for these countries to reduce their exposure to volatility in oil prices, create jobs for their expanding labour forces, and boost productivity. Their services sectors could play important roles in the development of vibrant private sectors that absorb large numbers of labour force entrants (Titulaer, 2010).

**Figure 27.** Services value-added growth in selected regions

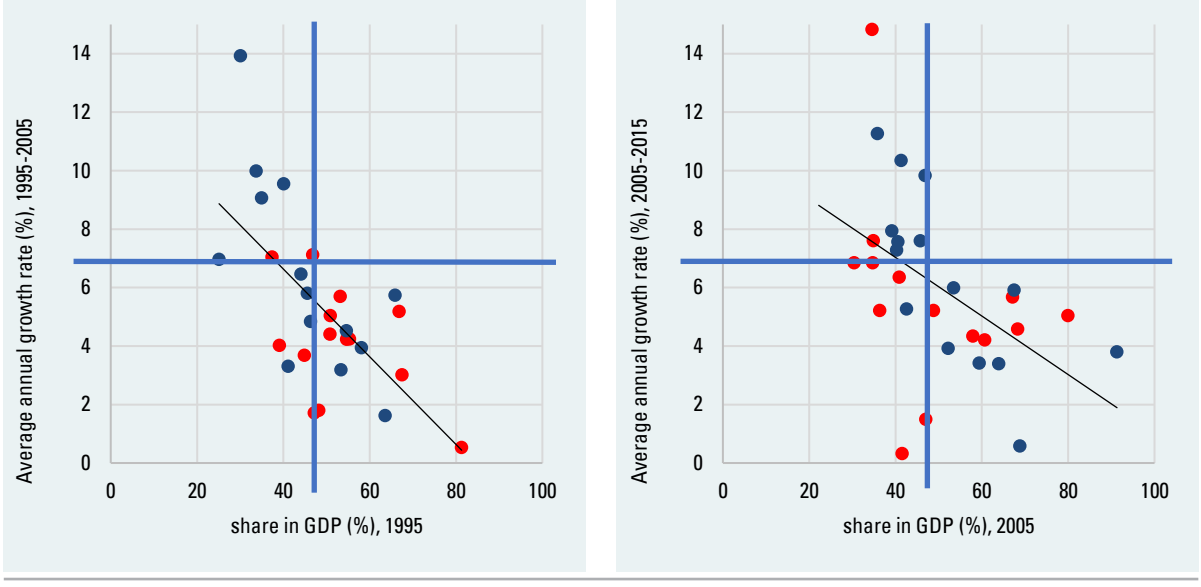



**Source:** Authors' calculations using World Bank Indicators database (last accessed October 25, 2017).

Many Arab countries are middle-income countries in which the services sectors may play important roles in maintaining growth and helping the countries avoid falling in the middle-income trap, to continue growing also after having reached an income level of $10,000-11,000 PPP per capita. Countries stuck in the middle-income trap suffer from a competitiveness deficit in traditional activities compared to countries where labour is relatively cheap while they, at the same time, may encounter difficulties competing with high-income, technologically more advanced countries. For such cases, boosting the productivity and quality of services is crucial, especially for 'backbone services', such as transport, finance or education, which are essential inputs to production in other sectors.

Arab services sectors share many of the features that, since the global financial crisis of 2008, have made the sector a key component of the development strategies of countries at all income levels. First, the growth rates of Arab services sectors rates accelerated in the 2000s (figure 27). For the Arab region as a whole, since 1995, services sector growth has closely tracked the average rate for middle-income countries and, among aggregate regions, only trailing behind South Asia.

**Figure 28.** Catching up in the services sector: ASEAN+3 countries, Arab countries and Poland




**Source:** Author's estimation using World Bank Indicators database (last accessed October 25, 2017).
**Note:** Red dots indicate Arab countries. Poland and ASEAN+3 countries are included as benchmark countries.

Second, the sector has proven to be fairly resilient (figure 27). The global financial crisis marginally affected the sector's expansion and growth rates remained quite high also during the period 2010-2015. Low-income countries were more adversely affected and the services sector annual growth rate over the same period fell by around 2 percentage points compared to the period 2005-2009. A similar loss was observed in the growth rates of the sector in sub-Saharan Africa and Central Europe and the Baltics, between the period averages for 2005-2009 and 2010-2015, though the average growth rate of the sector's value added in Central Europe and Baltics was about half of that in the Arab region and sub-Saharan Africa. Considering that there are possibly other conflating factors, such as conflict, the sector has fared well in the aftermath of the global financial crisis.

Third, the above development unleashed a process of catching up that unveiled over the last two decades as countries moved from a situation characterized by a share of the services sector in GDP below 50 per cent and growth rates of the sector below 5 per cent (bottom left quadrant, figure 28), to growth rates around 3-4 per cent and a share of the services sector between 50 and 75 per cent, (bottom right, figure 28) after the sectors' annual average growth rates accelerated to reach 6 to 10 per cent (top-left quadrant, figure 28) countries.

## C. Employment and deindustrialization in Arab countries

The services sector accounts for a large share of total employment in Arab countries. According to the latest International Labour Organization (ILO, 2017) estimates, the employment share is 80 per cent in Jordan, 75 per cent in Lebanon and also on average for the GCC countries (but significantly lower in Bahrain, Oman and Qatar, with 65, 55 and 45 per cent, respectively), and around 60 per cent in Libya, the State of Palestine and Tunisia. In Arab LDCs, the services sector accounts for 20-45 per cent of the total – the shares for Somalia, Comoros, and the Sudan are 23, 33, and 45 per cent, respectively. Those figures are quite high and should be compared with the changes in the share of industrial employment to assess what the contribution of the services sector to economic growth could be, in particular, the question of the potential occurrence of a deindustrialization process. Another cause of concern is the productivity of the services sector given the strong involvement of the State in the economy. However, in the current context of many Arab countries, productivity is a concern for private services, especially informal services that play the role of employer of last resort for those who cannot afford to be unemployed.

A deindustrialization process is characterized by the absolute decrease in the contribution of the industrial sector to GDP or of the employment in the industrial sector in percentage of the total. If, in England, for example, the share of employment in the manufacturing sector reached its pick before the First World War at 45 per cent, then fell after the end of the war to around 30 per cent until the early 1970s, it started plummeting afterward. Today, manufacturing employment accounts only for around 10 per cent of the total. The same cycle has been documented in all developed countries.

However, in developing countries, industrialization patterns have been different and, at the same time, more difficult to kick start and deindustrialization has been setting in much

sooner. In Brazil, the share of manufacturing employment stagnated at around 12-15 per cent of the total between 1950 and 1980 and has fallen since then. In India, the height of manufacturing employment was reached in 2002 at 13 per cent, a rate that has decreased constantly since then. The same applies to the United States and Sweden but also Germany, Japan, South Korea, Taiwan, China and India.

Evidence shows that productivity gaps have been closing worldwide in agriculture and industry while in the services sector productivity gaps between developing and developed countries persists, preventing developing countries to catch up with developed countries' levels of development (Duarte and Restuccia, 2010). The gap is largest in financial, telecommunication and transport services, commonly known as backbone services. However, relying on appropriate policy actions, it is possible to unlock a convergence of the productivity levels in countries furthest away from the global productivity frontier, making the services sector a genuine replacement of the industrial sector as main engine of economic development (Ghani, Kerr and O'Connell, 2011; Dadush, 2015). In such circumstances, services trade and integration have a key role to play, not only by providing opportunities for economic expansion and job creation but by improving economic performance through greater competition, adoption of international best practice, importation of technological progress, and improved attractiveness for foreign capital. High quality, effective and low-cost services, especially backbone services, could further foster trade in goods and facilitate the insertion of Arab countries in global value and supply chains, fostering integration regionally and globally. To conclude, the type of services in which countries specialize may have a strong bearing on the extent to which services become a strong and sustainable engine of economic growth, development and integration.

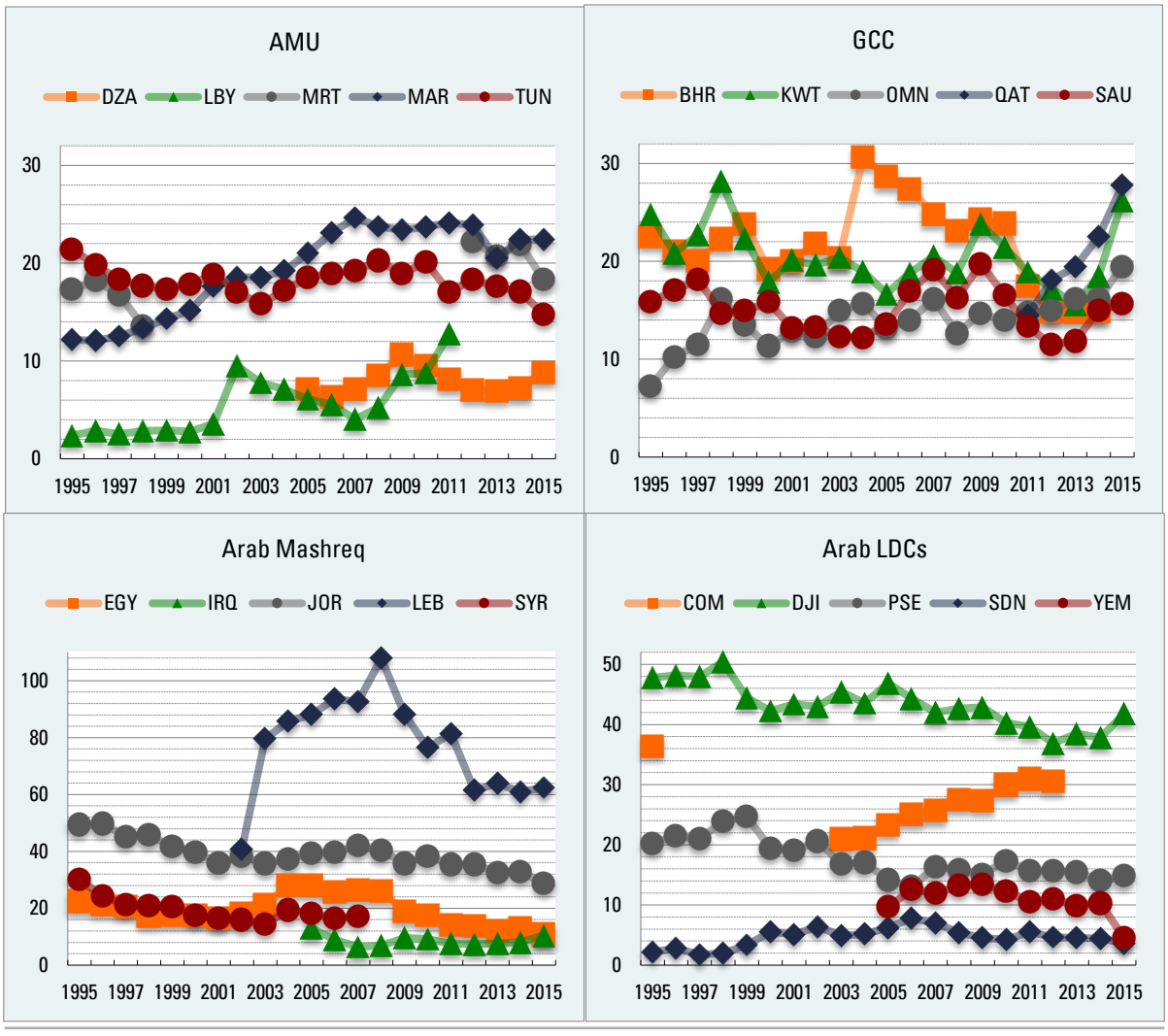
## D. Services and economic integration

The trade patterns for services in Arab countries have undergone some, in some cases profound, changes since the 2000s (figure 29). Services trade appears to be hit by the 2007-2008 global financial crisis and conflicts that have plagued several countries in the region but has grown dramatically in countries such as Comoros, Kuwait, Qatar and Libya (before the conflict, albeit from a relatively low level). Services trade tends to be more important as a share of GDP in Arab LDCs and Mashreq countries. Lebanon was an outlier among Arab countries with an exceptionally high level of services trade before a sharp decline of around 40 percentage points between 2008 and 2012, but it still stands out among Arab countries. Both GCC and AMU countries show relatively moderate levels of service trade intensity. Although most GCC countries, with the notable exception of Bahrain, have been increasing their services trade since the early 2010s, services trade, as a share of GDP, has been stagnant or losing ground in most AMU countries since the mid-2000s.

However, the composition of countries' exports is what has the strongest bearing on whether services become an engine of economic growth and integration. The services exports of Arab countries remain largely dominated by traditional services such as travel and transport. However, the share of financial services increased progressively. In this respect, there is an unexploited potential for services trade that Arab countries could tap into to boost economic

growth and employment and to strengthen regional and international integration. Most Arab countries are still primarily trading traditional services (such as tourism) that, even though they contribute to growth and integration, do little to help Arab countries insert themselves successfully in GVCs and supply chains, improve innovation, productivity and competitiveness. Despite data scarcity, it seems that the current services specialization of most Arab countries will not propel them into the digitized economy that, in the future, will bring most economic gains and integration opportunities.

**Figure 29.** Services trade balance in selected Arab subregions, 1995-2015 (Share of GDP)




**Source:** Author's calculations using World Bank Indicators database (last accessed October 25, 2017).
**Note:** Trade in services is the sum of service exports and imports divided by the value of GDP, all in current US dollars. The original data are based on the sixth edition of the IMF's Balance of Payments Manual and does not cover services trade through commercial presence (mode 3).

However, a few Arab countries have developed comparative advantages, including Bahrain in telecommunication services; Lebanon in communication, transport, financial, construction, and professional services; Morocco in computer and other technical and professional services; the State of Palestine in telecommunication, construction and other commercial services; and Tunisia in health tourism. Many of the GCC countries are competing to become the financial services centre of the region.

## E. Evaluation of services trade barriers

Barriers that may hinder services trade are quite different from the ones that limit goods trade. Services trade restrictions are primarily behind-the-border measures and could take a variety of forms, including requirements for additional diplomas, certificates or licenses, requirements on input use, marketing, local professional insurance, membership of professional association, juridical form, and others. Regulatory measures could be in place to serve different legitimated and justified purposes, such as ensuring consumer protection and macroeconomic stability. Nevertheless, the regulatory framework should not become a burden and discourage trade and investment to allocate effectively their resources, maximize their economic gains and fully exploit opportunities for integration. Regulation alone is not the main barrier to services trade. It is regulatory heterogeneity across countries that chiefly discourages firms to supply a market abroad or invest in a foreign country. Indeed, the alien regulation adds to the regulation that applies in the home country leading to a rise in compliance costs that are specific to a given market and are fixed, meaning that they do not depend on the size of the firm, and affect small and medium-sized enterprises (SMEs) disproportionately.

Evaluating barriers to trade in services is a challenging task. Systematic efforts to collect data in this area remain limited and, if collected, such data are often not updated on a regular basis. A relatively broad coverage of Arab countries is another key constraint, making STRD, constructed by Borchert, Gootiiz and Mattoo (2014), the only viable alternative for the analysis presented in this chapter. STRD provides a detailed account of barriers to trade in key services sectors for 12 Arab countries (see box 3 for additional details on STRD). The information collected in STRD refers to applied policies essentially in 2010 and is assumed to be reasonably up to date, based on what can be inferred from other databases on services trade restrictions (box 4). As is, the database could inform the policy debate on whether Arab countries are more open or closed to trade in services than other countries but neither provides details on the pace of services sector reforms nor explains whether they are more integrated internally than vis-à-vis the rest of the world. In other words, the database does not allow us to assess whether Arab countries are integrating faster regionally or into the global economy than other regions and trading blocs.

## Box 3. The World Bank Services Trade Restrictions Database

The Services Trade Restrictions Database (STRD) combines qualitative and quantitative data on policies and regulations that restrict services trade, including the key aspects of the regulatory environment that discriminate against foreign services or service providers (Borchert, Gootiiz and Mattoo, 2014). The Services Trade Restrictiveness Index (STRI) is constructed using this information, expressing the openness of a policy regime on a scale from 0 to 100 for each subsector and mode of service delivery. Data for subsectors are summarized in aggregated scores. The database covers 103 (24 OECD and 79 developing) countries, providing a broad coverage of regions and income groups.

For developing countries, on the one hand, the database is based on questionnaires administered over the period 2008-2010 and filled out by local law firms, which were deemed familiar with relevant policies and regulations. The information has been validated and/or updated by the authorities. On the other hand, for OECD countries, the information draws on publicly available sources.

The sectoral coverage of the database is dictated by economic importance, existence of restrictions and feasibility considerations. Five main services sectors were identified: financial (banking and insurance) services, transportation, telecommunications, retail distribution, and professional services; these five sectors were further disaggregated into subsectors.

Nevertheless, some important services are not included in the database. Crossborder trade in business processing services is not covered, as such services are rather fragmented or often not subject to explicit restrictions, in part owing to the expanding scale and scope of digital delivery, particularly for professional intermediate services. Other important services sectors that are missing are those that rely on the international movement of low-skilled labour, on the grounds that policies and regulations tend to be rather opaque in this area. Construction services are a prime example.

STRD covers three modes of supply: crossborder supply (mode 1 of GATS), establishing commercial presence or FDI (mode 3), and the movement of natural persons (mode 4). The database does not cover the supply of services by foreign providers through consumption abroad (mode 2 of GATS), which leads to the omission or serious underestimation of health, education and tourism, as mode 2 is particularly important for these sectors. Among the different modes, the establishment of commercial presence or FDI is relevant for all service subsectors while crossborder supply is an important channel for financial, transportation and some professional services. The movement of natural persons is particularly relevant for professional services.

The database is primarily based on a questionnaire that includes two sets questions, a core set for all sectors and subsectors and a set that is sector-specific. The first set relates to mode 3, which is identified as a relevant mode of supply for all subsectors and broadly falls into the following categories: requirements on the legal form of entry and restrictions on foreign equity; limits on licenses and discrimination in their allocation; restrictions on operations; and regulatory obstacles.

Across all supply modes, the sector-specific questions address restrictions related to the nature of specific services sectors. Examples of such restrictions are rules for the size and term of loans that can be extended to domestic consumers by foreign banks and rules specifying whether foreign shipping firms are allowed to establish their own facilities and to serve only their own ships or also other ships. The details on the sector-specific measures for the sectors considered in this report are described in the text.

To a large extent, the database reflects non-preferential policies and regulations. That is, if countries are engaged in bilateral or regional partnerships and offer more lenient conditions to the countries that are parties to such arrangements, the database generally captures the non-preferential policies and regulations that are maintained towards the rest of the world. A notable exception in the database is the European Union (EU). A new entity, called EU20, was created to reflect the average restrictiveness of EU member countries' policies and regulations for services trade vis-à-vis the rest of the world. This differs from the average restrictiveness scores of individual EU countries, which reflect a trade-weighted average of intra- and extra-EU policy regimes.

### Box 4. How representative is the STRI of more recent stance of services trade regimes?

While the Services Trade Restrictions Index (STRI) has a very broad country, sector, and modes of delivery coverage relative to other alternative data sources, it is dated and has not been systematically updated since its inception. The database broadly refer to the restrictiveness of policy stance as of 2010 and a more complete updating of the database would require significant resources. Given this, it is important to determine the extent to which the database still captures the essence of the policies in place. One possible approach is to check how existing and regularly updated indices on the issue have evolved by exploiting the overlap between the STRI and other indicators capturing services trade restrictiveness in terms of countries, sectors and modes of delivery covered. While this approach could shed some light on recent policy trends and informs us about whether the STRI is still relevant, it is likely imperfect as different databases tend to cover different aspects of policy regimes impinging on services trade.

The Foreign Direct Investment (FDI) restrictiveness index of the Organization of Economic Cooperation and Development (OECD) may provide a good basis for comparisons and projections for the evolution of the STRI in FDI in the three sectors on which this chapter is focused. The OECD FDI regulatory restrictiveness index captures statutory restrictions on FDI in a total of 62 countries and 22 sectors and is available for the years 1997, 2003, and 2006, and the period 2010-2016. The STRI and OECD FDI regulatory restrictiveness index are both available for Jordan, Morocco, Saudi Arabia, and Tunisia.

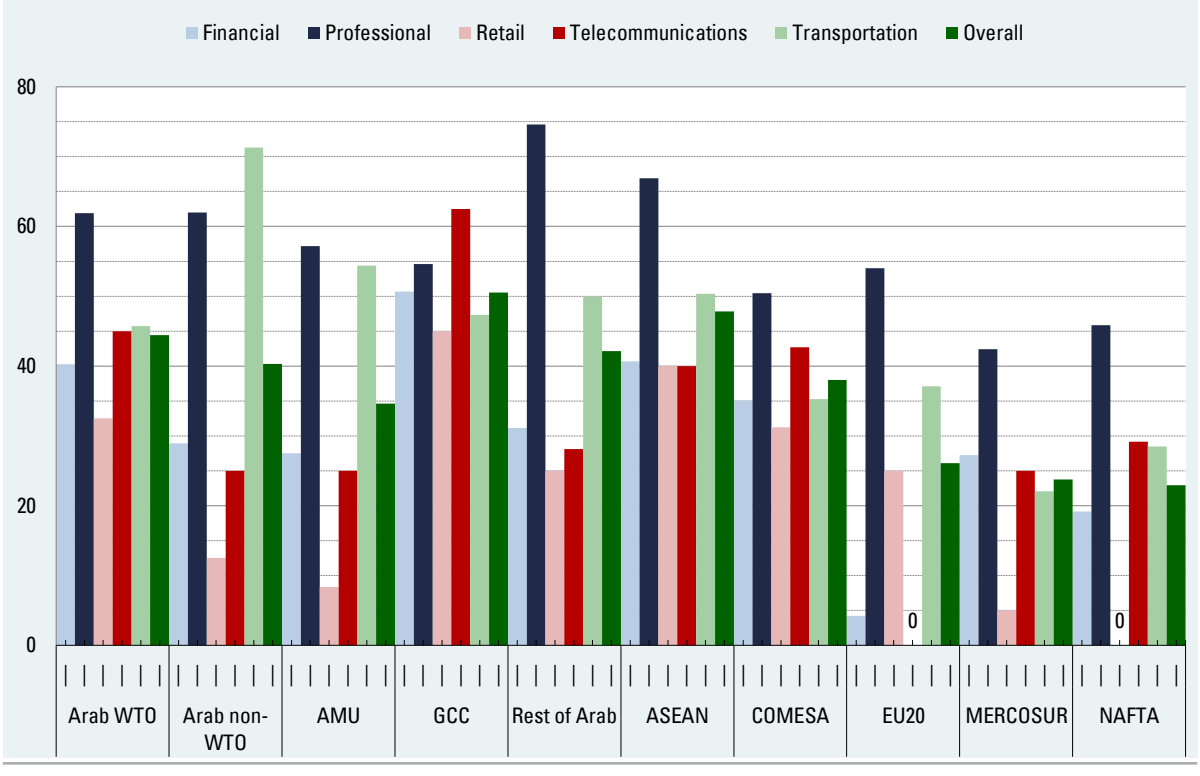
## F. Overall services trade restrictiveness across different regions and in the Arab region

According to the Services Trade Restriction Index (STRI), services trade tends to be more restricted in the Arab region compared to the other major regions and trading blocs across the world, with the notable exception of ASEAN (figure 30). In particular, financial, telecommunication, and, to some extent, transport services in the Arab region are more restricted vis-à-vis developed-economy regions and blocs. Professional services tend to be restricted across all regions and blocs; the Arab region is no exception. Retail services are not particularly closed in the Arab region.

Arab sub-regions are rather heterogonous in terms of the degree of services restrictiveness. GCC countries have rather restrictive regimes, regardless of the services sub-sector. The GCC in fact has the highest overall STRI score among

the comparator regions and blocs. The AMU exhibits a relatively liberal stance in retail, financial and telecommunication services while transport services are among the most restricted in the world. Arab countries that are neither in the GCC or AMU fall in between these two subregions in terms of the restrictiveness of overall services. In these countries, professional and transportation services are among the most restrictive in the world while financial, telecommunication, and retail services are closer to other regions.

**Figure 30.** Service trade restrictiveness by industry across selected regions and blocs

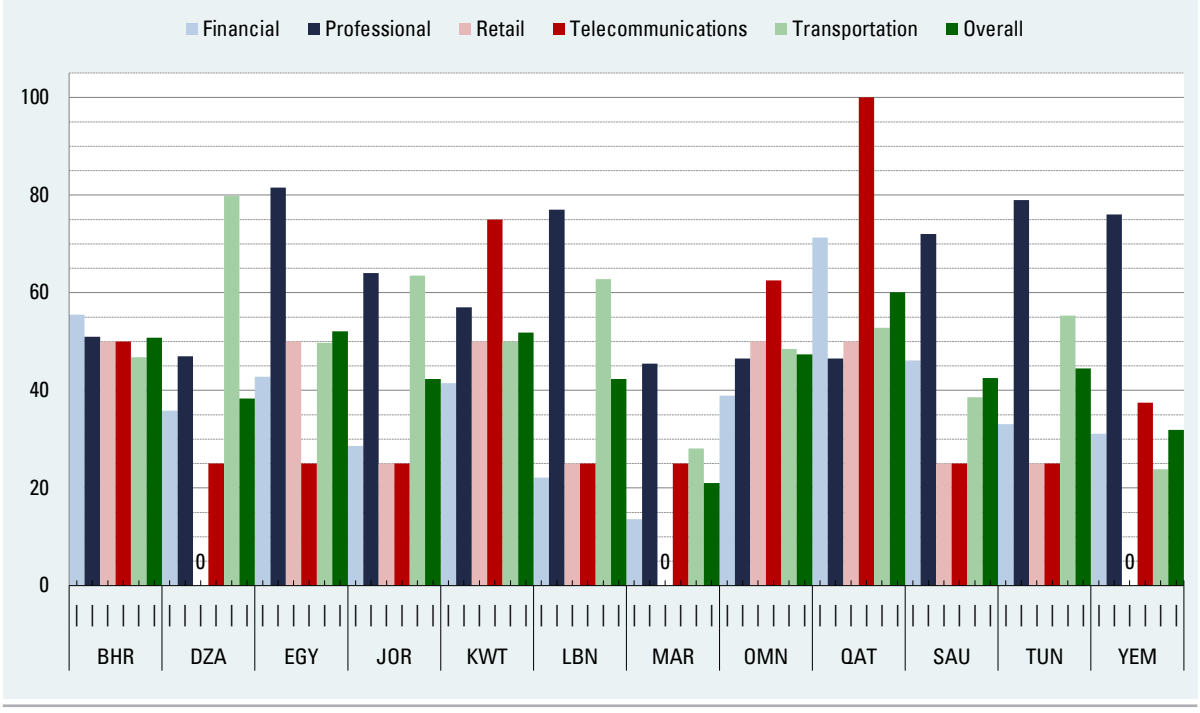



**Source:** Borchert, Gootiiz and Mattoo, 2012.
**Note:** Higher index values indicate a more restrictive stance of policies and regulations, discriminating against foreign services or foreign services providers in the respective sector. The indices for the regions and blocs are simple averages of the countries constituting the region/bloc. The averages are calculated using the information available in the database and therefore may exclude some countries that are normally part of the region or bloc in question. The abbreviations and the list of the countries included in each group are as follows. The Arab region refers to the members of the League of Arab States, 12 of which are represented in the STRI database: Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, and Yemen. The Arab Maghreb Union (AMU) represents Algeria, Morocco, and Tunisia (no data on Libya and Mauritania). The Gulf Cooperation Council (GCC) includes Bahrain, Kuwait, Oman, Qatar, and Saudi Arabia (no data on the UAE). The region 'Rest of Arab' is made up of Egypt, Jordan, Lebanon, and Yemen, namely, Arab countries that are included in the database but not members of the GCC or the AMU. The Association of Southeast Asian Nations (ASEAN) includes Indonesia, Malaysia, Philippines, Thailand, and Viet Nam (no data on Brunei, Cambodia, Laos, Myanmar, or Singapore). The Common Market for Eastern and Southern Africa (COMESA) covers Burundi, the Democratic Republic of Congo, Egypt, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Rwanda, Uganda, Zambia and Zimbabwe (no data on Comoros, Djibouti, Eritrea, Libya, Seychelles, the Sudan, and Swaziland). MERCOSUR includes Argentina, Brazil, Paraguay and Uruguay; and NAFTA includes Canada, Mexico and the United States.

Individual Arab countries differ widely in terms of the degree of restrictiveness, both for services trade as a whole and for the different subsectors (figure 31). Consistent with the regional comparison, individual GCC countries have a more restrictive stance on most services. Morocco, however, has the least restrictive services sector in the region, followed by Yemen and Algeria.

Professional services tend to be the most restricted services subsector in the majority of Arab countries, including Egypt, Jordan, Lebanon, Morocco, Saudi Arabia, Tunisia and Yemen. In Kuwait, Oman and Qatar, telecommunications face the largest barriers to trade. Transportation services are the most restricted in Algeria and financial services in Bahrain.

**Figure 31.** Service trade restrictiveness by industry in the Arab region




**Source:** Borchert, Gootiiz and Mattoo, 2012.
**Note:** Higher index values indicate a more restrictive stance of policies and regulations, discriminating against foreign services or foreign services providers in the respective sector. The indices for the regions and blocs are simple averages of the countries constituting the region/bloc. See figure 30 notes for the list of countries included in different blocs. The EU20 is an artificial entity of 20 EU member States created by World Bank STRD to capture their policies as applicable to non-EU providers. The country codes are three-digit country ISO codes.

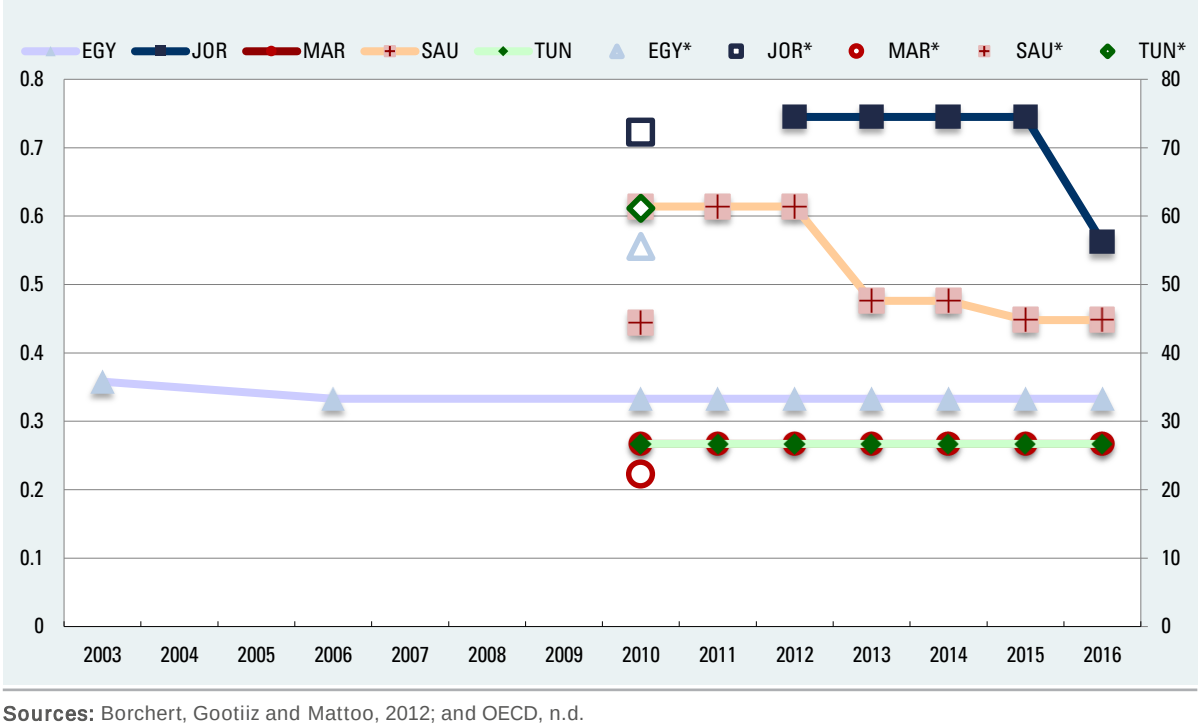
## G. Illustration from three services sectors: the case of transport, telecommunication and financial services in the Arab region

Transport, information and communications technologies, and financial services play a crucial role in the exchange of goods and services. These sectors greatly facilitate physical and temporal exchange and coordination of production and factor use. The technological progress that has been achieved in such services has made possible a greater scale and scope for disintegration of production processes, including the production of for intermediate services (see chapter 2 for a more detailed discussion).

There is also strong empirical evidence corroborating the importance of these sectors as key drivers of economic growth and trade, especially for financial services but also for telecommunications; the fully open basic telecommunications and financial services sectors may raise their growth rates by up to 1.5 percentage points higher than the rest (Mattoo, Rathindran and Subramanian, 2006).[8]

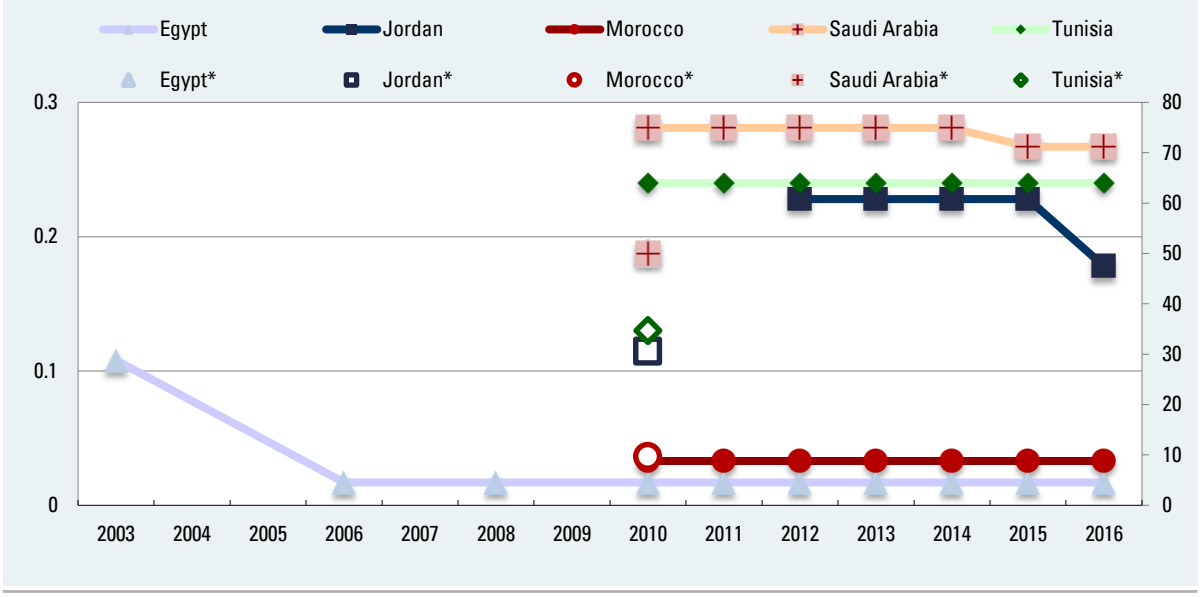
As outlined above, these three subsectors, along with professional services, tend to be among the most restricted in Arab countries. In this respect, all else being equal, the complete liberalization of these sectors could lead to sizable gains in output, productivity, trade and employment for Arab countries.

**Figure 32.** Transport services restrictiveness index (World Bank) in comparison with FDI regulatory restrictiveness index (OECD)



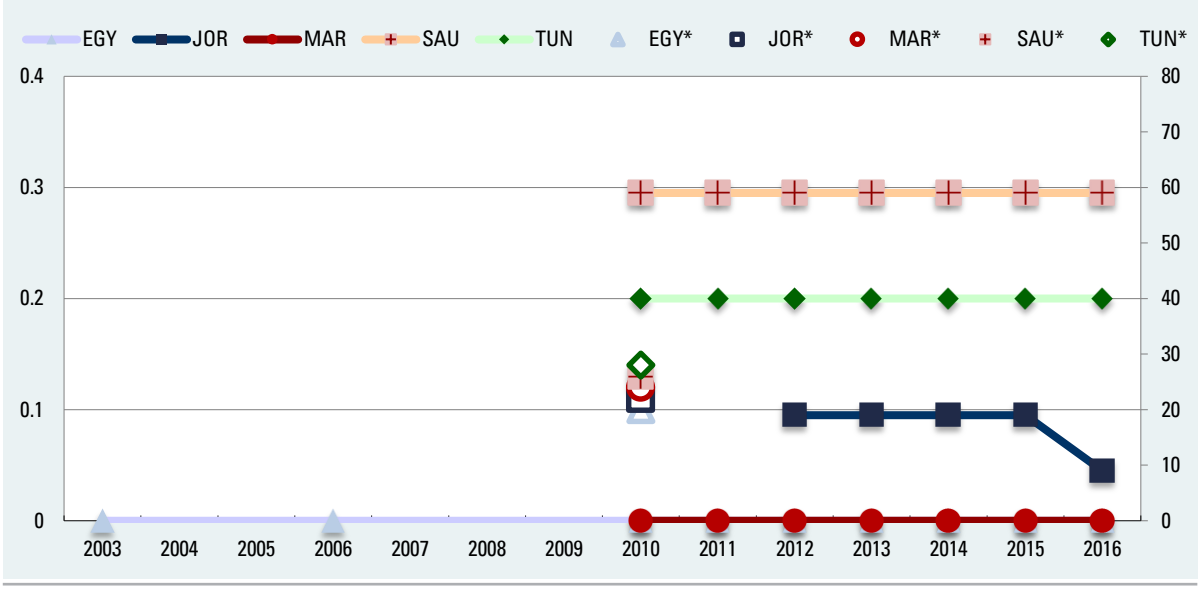

**Sources:** Borchert, Gootiiz and Mattoo, 2012; and OECD, n.d.

**Figure 33.** Financial services restrictiveness index (World Bank) in comparison with FDI regulatory restrictiveness index (OECD)




**Sources:** Borchert, Gootiiz and Mattoo, 2012; and OECD, n.d.
**Note:** The asterisk country values represent World Bank data.

**Figure 34.** Telecommunication services restrictiveness index (World Bank) in comparison with FDI regulatory restrictiveness index (OECD)




**Sources:** Borchert, Gootiiz and Mattoo, 2012; and OECD, n.d.
**Note:** The asterisk country values represent OECD data.

With regard to the establishment of commercial presence in transport services, among the four Arab countries, Jordan and Morocco have the most and least restrictive policy regimes, respectively. For these two countries, transport sector FDI policies are more stringent according to the STRI than according to the OECD FDI restrictiveness index while the opposite holds for Saudi Arabia. In terms of the time profile of the OECD index, Jordan and Saudi Arabia appear to have liberalized their FDI policies in the sector significantly, even though they still have more restrictive FDI regimes than the other two Arab countries.

The correspondence between the indices is rather striking in the case of financial services. The OECD index closely matches the STRI rankings of the Arab countries. Furthermore, according to the OECD index, which shows developments over time, Saudi Arabia and Jordan have both recorded a reduction (marked in the case of Jordan) in financial services restrictiveness during the years 2013-2016.

As opposed to the STRI, the OECD index captures some differences in the stringency of the FDI policies of the four countries in the telecommunications sector and indicates that Saudi Arabia restricts FDI flows in the sector to a great extent, followed by Tunisia, Jordan and Morocco (figure 34). Jordan is the only country that has liberalized its already fairly liberal FDI policies. According to the OECD index, FDI in the sector is fully liberal in Morocco, where the STRI captures some restrictions.

## 1. Transport services

Transport services have important effects on economic, social, and environmental outcomes.[9] The availability of efficient and high-quality transport services, or lack thereof, has consequences for firm decisions on production (including location), input use, and trade; more broadly, it may also influence the structural transformation of economies (Van den Berg and De Langen, 2014).

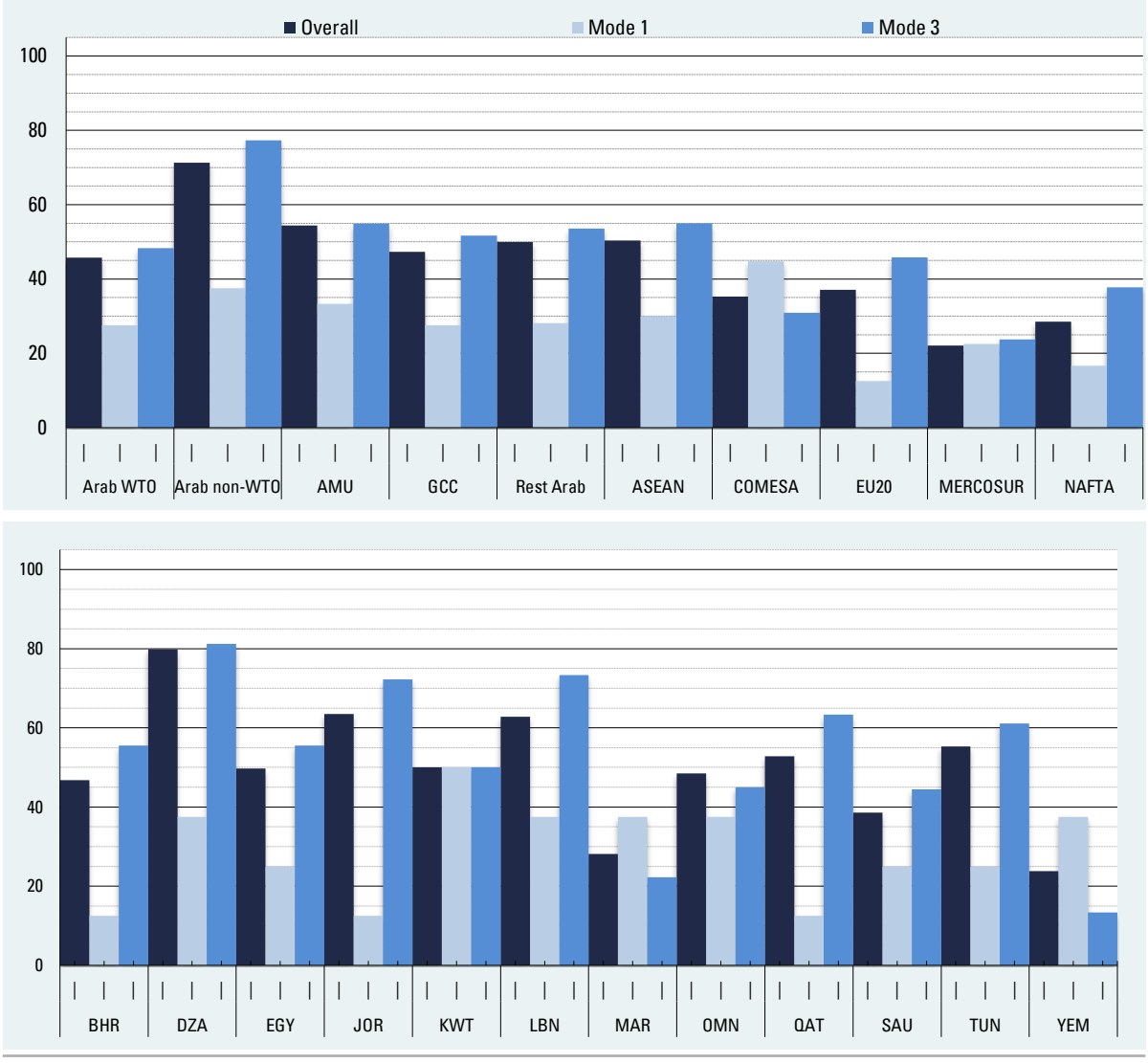
The availability of efficient transport services counter market fragmentation and boost productivity, shifting an economy to a higher growth equilibrium along the lines envisaged by the Big Push Theory of Rosenstein-Rodan (1943), further developed by Agénor (2010). There is evidence that, at the macroeconomic level, transport infrastructure may have a significant positive impact on economic growth. For instance, Calderon, Moral-Benito and Servén (2015) document this link. Transport services may have an important bearing on the size of input and product markets that firms can access, the competitive pressures that they face, and the prices, quality, and range of products available to consumers and producers.

The fact that the Arab region stands astride three continents should pave the way for its participation in GVCs. The region's transport infrastructure and connectivity may be one of factors that prevents it from reaping the full benefits of its favorable geographical position by greater international trade volumes in general and GVC engagement in particular (ESCWA, 2018).

Poor infrastructure and transport capabilities and high transport cost are among the constraints that face value chain development in the Arab region. The limited variety of transportation services leads to overreliance on one mode and vulnerability if this mode is interrupted. To exemplify, heavy reliance on road transport to exchange agriculture products among Arab countries and a lack of competitive alternative means interruption of read transport

poses a serious threat to stability of production, employment, and trade. The closure of the Nassib border crossing between Jordan and the Syrian Arab Republicin2015 is an example of such a disruption, leading to huge losses for farmers in the Syrian Arab Republic and Lebanon exporting to GCC countries.

**Figure 35.** Transport services restrictiveness index by mode across selected regions, blocs and Arab countries




**Source:** Borchert, Gootiiz and Mattoo, 2012.
**Note:** Higher index values indicate a more restrictive stance of policies and regulations, discriminating against foreign services or foreign services providers in the respective sector. The indices for the regions and blocs are simple averages of the countries constituting the region/bloc. See note under figure 30 for the list of countries included in different blocs. The EU20 is an artificial entity of 20 EU member States created by World Bank STRD to capture their policies as applicable to non-EU providers. The country codes are three-digit country ISO codes.

Trade in transport services appears significantly more restricted in the Arab region than other regions and blocs, with the exception of ASEAN. Compared to the cross-border trade in transport services, policies related to establishing commercial presence in the transport services sector (mode 3) are more restrictive in all Arab subregions (AMU, GCC and the rest of Arab countries). In fact, while restrictions tend to be less severe than in the Arab region, the establishment of commercial presence tends to be rather restricted in most regions and blocs considered, with the notable exception of MERCOSUR. As opposed to other blocs, instead of restricting commercial presence, COMESA countries appear to restrict cross-border trade of transport services.

Individual Arab countries vary greatly in terms of the details of their policies (figure 35). Overall, among the 12 countries with data on trade in transport services, Algeria has the most severe restrictions, followed by Lebanon and Jordan, while Yemen and Morocco have few restrictions. Policies limiting commercial presence tend to be the dominant aspect of restriction across Arab countries. Morocco and Yemen have the most liberal rules for the establishment of commercial presence. Bahrain, Jordan and Qatar, however, have the least restricted cross-border trade in transport services.

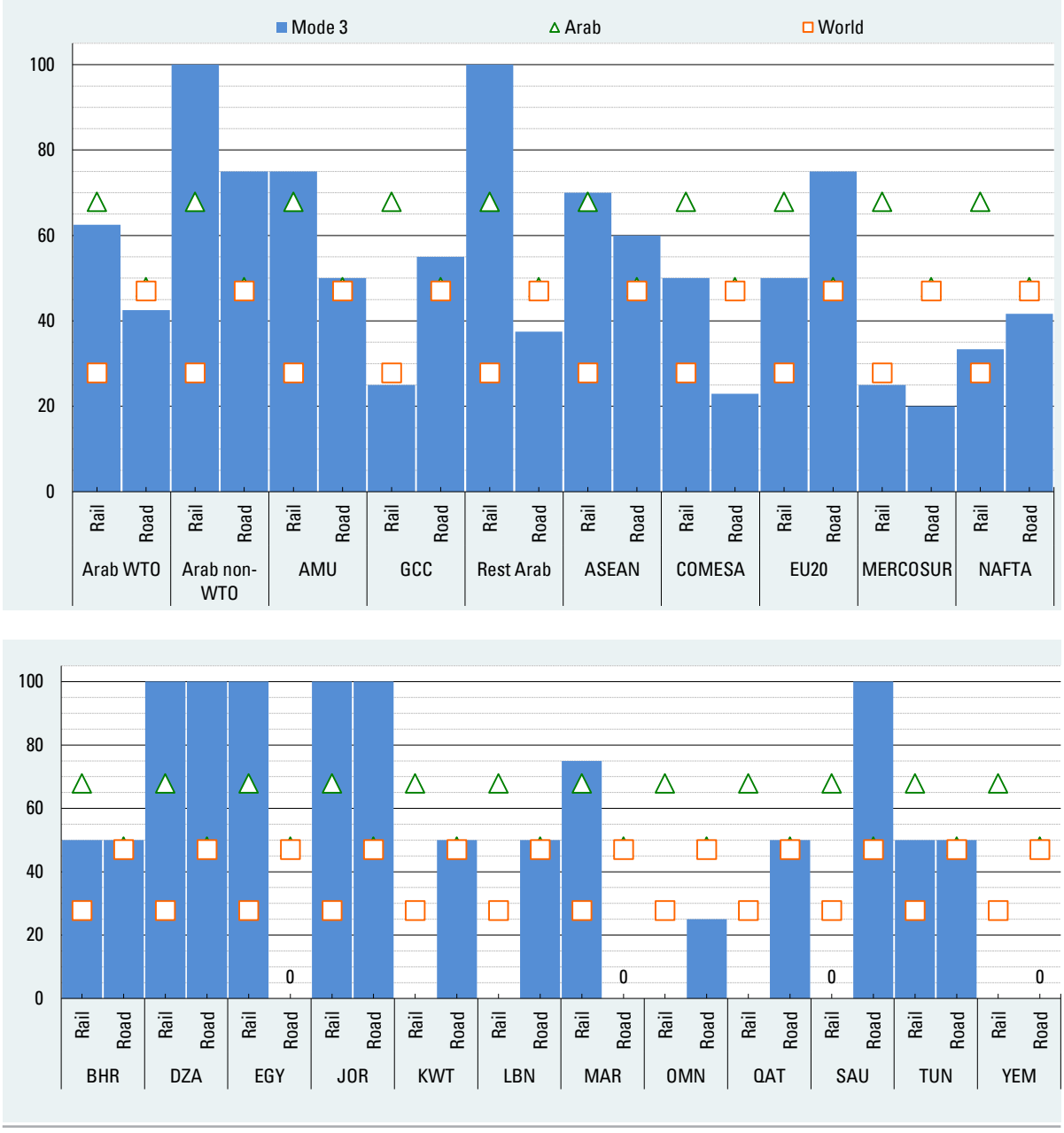
## 2. Road and rail transport

While maritime and air transport are vital for trade across regions, road and rail transport are the dominant means of transportation for trading between adjacent territories or countries. The choice of transportation mode is determined by various factors, including the type of goods that are transported, the distance and time to reach the destination, available transport infrastructures and services, the technology involved, and the transport cost.

Road and rail transport are quite important for the Arab region. According to the STRI, though not the most restricted, trade in road and rail transport services remains constrained in the Arab region. Among other regions, the EU and ASEAN have more restrictive trade policies for road transport and ASEAN for rail (figure 36). Establishing commercial presence in rail transport services is rather restricted in the Arab region, excluding the GCC.[10]

Individual Arab countries exhibit major differences in terms of the restrictiveness policies regarding establishing commercial presence in road and rail transport services, which is identified in the STRI database as the most relevant mode of supplying these services (figure 36). Oman, Kuwait, Lebanon, and Yemen have no operational rail networks. Algeria and Jordan have closed road and rail freight services sectors. Saudi Arabia has a fully open rail freight services sector, but the road freight services sector is closed. The opposite is true for Egypt and Morocco, where road freight services trade is fully liberal, but rail freight services trade is rather restricted (even closed for the case of Egypt). Yemen appears to be fully open to foreign road freight services operators.

**Figure 36.** Road and rail freight services restrictiveness index by mode across selected regions, blocs and Arab countries




**Source:** Borchert, Gootiiz and Mattoo, 2012.
**Note:** Higher index values indicate a more restrictive stance of policies and regulations, discriminating against foreign services or foreign services providers in the respective sector. The indices for the regions and blocs are simple averages of the countries constituting the region/bloc. See note under figure 30 for the list of countries included in different blocs. The EU20 is an artificial entity of 20 EU member States created by World Bank STRD to capture their policies as applicable to non-EU providers. The country codes are three-digit country ISO codes.

## 3. Maritime transportation

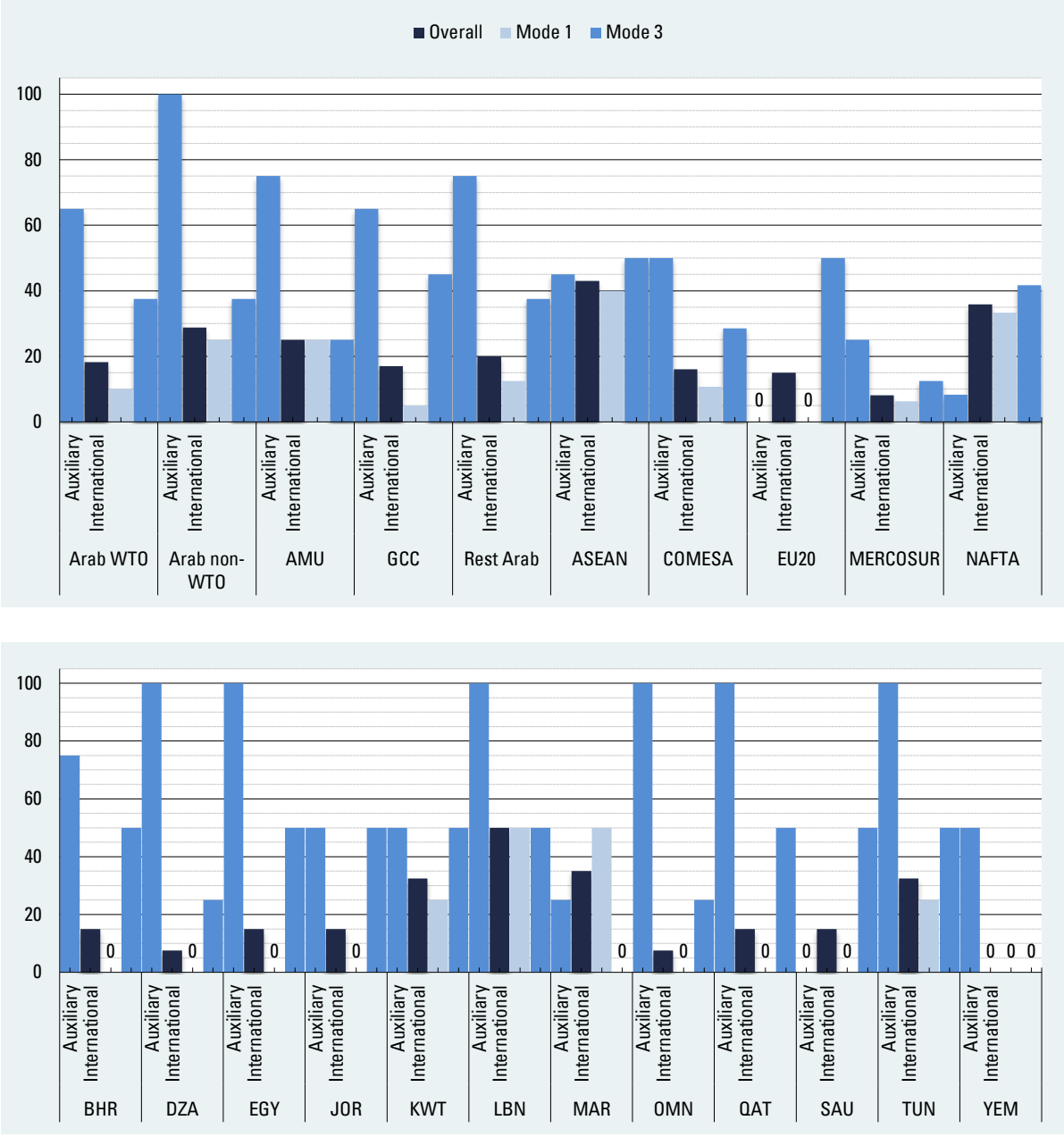
Around 80 per cent of global trade by volume, and over 70 per cent of global trade by value are carried by sea and are handled by ports worldwide (WTO, 2015). Connectivity to international maritime transport networks is an important enabler of participating in international trade in general and in GVCs in particular (ESCWA, 2018).

Despite its strategic location and its high dependence on trade in natural resources (most importantly oil), the Arab region's connectivity to global shipping networks remains moderate. According to the Liner Shipping Connectivity Index (LSCI), which is a major indicator of connectivity to maritime networks, most Arab countries are weakly connected even though some, such as the United Arab Emirates, Egypt, Morocco, and Saudi Arabia, have managed to improve their maritime connectivity.[11]

Trade in maritime transport services is rather restricted in the Arab region (figure 37). Compared to other regions, blocs and world averages, the Arab region as a whole, the AMU, the GCC and the rest of the Arab countries as a group have much more restrictive maritime transport services policies and regulations. This is driven mainly by unduly restrictive policies and regulations toward establishing presence in auxiliary maritime services in Arab countries, as opposed to international maritime transport services, which are largely in line with the world average.[12] This pattern is qualitatively rather similar across the three Arab subregions, with the GCC being relatively more closed and the AMU being fairly open to FDI in international maritime services. The cross-border trade of international maritime shipping services is relatively more open than the rules for establishing commercial presence in the sector in the Arab region as well as and most other regions and blocs, excluding ASEAN and NAFTA, where cross-border trade is almost as restrictive as FDI.

Most Arab countries tend to have rather restrictive policies and regulations in maritime auxiliary services trade (in mode 3 as the most relevant mode for the sector) but trade in international maritime shipping services is fairly open (figure 37). Algeria, Egypt, Lebanon, Oman, Qatar, and Tunisia have a completely closed, Jordan, Kuwait, Yemen semi-open, Morocco a fairly open, and Saudi Arabia an open maritime auxiliary services sector. In international maritime shipping services trade, Yemen stands out with fully liberal policies and regulations. Algeria, Bahrain, Jordan, Oman, Qatar, and Saudi Arabia are fairly open in the trade of international maritime shipping services, though in the majority of these countries, FDI policies in the sector are somewhat restrictive. Lebanon, Morocco and Tunisia, however, have more closed policy regimes in the sector and their stance is mainly driven by restrictive FDI policies, with the exception of Morocco that is virtually open to FDI international maritime shipping services.

**Figure 37.** Maritime transport services restrictiveness index by mode across selected regions, blocs and Arab countries



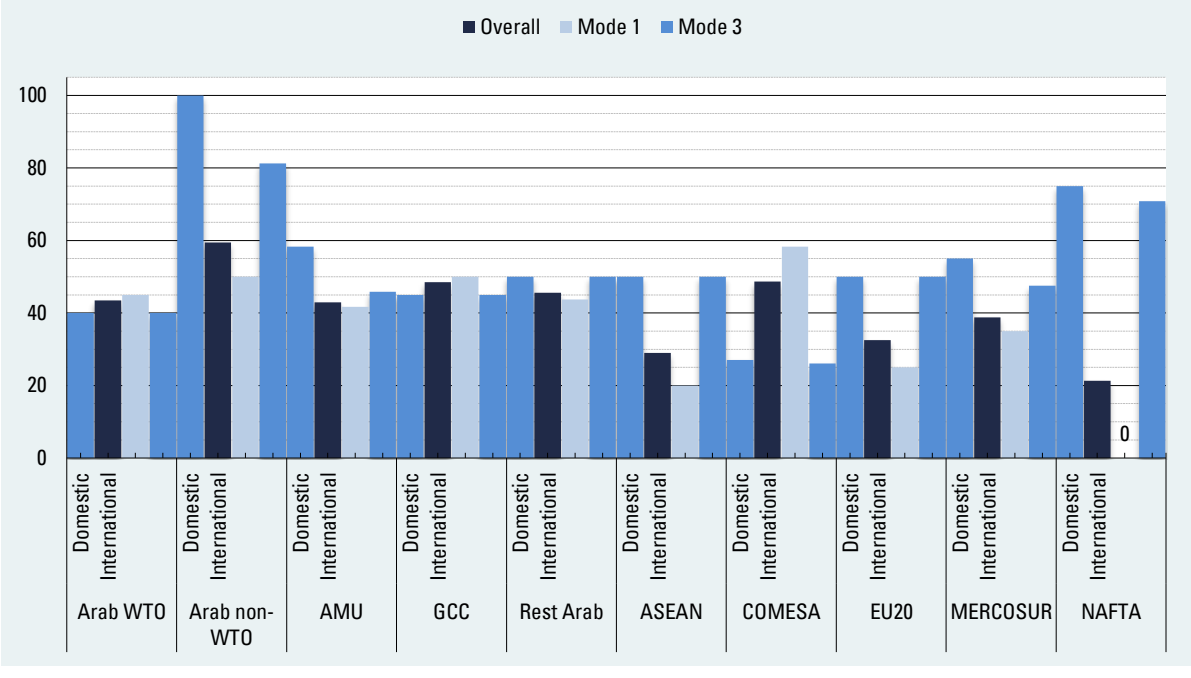

**Source:** Borchert, Gootiiz and Mattoo, 2012.
**Note:** Higher index values indicate a more restrictive stance of policies and regulations, discriminating against foreign services or foreign services providers in the respective sector. The indices for the regions and blocs are simple averages of the countries constituting the region/bloc. See note under figure 30 for the list of countries included in different blocs. The EU20 is an artificial entity of 20 EU member States created by World Bank STRD to capture their policies as applicable to non-EU providers. The country codes are three-digit country ISO codes.

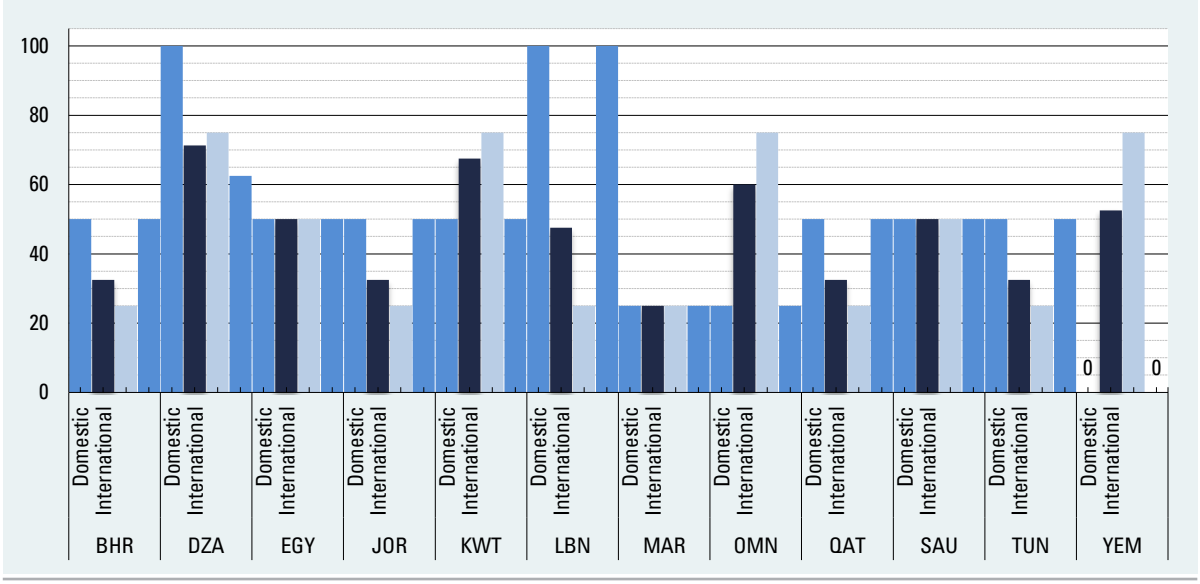
## 4. Air passenger transport services

The STRD also captures the restrictiveness of domestic and international air passenger transport services trade.[13] Air passenger transport services trade restrictions show relatively less variation across regions and trading blocs (figure 38). The Arab region exhibits a restrictive stance in both domestic and international passenger transport service trade, compared to the world average, as well as the EU20 and NAFTA, which represent more developed counterparts. The semi-open policy regime in the Arab region has similar levels of restrictiveness in FDI and cross-border trade policies and across Arab subregions.

By contrast, individual Arab countries differ widely in terms of the intensity and choice of the service delivery mode of restrictions. Restrictions on the cross-border trade of international passenger transportation trade are high in several Arab countries, including Algeria, Kuwait, Oman, and Yemen and, in the case of Algeria and Kuwait, they are matched by significant restrictions on FDI in the sector. FDI restrictions in both domestic and international passenger transport services are somewhat moderate, with most Arab countries being semi-open. Morocco stands out as a country that is fairly open to air passenger transport services providers. In this area, Algeria and Lebanon do not allow FDI in domestic services and Lebanon has also banned international services.

**Figure 38.** Air transport services restrictiveness index by mode across selected regions, blocs and Arab countries






**Source:** Borchert, Gootiiz and Mattoo, 2012.
**Note:** Higher index values indicate a more restrictive stance of policies and regulations, discriminating against foreign services or foreign services providers in the respective sector. The indices for the regions and blocs are simple averages of the countries constituting the region/bloc. See note under figure 30 for the list of countries included in different blocs. The EU20 is an artificial entity of 20 EU member States created by World Bank STRD to capture their policies as applicable to non-EU providers. The country codes are three-digit country ISO codes.

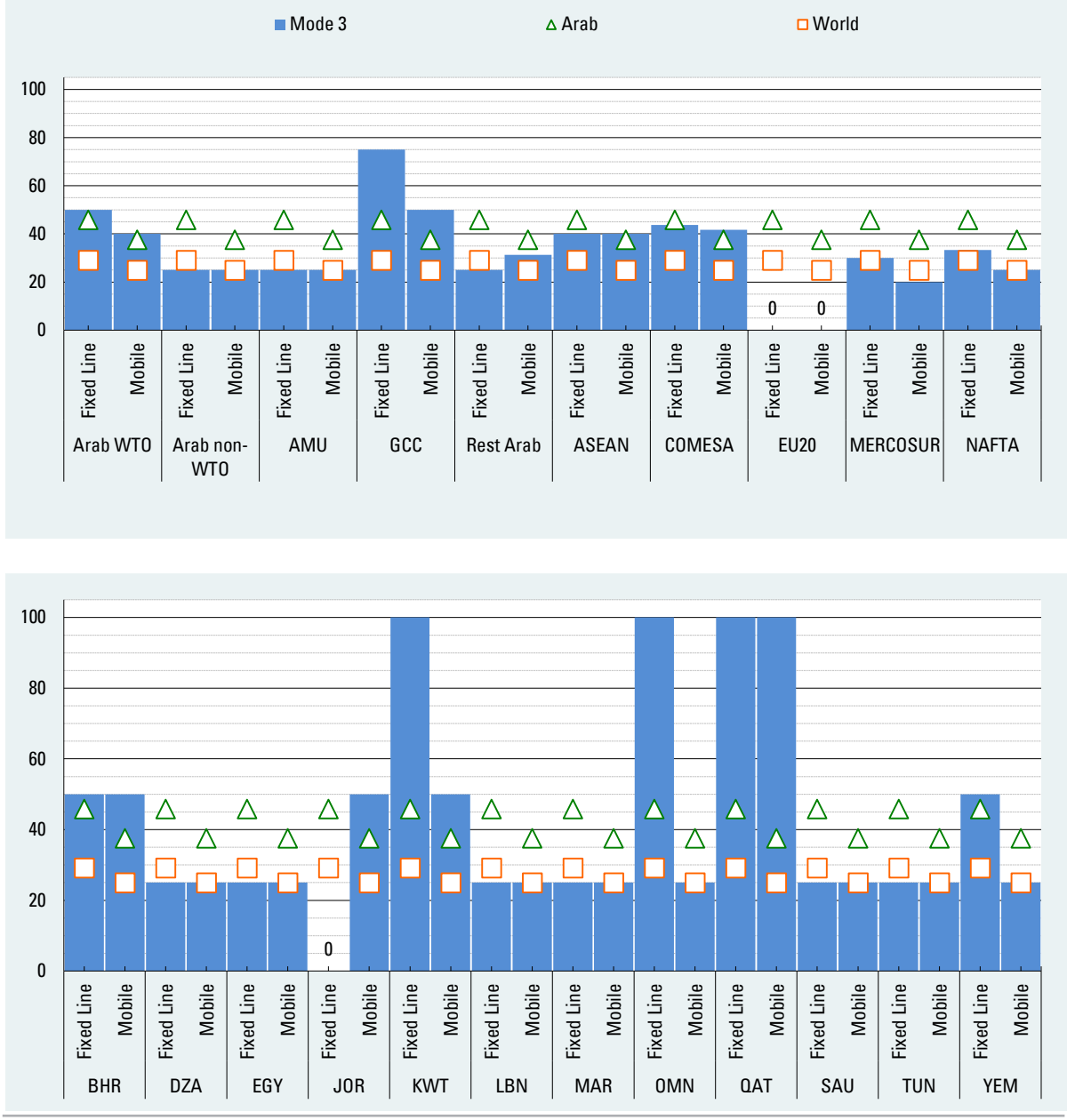
## 5. Telecommunication services

The telecommunications sector has been subject to successive privatization and liberalization efforts around the world. As a result, most regions and trading blocs across the world have a fairly open stance on FDI in the telecommunications sector (figure 39). The GCC is a clear outlier, raising the average restrictiveness of the Arab region. By contrast, for this sector, the FDI restrictiveness of non-GCC Arab subregions is below the world STRI average.[14]

This variation across Arab subregions largely describes the restrictiveness of FDI policies in the sector, though the pattern is not uniform across all countries in a given subregion. For instance, for FDI in fixed-line telecommunication services, the regimes of Kuwait, Oman and Qatar are fully closed, that of Bahrain semi-open, while the regime of Saudi Arabia is fairly open. Yemen, a non-GCC country, matches Bahrain in terms of the restrictiveness of FDI policies in fixed-line telecommunication services. Jordan is the only Arab country that is fully open to FDI in fixed-line telecommunication services. The remaining Arab countries are rather open and share the same STRI score in the fixed-line services sector.

Arab countries have relatively less restrictive FDI policies in the mobile communication services sector. Qatar is the only Arab country that is fully closed to FDI in the sector, making Qatar closed to FDI flows in both fixed-line and mobile services. Following Qatar in terms of restrictive FDI policies in mobile services are Bahrain, Jordan and Kuwait, which all are semi-open. The remaining Arab countries have relatively liberal regimes in place in the sector.

**Figure 39.** Telecommunication services restrictiveness index by mode across selected regions, blocs and Arab countries




**Source:** Borchert, Gootiiz and Mattoo, 2012.
**Note:** Higher index values indicate a more restrictive stance of policies and regulations, discriminating against foreign services or foreign services providers in the respective sector. The indices for the regions and blocs are simple averages of the countries constituting the region/bloc. See note under figure 30 for the list of countries included in different blocs. The EU20 is an artificial entity of 20 EU member States created by World Bank STRD to capture their policies as applicable to non-EU providers. The country codes are three-digit country ISO codes.

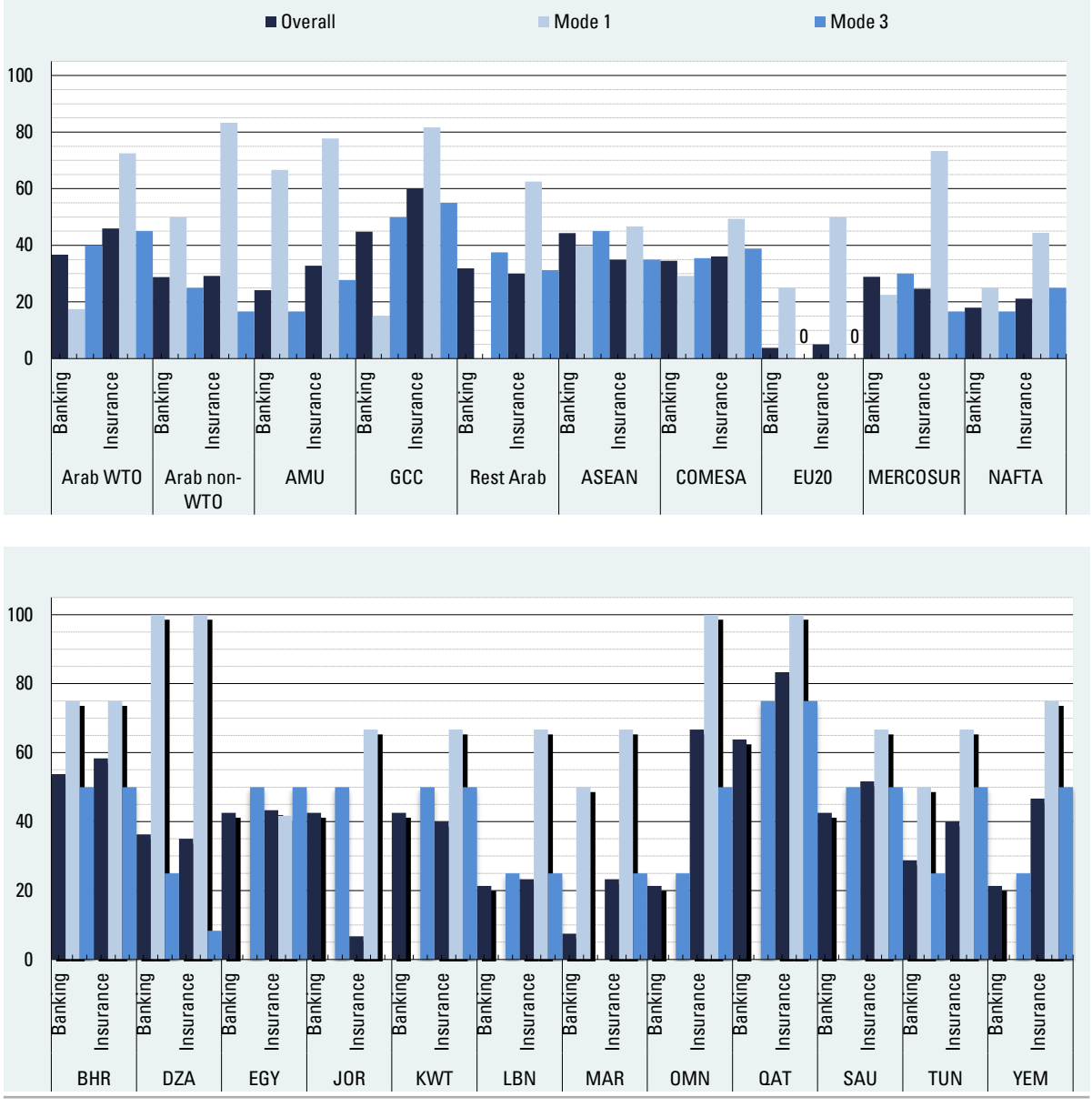
## 6. The financial sector

Financial services occupy an important place in an economy, facilitating economic transaction inter-temporally and mediating the flows of saving and investment. As far as the sector is concerned, the STRD provides detailed information on banking and insurance services. The restrictiveness of policies and regulations governing the trade of financial services differs markedly across different trading blocs and regions (figure 40). Regions or blocs consisting of developing economies tend to have more restrictive policies and regulations than their developed counterparts but there is considerable variation within this group.[15] Arab countries generally have more closed policy regimes than other regions and blocs in both banking and insurance services, while trade in insurance services tend to be much more restricted than that in banking services. While insurance services providers face high barriers in most parts of the world, the barriers that they face are particularly high in the Arab region, and more specifically in the GCC and AMU. While not as restricted as in the Arab region, the banking and insurance services sectors in ASEAN are also relatively closed. The EU20, on the other hand, stands out as having the least restrictive FDI policies in banking and insurance services, though the cross-border trade in these services is more constrained and closer to the world average in terms of STRI scores. NAFTA also has an open regime in financial services, including at the sub-sector level, with its STRI score below the respective world averages.

The most restrictive policy regime among Arab countries in financial services trade is for Qatar, followed by Bahrain. Both banking and insurance services trade is rather restrictive in these countries. The other GCC countries included in the database – Kuwait, Oman, and Saudi Arabia – the stance is largely driven by policies and regulations in insurance services; their policies are also restrictive, but less so than for so than those of Qatar and Bahrain. At the other end of the spectrum in the Arab region, Morocco has rather liberal policies in banking services trade (particularly regarding FDI). Lebanon also has a fairly liberal financial services trade regime. Yemen, Jordan, and Algeria represent the countries in the middle group among Arab countries in terms of the restrictiveness of financial services trade, but they differ in terms of the restrictiveness of policies and regulations applying to the modes of delivery and sub-sectors. For example, Algeria and Yemen have rather high barriers to the cross-border trade of insurance services while FDI in insurance services and trade in banking services are not as restricted. Egypt, on the other hand, exhibits similar levels of restrictiveness in banking and insurance services while restrictions on FDI in both sub-sectors plays a larger role than in an average Arab country.

It is possible to glean the key restrictions and policy levers from the database (see annex II). The cross-border trade of banking services (both acceptance of deposits and lending by foreign banks) in the great majority of Arab countries is subject to little or no barriers. The exceptions are Algeria, Morocco and Tunisia. Algeria allows neither lending to domestic consumers nor the acceptance of deposits by foreign banks; the latter is also the case in Morocco. Tunisia allows both types of operations, but certain restrictions apply. For instance, only domestic firms that conduct business abroad are allowed to have accounts abroad and export revenues must be repatriated.

**Figure 40.** Financial services restrictiveness index by mode across selected regions, blocs and Arab countries




**Source:** Borchert, Gootiiz and Mattoo, 2012.
**Note:** Higher index values indicate a more restrictive stance of policies and regulations, discriminating against foreign services or foreign services providers in the respective sector. The indices for the regions and blocs are simple averages of the countries constituting the region/bloc. See note under figure 30 for the list of countries included in different blocs. The EU20 is an artificial entity of 20 EU member States created by World Bank STRD to capture their policies as applicable to non-EU providers. The country codes are three-digit country ISO codes.

## H. Conclusions

Services account for most of economic activity in developed and developing economies alike. This is also true for the Arab region, even though the prominence of the services sector is quite diverse at the country level, ranging from GCC countries and Libya, in which extractive industries are central to economic activity and services are relatively marginal, to diversified Mashreq countries, which exhibit the features of more advanced mature economies. Nevertheless, the services sector has proved to be a resilient engine of economic growth in the wake of the global financial crisis and, considering the scope for the services sector claiming even larger shares of output and employment, the catching up process implies favourable prospects for most Arab economies.

Many Arab countries may face the challenge of avoiding falling into the middle-income trap. In view of the linkages of the services sector with the rest of the economy, services sectors have an immense potential to help countries avoid this trap by boosting competitiveness, diversification and structural transformation.

Another dimension of the services sector is that, for some of its subsectors (such as telecommunications, transportation, finance, health, and education) regionally concerted efforts can set in motion a virtuous circle. Emulating the experiences of more integrated regions, notably the EU, could bring substantial benefits to consumers and producers.

Like goods trade, services trade is a major channel through which foreign providers can contest domestic markets. By challenging domestic services providers and allowing the diffusion of technological, organizational and managerial best practices, contested services markets are more likely to offer a wide range of high-quality and cost-efficient services tailored to the needs of demanders, both domestic and foreign. Assessing the severity of barriers and measures that constrain services trade, however, is a complex undertaking given the sheer breadth of policies and regulations that are involved. National, regional and international institutions need to make additional efforts to make policy-relevant and timely data available.

This chapter draws on the STRD of Borchert, Gootiiz and Mattoo (2012) on the grounds that it provides a detailed account of policies and regulations restricting services trade in a relatively broad set of Arab countries, 12 in total, with a disaggregated treatment of services sectors. Nevertheless, the database is for 2010 and therefore somewhat dated. In addition, it only captures policies applied on most-favoured-nation basis, in other words, not reflecting regional preferential treatment. The policy debate would greatly benefit from a dataset that is updated on a regular basis and more comprehensive, covering all Arab countries and relevant policies. Among various possible applications of such data, it would make it possible to monitor policy changes and quantify the effects of alternative policy scenarios for services trade, thus helping to guide policymaking.

# 4. Economy-wide and Cross-cutting Impacts of Promoting Trade in Services in the Arab Region in the Context of PAFTA and DCFTA

# 4. Economy-wide and Cross-cutting Impacts of Promoting Trade in Services in the Arab Region in the Context of PAFTA and DCFTA

## A. Introduction

As highlighted in the previous chapters, services are becoming much more pertinent in economic and social development. Their role is even more pronounced in GVCs, which in recent times have become the most important driver of FDI inflows, exports, and related production and employment. Given this, the economy-wide role of services in the context of economic transformation needs to be carefully investigated.

This chapter presents the results of an analysis of the impact of alternative paths for services trade liberalization in selected Arab countries. It considers the benefits and the costs that would accrue to different countries in the Arab region if they were to integrate services in their preferential trade agreements, either unilaterally or in the context of PAFTA or with the EU in the context of the DCFTAs that are under negotiation between the EU and several Arab countries. Various techniques and tools have been developed and used for the first time to assess some potential scenarios for integrating trade in services. More specifically, the set of simulations are designed to assess the approximate impacts of services trade liberalization under PAFTA and DCFTA on FDI inflows, employment by gender, poverty, and income distribution, and Green House Gas (GHG) emissions.

Assessing the impact of policies that have a wide range of economic and social effects is a challenging task. We use a package of tools including econometrics techniques, social accounting matrix (SAM) multipliers computations, and general equilibrium models. The general equilibrium models are used because they provide a comprehensive framework that includes most of the linkages and consider both direct and indirect (second-round) effects. At the same time, the information that underlies this analysis (including assumptions and the workings of the different trade barriers of interest) is often weak or difficult to verify. Given this, we rely on complementary tools. Econometric analysis is used to measure the effects of services trade barriers on FDI in services sectors and the rest of the economy. For the first time for the Arab region, this analysis uses the new global database that addresses trends and structure of FDI in the Arab region. The database, which was prepared jointly with the Arab Export Guarantee Corporation, makes it possible to identify barriers the removal of which may be crucial if a country wishes to attract more FDI in services and other sectors.

However, assessing the impact of services trade liberalization is not an easy task. This chapter represents a first step in ESCWA's strategy to measure the economic, social and environmental effects of trade integration scenarios on Arab economies. The second step will be to trace the effects of ongoing negotiations on trade liberalization in the region and with the rest of the world and to identify policies that strengthen their positive impact and mitigate negative effects with respect to sustained economic and social development in the Arab region. Given this, this chapter addresses the impact of different liberalization scenarios on aggregate household welfare, production and trade in different sectors, employment and wages (including gender effects), as well as the level of GHG emissions. As part of the ESCWA strategy, future analyses will, in addition, address how trade policy may be used as tool to enhance health, education, job quality, and environmental management (UNDP, 2011).

## 1. Priorities and challenges on trade in services negotiations

It is not possible to connect to GVCs without well-functioning transport, logistics, finance, communication, and other business and professional services that make it possible to move goods in an efficient manner and coordinate production along the value chain.

For example, the Swedish machine tool firm Sandvik Tooling makes use of over 40 different types of services in the various stages of production, developing and marketing of its products, accounting for about half of the services sectors covered in the GATS. There is a close relationship between services and intangible assets, which enhances productivity without taking the form of physical capital. In a case study of a suit jacket for men, which is made in China and exported to the United States, where it is sold for $450, it is found that only 9 per cent of the sales price can be traced to direct manufacturing costs. The remaining 91 per cent reflect the costs of services, intellectual property, profits, and other 'invisibles' which are difficult to quantify (OECD, WTO and World Bank Group, 2014). As shown in chapters II and III, the most important services (from a cost perspective) tend to be distribution and transport services (which provide the necessary links in supply chains) and financial and business services (which improve the efficiency of goods production).

It is critical that current efforts to enhance PAFTA and DCFTA respond to this new reality by promoting a business environment that makes Arab countries attractive for the location of such services tasks and, more broadly, by creating an economic and social environment that facilitates GVC participation. Among other things, harmonization of standards, which may be part of preferential trade agreements, may be crucial for the formation and location of GVCs. If the costs of regulatory compliance are too high, it may no longer be profitable to include firms in a country in GVCs. In other words, harmonization and mutual recognition of standards may create opportunities to reduce trade costs so that firms and consumers can take better advantage of the economies of dispersed international production.

Not all developing regions have shown equal interest or success in attracting GVCs. Here one finds a significant and puzzling disconnection between regional patterns in trade agreements and trade practice. Some Arab countries are especially active in the negotiation of trade

agreements on a regional and also extraregional basis. Compared with ASEAN countries, the agreements negotiated by Egypt, Tunisia, Jordan, and Morocco (including free-trade agreements (FTAs) with the EU, Turkey, members of the European Free Trade Association, and the United States) are greater in number and cover a more diverse range of partners.[16] In addition, they cover a wider range of issues and entail deeper commitments.[17] However, when it comes to actual participation in GVCs, Arab countries lag both in relative terms and compared to Asian countries (chapter 2). However, in recent years, some Maghreb countries have started to catch up. Among all Arab countries, Tunisia has the highest share of intra-industry trade (40 per cent of its total trade), followed by Morocco and the United Arab Emirates. In addition, information and communications technology (ICT) intra-industry trade has recently grown rapidly in Egypt and Jordan. However, in most Arab countries, manufacturing is mostly an assembly-type activity directed at domestic markets as opposed to integration into GVCs. The only countries in the region with a significant share of components in their total exports are Tunisia and Morocco (chapter 2). In this regard, services are offering a vehicle for diversification – recent trends point to growing importance of telecommunications in Kuwait, health services in Tunisia and Jordan, port and ICT services in Dubai, and call centres in Morocco and Tunisia.

A questionnaire on aid-for-trade conducted jointly by the OECD and the WTO in 2013 shows differing perceptions of distinct stakeholders as to the challenges faced in entering or improving connectivity to GVCs. Figure 41 reports the views of private operators in recipient countries. Suppliers from recipient countries all ranked lack of access to finance (and in particular trade finance) as the main obstacle preventing them from entering, establishing, or moving up value chains. They also cited transportation and shipping costs, inadequate infrastructure and regulatory uncertainty (often tied to a complex business environment) as major obstacles, together with a lack of labour force skills and issues related to standards compliance.

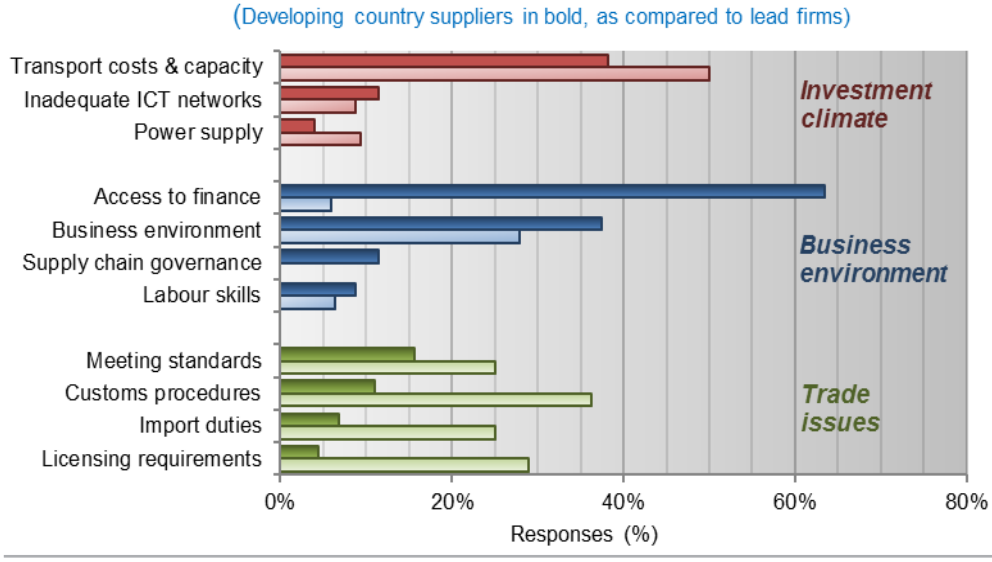
The ability of firms and countries to participate in GVCs are greatly affected by the quality of physical infrastructure (including roads, ports and airports) and the efficiency with which it is operated. In a world where just-in-time delivery is the norm, and in which transit is rapid and storage is expensive, time is money. For products ranging from electronics (which quickly may become obsolete) to fruits and vegetables (which are perishable) to apparel (which is seasonal and subject to the whims of fashion), a day's delay may be equivalent to a tariff of 1 per cent or more (OECD, WTO and World Bank Group, 2014). In most Arab countries, excluding countries in conflict, the average delay for the transport of goods exceeds 25 days, which may be compared to a world average of merely 5 days, meaning that the additional costs for trade operators are dramatic. Furthermore, the delays are often unpredictable. Together, inflated costs and uncertainty inhibit the ability of a country to participate in GVCs.

In fact, the ability of Arab countries to engage in trade may be determined more by the quality of port facilities (sea and air) than by the types of preferential access that they might enjoy in different markets (for example due to the PAFTA or a DCFTA). Reliable and cost-competitive infrastructure promotes both trade linkages and FDI. Gaps in the provision of infrastructure make production in Arab countries less competitive,

something that, through a variety of channels, reduces investment, production and incomes. Given this, Arab countries need to find ways of raising the levels and efficiency of infrastructure investment, including improved public infrastructure policies. However, it is also crucial to make sure that available infrastructure is used efficiently. Using the World Bank's Logistics Performance Index, Arvis, Raballand and Marteau (2012a) show convincingly that logistics or trade services are more important for limiting the costs of being landlocked than investing massively in infrastructure and neglecting the functioning of logistics services (Hoekman et al., 2010). They point out that more than half of the time it takes to transport cargo from the port to the hinterland is spent in ports. This is because volumes are low, facilities are not operated competitively, logistics are poorly organized, storage facilities are inadequate, charges for storage are high, and port management (usually a government agency) does not have adequate incentives to speed up the process (Raballand et al., 2012b). Nordas, Pinali and Grosso (2006) arrive at a similar conclusion.

As noted above, independently of their configuration (bilateral, regional, plurilateral, or multilateral), trade agreements are critical to GVCs participation. They are also a means for transforming autonomous unilateral reforms into irreversible, enforceable and legally binding commitments. The importance of this anchoring was demonstrated by what did not happen during the financial crisis of 2008-2009, when commitments made in the WTO prevented countries from backsliding into protectionism.

**Figure 41.** Barriers firms face in entering value chains – private sector views




**Source:** OECD and WTO, 2013.

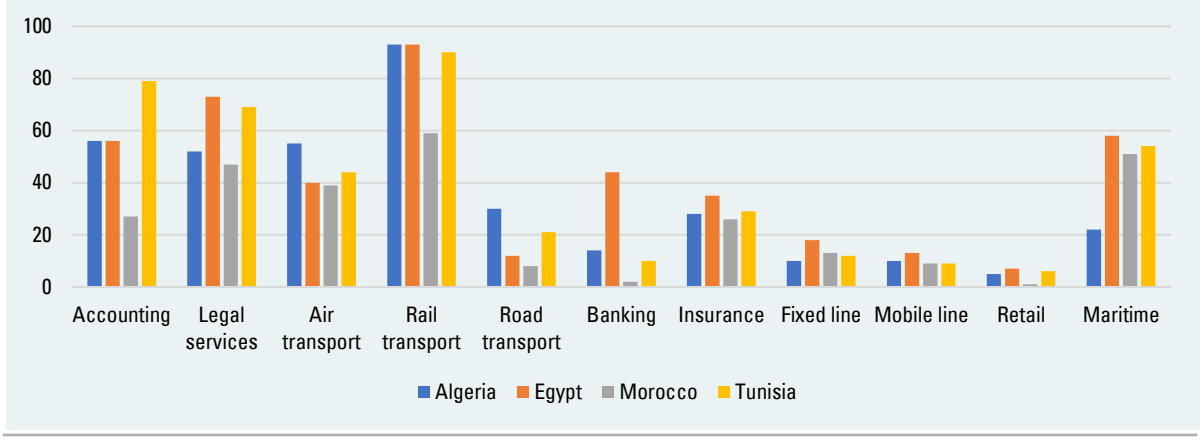
On the multilateral level, only 10 Arab countries are WTO members (Bahrain, Egypt, Kuwait, Mauritania, Morocco, Qatar, Saudi Arabia, Tunisia, Yemen, and the United Arab Emirates). All of them made commitments under the GATS, under which services are divided into twelve aggregate sectors: business, communication, construction and engineering, distribution, education, environment, financial, health, tourism and travel, recreation and cultural, transport, and other. In absolute terms, the largest number of commitments in these sectors was made by Kuwait, Morocco and Qatar. Out of the 12 sectors, Egypt and Yemen made commitments in all sectors, Kuwait in 8, Morocco in 7, Qatar and the United Arab Emirates in 6, Tunisia in 3, and Bahrain and Mauritania in 1sector only. Most of the commitments by Arab countries were made in the tourism and travel services and financial services sectors (table AIII.13) (Hoekman and Sekkat, 2010).

The Arab countries' commitments under the GATS reveal that they have exhibited caution in moving forward with services trade liberalization. In fact, and as Hoekman and Sekkat (2010) conclude, the level and degree of Arab countries' GATS commitments are less than that of developing countries in general. The analysis undertaken in the previous chapter, which used the World Bank STRI database, confirms this finding and shows that Arab countries have highly restrictive policies in the five key sectors covered by the survey (financial services, telecommunications, retail distribution, transportation, and professional services). The results from a conversion of the indices of the STRI into tariff equivalents are reported in figure 42; they show high levels of protection across practically every sector. Hoekman and Shepherd (2015) find that STRIs are one determinant of the value of bilateral merchandise trade flows, with policies affecting investment in retail distribution and transport being of particular importance. These high levels of protection exact a high price on the competitiveness of Arab firms and actually handicap them in GVCs.

An investigation of Arab countries' services restrictions within RTAs leads to a similar conclusion. A World Bank survey finds that restrictions on trade in the five sectors surveyed are much more severe in the PAFTA member countries than in the rest of the world (Borchert, Gootiiz and Mattoo, 2012). Given this, there is a significant number of market opening measures that Arab countries could undertake. Both PAFTA and the DCFTA may provide complementary paths to reform services policies and unlock cross-border trade and investment, both regionally and extraregionally.

Even though the aim of PAFTA is to liberalize, among its members, policies for investment and services trade, including the lowering of non-tariff barriers, little progress has been achieved in these areas. In the wake of the Arab uprisings in 2011, the European Commission (EC) was mandated to launch DCFTA talks with Egypt, Jordan, Morocco, and Tunisia. As of the beginning of 2018, only Tunisia and Morocco have entered into negotiations and, at the initiative of the Moroccan Government, its negotiations were halted in 2014in order to assess the potential impacts on its industry, reflecting concerns about the net benefits of a DCFTA and worries that an agreement would not have enough domestic support.

**Figure 42.** Estimated ad valorem tariff equivalent of STRIs (Percentage)




**Source:** Jafari and Tarr, 2014.

The decade that preceded the Arab Spring was rife with unilateral and multilateral trade reforms in the Arab world, complemented by preferential agreements in the context of the PAFTA, the GCC, the Agadir Agreement, and the European Neighbourhood Policy (ENP). Consequently, the average uniform tariff equivalent of all tariffs (ad valorem and specific) for the region fell from some 15 per cent to around 7 per cent in 2016. However, these changes in border protection were not accompanied by any significant improvements in customs administration and the business climate (World Bank, 2016a).Accordingly, surveys of trading enterprises have shown that tariffs no longer constitute a major impediment to trade expansion (Hoekman and Zarrouk, 2009).However, while preferential trade agreements may raise welfare, they could give rise to trade and investment diversion that is so important that the net impact on welfare is negative. This issue becomes more acute in cases where one party in the agreement is, by design, the hub, and the other parties the spokes. This is the case of the DCFTAs where the EU market is, by design, the hub, and its partner Arab countries the spokes.

In addition, the EU approach in its DCFTA is intended to support the gradual convergence of its partner countries to the acquis communautaire (EU acquis) in specific areas of the EU Single Market legislation. This approach may be suitable for countries that are slotted to join the EU. However, it seriously calls into question the concept of voluntary partnership given that the partners are not in a position to actively participate in the definition of a common landing zone that responds most effectively and efficiently to their growth and development objectives.

Putting aside this top-down, one-size-fits-all governance approach, the benefits and costs of contractual and legally binding agreements with non-accession track countries must be carefully identified and examined. The issue does not only pertain to the adjustment costs associated with such convergence – there is a presumption that the EU will cover such costs through technical and financial assistance. Equally importantly, one must consider whether the DCFTA provides a framework that helps deliver better economic outcomes than other approaches, whether these may be unilateral

or with other regional or extraregional partners. Indeed, many non-neighbouring countries to the EU have developed deep trade relations with the EU without converging to EU rules and regulations.

In November 2015, the EC launched a review of its ENP in response to the radical changes in a large number of countries that surround the EU. In its call for the review, the EC recognized that not all parties aspire to EU rules and standards and called for a differentiated approach and greater mutual ownership of the process. This is a welcome development if EC indeed follows up with a differentiated, à-la-carte approach with each of its partners.

It is worth noting that the EU has always emphasized the need for Arab countries to complement integration with the EU with efforts to enhance integration amongst themselves. Indeed, it is within this context that the EU has provided technical and financial assistance to Egypt, Jordan, Morocco, and Tunisia, following the implementation of the Agadir Agreement that came into force in 2007. Nevertheless, the EU's adoption of the Pan-Euro-Mediterranean rules of origin that exclude the GCC and other Arab countries made Arab regional integration processes more complex. This calls into question the role of the EU as both a promoter and a major self-interested party in regional integration in the Arab world.

As for negotiations under the auspices of the League of Arab States on integrating trade in services into PAFTA, concrete negotiations started in March 2001 with the decision to launch a first study on the integration of trade in services. In 2002, the fourteenth Arab Summit ratified a draft agreement in a resolution that referred to the Lebanese initiative on integrating trade in services in PAFTA and called on the Arab States to launch the negotiations. Arab experts meetings in Beirut in 2002 and 2003 followed to discuss the draft agreement submitted by Lebanon. The draft agreement was agreed upon and ratified by the Economic and Social Council of the Arab League in 2004; it called on Arab States to launch the negotiations related to the schedules of commitment as part of a round of negotiations titled 'The Beirut round of negotiations on the liberalization of trade in services among the Arab States'. The first meeting of the Beirut round, held in 2004, was attended by five Arab States: Egypt, Jordan, Lebanon, Qatar, and the United Arab Emirates, and in addition to the General Secretariat of the League of Arab States. After a period of more than 12 years, the negotiations ended in early 2017. During the last meeting, the schedules of commitments were agreed on for nine countries: Egypt, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, the Sudan, United Arab Emirates, and Yemen. With the exception of Lebanon and the Sudan, the signing countries are WTO members and have already committed to significant liberalization in services trade. The case of Lebanon is somewhat special in that it has a rather open policy regime compared to other Arab countries, even though it is not yet a WTO member.

## 2. The macroeconomic impact of trade in services liberalization in the Arab region

This section presents the results of different analyses designed to estimate the impact of alternative scenarios of services trade liberalization on the Arab countries. Most of them consider the welfare benefits that would accrue to different Arab countries if they were to integrate services in the two most important

regional integration agreements, the PAFTA and DCFTAs with the EU. The simulations, therefore, proxy the impact of a deeper economic integration, extending beyond merchandise trade, within the Arab region and with the EU.

Estimating the impact of policies that have a wide range of economic and social consequences is not an easy task. Country and global general equilibrium models are usually used because they provide a comprehensive framework that includes most of the relevant interrelations of market economies and take into account both immediate and second-round effects. In reality, policy interventions are usually accompanied by a variety of other changes. The model isolates the impact of individual policy changes, assuming that other policies and exogenous conditions remain unchanged (UNDP, 2011).

Impact assessments for the DCFTAs between the EU and each of Libya, Egypt, Jordan, Morocco, and Tunisia have been carried out by the EU and other organizations ECORYS, 2013a, 2013b, 2014a, and 2014b; and European Commission, 2009 However, the integration of trade in services into the PAFTA, which may have far-reaching effects on both macroeconomic and sectoral performance, has so far not been evaluated for any country. All five country assessments are based on multisector, multi-country dynamic computable general equilibrium models that focus on measures to increase the contestability of services markets and liberalization of the cross-border flows of investment, in addition to the adoption of the acquis in certain areas.

The existing country-level studies of DCFTAs have been undertaken separately, namely, taking as their baseline the status quo in partner countries, not considering plans to deepen the PAFTA or any other agreement. This is a major shortcoming since it neglects additional reforms and reactions by other countries mainly in the form of increasing competition between non-European countries on the EU market. The DCFTA benefits to partner countries are consequently overestimated.

As far as the DCFTA is concerned, impacts studies carried out by ECORYS for the EC show that largest relative GDP gains among the five countries (Egypt, Jordan, Libya, Morocco, and Tunisia) are projected to accrue to Tunisia, which could see its GDP increase by 7.4 per cent in the long run, induced mainly by reductions in non-tariff measures (NTMs), followed by agricultural tariff reductions. The biggest estimated change in Tunisia's services output is expected to take place in the air transport sector (+42 per cent), which has a high concentration of high- and medium-skilled labour. The output of utilities, personal and recreational services, water transport, and public services are also expected to increase. At the same time, some services sectors that are key to participation in GVCs, such as banking and insurance, telecommunications, and logistics services, are estimated to shrink. The large projected gains to Tunisia at the macrolevel are related to two assumptions: that the EU agricultural market will become more welcoming of Tunisian exports and that those workers who lose their jobs in contracting sectors will be absorbed into the expanding sectors.

In Morocco, the ECORYS study estimates that GDP gains from the DCFTA are in the order of 1.6 per cent, driven mainly by regulatory convergence in goods markets. The exports of all industrial sectors increase significantly (for instance, the other machinery and motor

vehicles sectors are estimated to see increases of 71 and 50 per cent, respectively). The study finds that most services sectors, however, will witness decreases in exports. Imports are increasing across all sectors (with the exception of primary energy), and for many sectors this increase is between 5 and15 per cent.

For Egypt, the ECORYS study projects a 1.8 per cent increase in its long run GDP as a result of the DCFTA, with most of the gains resulting from the reduction in NTMs in goods trade. At the sectoral level, Egypt's agriculture and food sectors are projected to decline, given that the sector continues to benefit from large protection under the existing Egypt-EU Association Agreement. The study also finds marginal increases in the production of the majority of the industrial products. In the services sector, air transport is expected to increase its value added the most, while business and ICT sectors would see the largest reductions in value added. The macroeffects of the EU-Jordan DCFTA are projected to induce a 2.1 per cent increase in Jordan's GDP. The gain is associated mainly with the reduction in NTMs and, to a lesser extent, tariff reductions. Jordan's agriculture, food, beverages, and tobacco sectors are anticipated to decline, while other manufacturing and chemicals, rubber and plastics would see a significant increase in output. No detailed modeling of services was undertaken in this study. With regard to labour, the simulations indicate that around 5 per cent of the less skilled and 3 per cent of the medium- and high-skilled workers would move from contracting to expanding sectors.

Finally, for Libya, two alternative scenarios on deeper integration with the EU have been evaluated. The first scenario assumes a modest FTA agreement, which stipulates a 90 per cent reduction in tariffs for the food and manufacturing sectors, and a removal of 50 per cent of the ad-valorem equivalent of barriers to trade in services, as well as measures to facilitate trade and lower NTBs that amount to 1 per cent of the value of total trade. The ambitious FTA agreement scenario implies a 97 per cent reduction in bilateral tariffs for goods, a 75 per cent reduction in barriers to services trade and trade facilitation measures corresponding to 3 per cent of the value of trade. The results show that a potential FTA between the EU and Libya is expected to yield positive income effects for Libya in the short and long run. Although results differ across the two scenarios, it is obvious that the long-run investment-related effects are most important in reaping the potential gains from the FTA. Gains from reductions in trade barriers may lead to an increase in incomes by up to 6 per cent of Libya's GDP. In addition to the short-run effects, the FTA is also expected to give rise to a number of long-run, investment-related effects. A more liberal trading environment between EU and Libya should enhance investment and innovation incentives, resulting in a faster pace of capital accumulation. This additional boost to economic growth is expected to take a little longer to be fully realized, perhaps up to a decade.

Importantly, all the five DCFTA studies find a negative impact on third countries, including countries that are parties to PAFTA. This is mainly due to trade and investment diversion. In addition, the studies show that the generation of aggregate welfare gains would require most critically policy convergence with the EU. This result is expected, at least theoretically: adopting EU technical barriers to trade (TBTs) and sanitary and phytosanitary (SPS) regulations would necessarily increase the cost

of production, forcing less efficient producers to exit the market while the more efficient producers would assimilate the costs but then be forced to translate higher costs into higher prices, both in domestic and export markets. The net gain (or loss) will be determined by the willingness of consumers to pay higher prices for higher standard products.

Matters are further complicated when looking into services, where aligning Arab countries' regulatory regimes with those of the EU would require changes in the frameworks governing mobility, licensing and approval of services providers, all the while taking into account the political economy factors that underline existing policies in both the EU and partner countries. The EU will at best offer opportunities, rather than automatic greater access for Arab services providers. As stated above, focusing efforts on the EU acquis in services may not be the most efficient route to promote trade and development in the Arab world.

From the perspective of the Arab countries, neither the DCFTA nor PAFTA would maximize the welfare gains from reforms, as they are both discriminatory. However, PAFTA offers participating countries more freedom to adopt regulatory regimes that respond to their local conditions and development ambitions and are less discriminatory, making it easier to also support greater integration with the rest of the world. Attention within the PAFTA should move to complete the intraregional framework in goods and services. Where possible, the PAFTA should adopt international norms and best regulatory practices; open and non-discriminatory FDI policies; and mutual recognition of the qualifications, licensing and certification of service providers, of product standards and technical specifications, and of conformity assessment procedures. In addition, it should embrace enhanced cooperation in border management procedures. PAFTA can and should also empower the private sector and civil society actors to be active participants in defining the rules of the game that will impact their businesses and communities.

Konan and Maskus (2006) use a CGE framework with multiple products, services and trading partners to compare goods versus services liberalization in terms of welfare, production and factor prices in the context of Tunisia. They consider impediments to both cross-border services trade and foreign ownership. Goods trade liberalization yields a modest gain in aggregate welfare. Reducing service barriers generates relatively large welfare gains and low adjustment costs. Services liberalization increases economic activity in all sectors and raises the real returns to both capital and labour. The results point to the potential importance of deregulating services provision for economic development. Chemingui (2000a) developed a CGE model of Tunisia to estimate the impacts of trade liberalization on economic activity in general and investment in particular. He considers the importance of regulations and restrictions on foreign providers of producer services for growth and FDI attraction. Similarly to the model developed by Markusen, Rutherford and Tarr (2000), foreign services providers import an input, which is a composite of foreign skilled labour and specialized technology, and economize on the use of domestic skilled labour, compared to the domestic firms that provide the substitute service. The study found large gains, estimated to reach 6 per cent of GDP, to the Tunisian economy from services trade liberalization with the EU. The same simulation shows that Tunisia could expect an additional growth rate of

around 15 per cent annually for FDI inflows over the simulation period 2000-2010, compared with only 5 per cent in the reference scenario.

### 3. Cross-cutting effects of services trade liberalization under the PAFTA and DCFTAs

Assessing the potential implications of services liberalization in the Arab region is a complex exercise and should not focus only on macroeconomic and sectoral performance. In this respect, a significant number of methodological issues must be addressed to allow assessment of cross-cutting issues and the broader impact of services trade liberalization. Among other aspects, services trade may make important contributions, not only to development in general, but more specifically to progress on the SDGs, which have a target year of 2030. Among those challenges, there is the fundamental issue of whether reforms affecting goods and services sectors can be used as tools for achieving objectives in other areas, which are less directly linked to trade and production. Such objectives include, among others, advancing gender equality, reducing income inequality, saving the environment, and combating climate change. Assessments of the impacts of trade reforms on these areas are needed to prioritize among alternative reform options and make decisions on complementary policies that could offset costs and increase gains. This section focuses on the impacts of trade-in-services liberalization on some important cross-cutting issues. The purpose is to complement the existing studies that have assessed the macroeconomic and sectoral policies of scenarios for liberalization of services trade. To do so, tailored versions of CGE and gravity models have been developed and used to analyse such cross-cutting issues. In the rest of this chapter, our analysis will focus on two important dimensions: inflows of FDI and some dimensions related to the 2030 SDGs.

## B. Services trade liberalization and FDI inflows

FDI and the services sector are closely linked. FDI is a major channel for foreign services operators to contest and penetrate the domestic market. In 2007, services accounted for 60 per cent of the global FDI stock, which then amounted to some $15 trillion. In order to assess the importance of FDI as a service delivery mode, it is necessary to depart from traditional statistics. In fact, sales of services by affiliates of foreign-owned firms are not recorded as trade in the national accounts or balance of payments, implying that such data need to be collected separately. The concept of Foreign Affiliates Trade in Services (FATS) was put forward to fill the gap in the 1990s but the progress on this front remains limited. The United States has been spearheading these efforts and collects data of relatively good quality. The United States' data suggest that establishing commercial presence (mode 3) is the most important channel for United States firms to export services. In 2005, sales by United States foreign affiliates stood at around $530 billion, some 50 per cent higher than total cross-border services exports, registered in the balance of payments at around $360 billion (Hoekman and Kostecki, 2009).

For services, part of the importance of FDI stems from that it helps overcome the proximity burden that most services still face, namely, the burden related to the fact that most services are not storable and that their exchange still requires consumers and suppliers to be physically proximate. In addition, for services as

well as goods production, FDI is an important channel for gaining access to know-how, technology, and sectoral best practices. Also, market contestation often lead to production of a wider range of high-quality, cost-efficient services for households and firms. As outlined in chapter 3, greater competition in services markets and access to a broader range of differentiated services should increase the productivity and competitiveness of domestic firms, with the extent of the gains depending on the intensity with which services are used as inputs. Firms that are relatively intensive users of services should benefit the most. This could even lead to situations in which domestic firms become competitive in new markets after having benefited from better access to high-quality and/or cost-efficient services.

## Methodology and data

The empirical evidence on the determinants of FDI, particularly in services, for Arab countries is relatively scant. This section presents a new econometric analysis undertaken to examine the link between FDI flows and services trade restrictions, with a view to determining what sets apart Arab countries from other countries in terms of FDI determinants and quantifying the possible impact on FDI flows and trade if Arab countries are to embark on services trade liberalization. Box 5 presents the approach and the methodology.

### Box 5. Econometric analysis – approach and methodology

A two-stage procedure is followed to answer the questions of interest. The first stage involves estimating the effect of services trade restrictions, as measured by the Service Trade Restriction Index (STRI) of Borchert, Gootiiz and Mattoo (2012), on foreign direct investment (FDI) inflows in the services sector using a gravity model, following Kleinert and Toubal (2010). The next step gauges the impact of FDI stocks (not inflows) in the services sector on the exports of goods and services by estimating a trade gravity model. The two stages are carried out separately in view of data requirements and the methodology used.

The gravity model for bilateral FDI inflows is specified in a way that allows us to control for a range of country- and sector-specific factors. While the main variable of interest is the STRI, which captures the extent of market integration between the two countries, the model also includes standard gravity variables, such as the sizes of economies involved in the FDI transaction, and the physical distance. Additional control variables, such as common border, common language and common colonizer, are also included in an extended gravity model. The estimated model for exports is also a gravity equation and, by and large, similar to the specification for FDI in the first stage. Differently from the FDI equation, in the second stage estimations, exports are assumed to be a function of FDI stock and a vector of barriers to trade, along with the standard gravity variables.

In both stages, the estimated models allow for conditioning on common global shocks, by controlling for (a) time-fixed effects that vary across time and are common across all countries; and (b) home and host-country specific factors, the latter via the inclusion of time-invariant, home and host-country specific fixed aspects that are not accounted for among gravity-type variables and unobservable idiosyncratic factors.

A potentially interesting question to explore is whether Arab countries differ systematically from the rest of the world in terms of the relationship between FDI inflows and services trade restrictions. In order to evaluate this possibility, a dummy variable indicating that destination country is from the Arab region and the interactions of this dummy variable with services trade restriction measures (both the STRI and Doing Business Indicator) are also introduced in the model.

The estimations are carried out by employing the ordinary least squares (OLS) and a Poisson pseudo-maximum likelihood (PPML) estimator, providing a robustness check for the results. The OLS estimator, on the one hand, is extensively used in the literature to estimate equations for FDI flows and stock. The PPML estimator, on the other hand, is being deployed increasingly to estimate gravity equations as it makes it possible to take advantage of the information contained in zero FDI flows. Also, depending on the estimator, the estimated model is slightly modified. The dependent variable is the logarithm of FDI inflows when the OLS estimator is used while the level of FDI inflows is uses with the PPML estimator.

The analysis exploits an unbalanced panel data set, covering all the announced FDI inflows between countries around the world over the period 2003-2016 (for a total of 6630 country pairs with a FDI transaction in manufacturing or services). The bilateral FDI data covers, at the two-digit industry level, the number of FDI projects, the total value of capital expenditure, and the number of jobs created.

These data are supplemented with data on bilateral trade flows in agricultural, mining and manufacturing products; the STRI, GDP; GDP per capita; the shares of services sectors in GDP and employment; and membership in RTAs. It is complemented by data on variables generally used to estimate the standard gravity model, including distance, common language, contiguity and colonial ties (see table AIII.1 for the full list of variables).

As bilateral FDI flows tend to be lumpy and volatile while, at the same time, FDI inflows typically contribute to economic growth and international trade for the full life cycle of the capital formed, the study attempts to construct the stock of FDI inflows in service sector for destination countries since 2003 to explore the impacts of FDI stock in both service and manufacturing sectors on the trade performance of destination countries. In constructing the stock of FDI in service sector since 2003, an annual depreciation rate of 8 per cent is assumed. This assumption reflects the rapid advance in the technological content of FDI inflows, especially in the services sector.

The STRI of Borchert, Gootiiz and Mattoo (2014) is used in the study as the main measure of barriers to services trade (see chapter 3 for further details). The STRI is however available only for one year (for most countries around 2010), suggesting that these indices may not reflect the current policy environment. In order to partially remedy this situation, the World Bank's Doing Business indicators are also used as a proxy for the restrictiveness of the services trade policy regime.

The data on bilateral services trade have been extracted from World Bank's trade-in-services data, which covers annual bilateral trade at the two-digit sector level among countries between 2005 and 2016. The data covers two modes of services trade, mode 1 (cross-border – services supplied from the territory of one country into the territory of another, for instance, software services through e-mail to another country), and mode 2 (consumption abroad – services supplied in the territory of one member to the consumers of another, for instance, education services in another country). However, for most Arab countries, this database only has data on services trade between individual Arab countries and the rest of the world as a whole rather than services trade between individual Arab States and individual countries.

Using the WITS database, the current study extracted data on the value of bilateral trade on agricultural, mining and manufacturing products for the period between 2003 and 2016. These values will be utilized to explore whether FDI in destination countries' service sector facilitates the exports of the destination countries of agricultural, mining and manufacturing products.

To capture the impacts of RTAs on FDI in services sectors, the study uses the RTA data constructed by Egger and Larch (2008).[18] The data covers four distinct (but not mutually exclusive) types of RTAs: free-trade agreements (FTAs), customs unions (CUs), economic integration agreements (EIAs), and partial scope agreements (PSAs), which only cover selected products.

The data on remaining standard gravity variables, including the bilateral distance, the dummies for common language, contiguity, and colonizers are all taken from CEPII. GDP and GDP per capita in constant US dollars for source and destination countries are obtained from World Bank (2017a). The level of service sector GDP in the destination country, and the gap in the development of service sectors between destination and sources country are also acquired from the World Bank (2017a).

Regarding the linkages between FDI and trade restrictions in the services sector at the aggregated level, the estimates are in line with the existing body of literature and theoretically plausible (tables AIII.2 and AIII.3). First, standard gravity variables are significant determinants of FDI in services with expected signs. For example, both destination and source country GDPs are significant positive determinants of FDI inflows in services. The physical distance between destination and source countries is a significant impediment to such inflows. Cultural links (indicated by dummies for a common language and colonial past) also contribute positively to service sector FDI inflows. The evidence on the impact of RTAs is mixed. Of the four RTA variables, only the coefficients for the CU dummy are consistently negative and statistically significant across all specifications.

As for the impact of services trade barriers, two findings stand out. First, the study shows that the coefficient of the World Bank's Doing Business Index is positive and statistically significant across all specifications and regardless of the estimator, suggesting that an enabling business environment facilitates FDI inflows. The result suggests that a 10 per cent increase in the destination country's debt burden ratio (DBR) score would lead to a 7-9 per cent increase in FDI inflows into the service sector. Second, the coefficients for the STRI in mode 3 services trade (the supply of services through commercial presence) are negative and statistically significant across all estimations, suggesting that a policy discrimination against the supplying of services through commercial presence discourages FDI inflows in the service sector. None of the other two measures of the STRI are statistically significant throughout all the estimations.

The gaps in GDP per capita and the service sector share in GDP between source country and destination country are also found to be positive and statistically significant determinants of FDI flows in services, suggesting that countries at a higher stage of economic development tend to invest in destination countries at a lower stage of economic development.

As an additional robustness check, the model is re-estimated by restricting the sample to OECD countries as FDI originating countries (as opposed to all country pairs). The results from the full sample hold up to a large extent. In particular, the results confirm that a high level of services trade restrictions in mode 3 in destination countries tend to reduce FDI flows from OECD countries. A business-friendly environment in destination countries, however, increases FDI flows from OECD countries. The results also confirm that investors from OECD countries respond similarly to services trade restrictions and business-friendliness in Arab and non-Arab countries. One finding that is different from the full-sample results is that the coefficient for the PSA dummy is found to be positive and statistically significant, suggesting that having a PSA with OECD countries has a positive impact on FDI flows from those countries.

Turning to the linkages between FDI and services trade restrictions in services subsectors, the results are quite interesting for four of the subsectors that are considered: business, telecommunication, financial, and transportation services. While the variables for the standard gravity model, such as the GDP of destination and source countries and the physical distance between them, are still significant determinants of FDI in the four services subsectors (as in the case of the overall services), the impact of the STRI and business-enabling environment on FDI tend to vary across the different subsectors.

In the financial services sector, the coefficients of the STRI in both modes 1 and 3 are found to be negative and statistically significant, suggesting that restrictive services trade policies have a negative impact on FDI inflows (table AIII.4). The coefficient of the Arab country dummy is negative and statistically significant, suggesting that Arab countries tend to attract less FDI in the financial service sector, all else being equal. It is interesting that the Doing Business Indicator score is found to be negatively related to FDI inflows to the financial services sector; this is contrary to expectation and needs further investigation.

In business services, of the three measures of services trade restrictions, only the STRI for mode 3 is statistically significant across all specifications (table AIII.6). The Doing Business Indicator is not found to be significantly associated with FDI flows either, suggesting that only restrictions on establishing commercial presence matter for FDI flows in business services.

In the telecommunications sector, neither the measure of services trade restrictions nor the Doing Business Indicator is statistically significant. The gap between the GDP shares of services sectors between source and destination countries is found to be a statistically significant determinant of FDI in telecommunication services. The coefficient of the Arab country dummy is also negative and statistically significant, indicating that Arab countries tend to attract less FDI in the telecommunication services sector, all else being equal. Also, having an economic integration agreement with an OECD country tends to attract more FDI inflows from OECD countries into the telecommunications sector.

In the transportation services sector, the sector's overall STRI and in mode 3 are found to be negative and statistically significant, suggesting that a higher level of services trade restrictions, particularly in mode 3, constrains FDI in the

transportation services sector. The results also suggest that Arab countries tend to attract less FDI in the transportation services sector, all else being equal.

Finally, the analysis turns to the identification of linkages between merchandise exports and FDI in services, which is among the top justifications why more deregulation in services sectors may be an engine to boost goods exports via GVCs. It consisted of exploring the impact of FDI in services on the destination countries' merchandise exports. However, due to data limitations, this analysis was not extended to services exports. To capture the impact of FDI inflows, as well as the technology and knowledge embodied in FDI, on destination countries' merchandise exports, FDI stocks were constructed for 2016, using FDI inflows since 2003 and assuming an annual depreciation rate of 10 per cent.

Several points emerge from the estimation results, which are theoretically plausible and mostly confirm the prior literature (table AIII.8). Standard trade gravity variables, such as income levels for source and destination countries, and the physical distance between country pairs, are statistically significant and have the expected signs. The coefficients of all RTA dummies are found to be positive and statistically significant, suggesting that RTAs facilitate merchandise exports. The impact of a CU is particularly significant. The results suggest that CU membership tends to increase merchandise exports by around 60 per cent.

The average applied tariff rates of FDI source and destination countries are found to be negatively and statistically significantly associated with merchandise exports, implying that higher tariff rates in both destination and source countries tend to reduce merchandise exports. The coefficients for the stocks of FDI from FDI source countries since 2003 are found to be positive and statistically significant, suggesting that FDI stock from FDI source countries contribute positively to the merchandise exports of FDI destination countries to FDI source countries. The impact of total FDI stocks on bilateral merchandise exports, however, is not statistically significant.

It is worth pointing out that the coefficients of the services FDI stocks from source countries are consistently higher than the coefficients for the manufacturing FDI stocks from source countries across all specifications, suggesting that FDI inflows to the services sector contribute more significantly to merchandise exports. This is an interesting result that confirms the strength of the role of services in reducing transaction costs by facilitating temporal and spatial exchange of inputs and products, as well as the growing share of services embodied in the production and trade of goods.

Finally, Arab countries tend to export less merchandise products, as suggested by the negative coefficient of the Arab country dummy. However, the coefficient of the interaction term between Arab dummy and service sector FDI stock are found to be positive and significant, implying that service sector FDI stock in Arab countries contribute more significantly to merchandise export, all else being equal.

## C. Services trade liberalization and Sustainable Development Goals

Trade in services is a main pillar of today's global trade and can be a keystone in achieving the SDGs, perhaps even playing a more

important role than goods trade. The services activities that are covered by the GATS, which entered into force in 1995, include the following: business services, communication, construction and distribution services, education, environmental and financial services, health-related and social services, tourism and travel-related services, recreational, cultural and sporting services as well as transport services. For example, in the GATS, the trade-in-services aspect that promotes sustainable tourism may play a prominent role in achieving SDGs 8, 12 and 14 (on decent work and economic growth, responsible consumption and production, and life below water, respectively). Services account for two thirds of global GDP, but only one fifth of the gross value of global trade, suggesting that an enormous potential for growth-in-services trade may exist in the digital era, as more and more of services delivery is becoming less constrained by physical distance between producer and consumer. Mattoo and others (2007) provide evidence that liberalizing trade in services has a stronger impact on economic growth (SDG 8) than goods trade liberalization (which already is relatively liberalized). This is due to the mobility of factors of production (capital/labour) employed in services trade, which is unique to the sector but also since liberalization of the services sector often involves FDI and related technology transfer, which tend to take place in the context of services liberalization. In addition, trade in education services may play a key role in accomplishing SDG 4 (quality education) by ensuring that wider accessibility of education that is of better quality and/or less costly. This should also have a positive effect on other SDGs, including SDGs 1 (no poverty) and 4. The GATS can also play a significant role in the development of appropriate policy and governing frameworks to enhance market opening in support of SDG 4. According to the 2017 SDG Index and Dashboards report (Bertelsmann Stiftung and Sustainable Development Solutions Network, 2017), Arab countries rank in the middle spectrum of the overall SDG index classification, with Tunisia ranking the highest at 65 out of 157 countries included in the sample; Mauritania, Yemen and the Sudan were ranked toward the bottom. Given known vulnerabilities and challenges, the report finds that the Middle East and North Africa region should prioritize SDGs 2 and 6 (food security and sustainable agriculture, and sustainable water management, respectively).

Furthermore, gender equality, unemployment and action against climate change are also among the many areas in which progress is urgent. Trade in services can alleviate some of these pressures as it promotes the mobility of labour, and consequently improves their chances of finding jobs, and also facilitates the distribution of environmentally friendly technology. The empowerment of women may also be promoted, as trade may expand services that in many Arab countries (and elsewhere) are dominated by women.

Trade in services can also help improve health outcomes. The delivery of health-care services is being globalized, as reflected in the growing cross-border movement of health-sector workers and consumers. Liberalized trade in services means that people in developing countries with a weak health-care industry can benefit from innovative products and services offered in other countries. This also depends on a favourable and just regulatory environment as well as government policies that are structured to provide equitable access to health services. The domestic health system in Arab LDCs could also be greatly improved thanks to spillover

effects, contributing to the achievement of SDG 3 (good health and well-being).

The following section provides a more detailed analysis of the potential effects of promoting trade in services and the achievements of selected SDGs. However, the analysis does not directly discuss the target variables of each goal but rather provides a first-round assessment that points to likely effects on some important dimensions of selected SDGs.

## 1. Services trade liberalization and gender equality

The ILO estimates the 2016 female labour force participation rate for the Arab region to be 23 per cent, compared to 75 per cent for males. The Arab region female unemployment rate for 2016 is estimated to be more than double the male rate, at 20 per cent for females compared to 9 per cent for males.[19] These data reflect the extent of gender inequality for market labour in the Arab region. However, Arab women are highly involved in the informal and unpaid sectors that normally are not taken into account in official numbers.

For the Arab region, it is important to note the importance of women's labour in the services sector, especially given its important contribution to GDP and trade (chapter 3). The fact that work in the sector is more culturally accepted than for other sectors does in part explain the important role of women. The main services sectors with important contributions by females are education and teaching services (especially in the GCC countries) and, throughout the region, administrative and clerical services, and social and welfare services (like health care and nursing) (ESCWA, 2017). From another angle, services are important sources of employment for women; to exemplify, according to the most recent data, the shares of working females employed in services is 85 per cent for Lebanon and 52 per cent for the United Arab Emirates.[20]

According to the Heckscher-Ohlin model (HO model), women are likely to benefit more from trade if countries start to export goods or services with production that intensively uses female labour.[21] Yet, Becker (1971) argues that women would be expected to gain from trade expansion regardless of the resulting export structure, since trade leads to more competition and encourages firms to reduce the costs associated with discrimination against female labour.[22] In either case, one would expect increased trade in services to have positive effects on women working in the sector as well as potential market entrants.

In general, among the modes for services trade, 1 and 4 were identified as providing the greatest opportunities for developing countries to foster general welfare, gender equality, and women's social and economic empowerment.[23] Across services sectors, wage/salary trends show that, as the literacy levels of females increase, wage disparity declines. However, it is interesting to note that, even for university graduates and above, the average salaries earned by females in Tunisia and the Syrian Arab Republic are only 80 per cent of those earned by males with similar education levels (Chemingui and Thabet, 2011). In Egypt, women's average earned income is less than one third of that of men. Moreover, wage disparities are higher in rural areas in countries such as Egypt, Tunisia, Morocco and the Syrian Arab Republic. This implies that, with higher growth for services production and employment assuming that employment opportunities for women grow at

the same rate, the growth benefits in term of wage bill will accrue more to males rather than to females.

Articles IV and XIX of GATS stress the importance for developing countries to use their comparative advantage in labour-intensive sectors to engage more in international trade in services. Mode 4 (movement of natural persons) also has a clear gender specificity in certain sectors. Through mode 4, workers in developing countries may be offered the opportunity to obtain well-remunerated employment through temporary movement reallocation abroad to provide services, as a result bringing back remittances to their home countries. World Bank estimates suggest that annual remittances received from temporary workers abroad in 2015 amounted to around $20.4 billion for Egypt, followed by $7.5 billion for Lebanon, and $3.8 billion for Jordan. These countries are the top emigration countries in the eastern Arab world and, in 2013, females made up around 44.2 per cent of their total emigrant stocks (World Bank, 2016b). Improving gender equity, reducing poverty and achieving a more balanced development for the Arab region through people mobility is therefore a promising option. The expansion of trade in services would also bolster women's empowerment by facilitating much needed access to better quality health and education services.

Using a simple SAM multiplier approach, the direct impact of a 20 per cent increase in output of three sectors (banking and insurance, transport and logistics, and distribution) on employment by gender is found to be significant.[24] However, the highest employment multiplier is found for males in transport and logistics services followed by banking and insurance, and communication services. However, the gender differential in employment multipliers is conditioned on the level of access to better resources in terms of education, training, technology and knowledge. In the current context of some Arab countries, gender disparities in accessing these services are believed to be high mainly in the rural areas. Using a dynamic CGE model of Tunisia tailored for analysis of services trade (Chemingui and Thabet, 2014), the liberalization of financial and transport sectors is estimated to induce a welfare gain equivalent to an additional 1.5 percentage points of GDP, including a 1.2 percentage points increase in household welfare. However, the reductions in unemployment would be more significant for men than for women (with cuts of 5 and 3 percentage points, respectively) over a period of five years. The main reason is linked to the impact of higher efficiency in services sectors, not only of their own exports but also the export of goods, which would benefit strongly from lower trade and production costs and are more intensive in male employment. Moreover, women would benefit from the liberalization of services sectors only if social norms permit expanded employment and if supplies of unemployed women with the right skills are available for employment.

When looking at trade services from a gender lens, it is important to consider issues like wage inequality and barriers to women's economic participation such as cultural expectations and the disproportionate involvement of Arab women in unpaid care work.

Given the fact that liberalization of services trade may have a strong impact on female labour demand, there is a strong case for designing trade reforms so that they induce

increased participation of women in productive sectors with a strong potential, most importantly female-intensive services sectors. Special attention also needs to be given to the informal sector, which is an important employer for women in the Arab region and for which formalization may yield substantial benefits in the context of increased trade openness.

## 2. Poverty reduction and income distribution

The potential for trade liberalization to bring about strong redistribution effects have been firmly established by economists. For example, for sub-Saharan Africa, Bussolo and Lecomte (1999) found that a reduction in average tariffs from 40 per cent to 10 per cent would entail real income losses of 35 per cent for urban employers and 41 per cent for recipients of trade rents, while farmers' incomes would increase by 20 per cent. The overall net gain for the economy was estimated at 2.5 per cent. The relatively small size of this efficiency gain compared to the redistribution effects makes trade liberalization a challenge from a political perspective. This finding confirms the standard Stolper-Samuelson theorem, i.e. that trade liberalization in economies that are labour-abundant and capital-scarce yields gains for labourers at the expense of capital owners (Winter 1999). Since poor people are more likely to be wage earners than capital owners, trade liberalization should redistribute income towards poorer groups of the population. If trade restrictions are protecting skilled labour-intensive sectors, their removal would shift income towards unskilled labourers who, obviously, are more likely to be among the poorest. However, if natural resources are important as an additional factor of production, the picture becomes more complicated. For instance, in Latin America and Africa, trade liberalization may actually have resulted in a shift in the distribution of earnings away from unskilled workers by expanding exports of certain sectors that are intensive in the combined use of natural resources and skilled labour (Chemingui and Thabet, 2008 and 2014). Moreover, the standard result assumes perfect competition in all markets; if the labour market is segmented, it can be shown that the protected workers or the insiders could gain at the expense of informal workers and the jobless. That is why it is important to take into account heterogeneity and labour market segmentation when analysing the effects of trade liberalization scenarios on poverty and income distribution.

It is obvious that trade policy reforms likely would result in some households winning and others losing. Given the diversity of households in any economy, even the most attractive reforms would typically generate some losers, at least in the short run. According to one position, it would simply be best to accept this outcome in the production sphere if it seems necessary to move the economy to a higher level of efficiency and competitiveness while using the gains to compensate the losers. An alternative approach would be to argue against reforms that hurt any group, especially if it is poor. The latter position may sound extreme but, as Harrison and Yin (2000) noted, they have prevailed on many occasions.
For Richardson (1995), the real question, which brings us back to the old compensation issue, is whether reforms should be implemented just if the total benefits exceed the total costs, or only if those who lose indeed are fully compensated.

The redistribution impact of trade reforms should play an important role in the search for instruments that could be used to alleviate these burdens.

Some economists have used aggregate indicators such as the levels of wages and employment, or the value added in different sectors, in order to assess the effects of different trade reforms on the distribution of income (Beyer, Rojas and Vergara, 1999; Harrison and Hansen, 1999). As this approach fails to capture the mix of effects on specific households and their responses to prices, other researchers have tried more elaborated models accounting for the interrelationship between labour markets and prices of staple agricultural goods. For instance, Ravallion (1990) used a partial equilibrium model to examine changes in rural welfare distribution in Bangladesh due to changes in food prices under induced wage responses. Levy and van Wijnbergen (1992) also followed this partial equilibrium approach when analysing income effects on different types of groups after changing production and consumption subsidies on agricultural goods. Other economists have used econometric models to analyse the impact of trade on income distribution and poverty.[25] The general conclusion from these studies is that developing countries applying more open trade regimes have enjoyed higher growth rates than those implementing restrictive policies. However, some critical work finds the relationship between trade liberalization and growth to be weak (Rodriguez and Rodrik, 2000; and Harrison and Hanson, 1999). There is a stronger consensus on that involvement in international trade is crucial for rapid income growth, even though this has been achieved with varying degrees of trade liberalization.

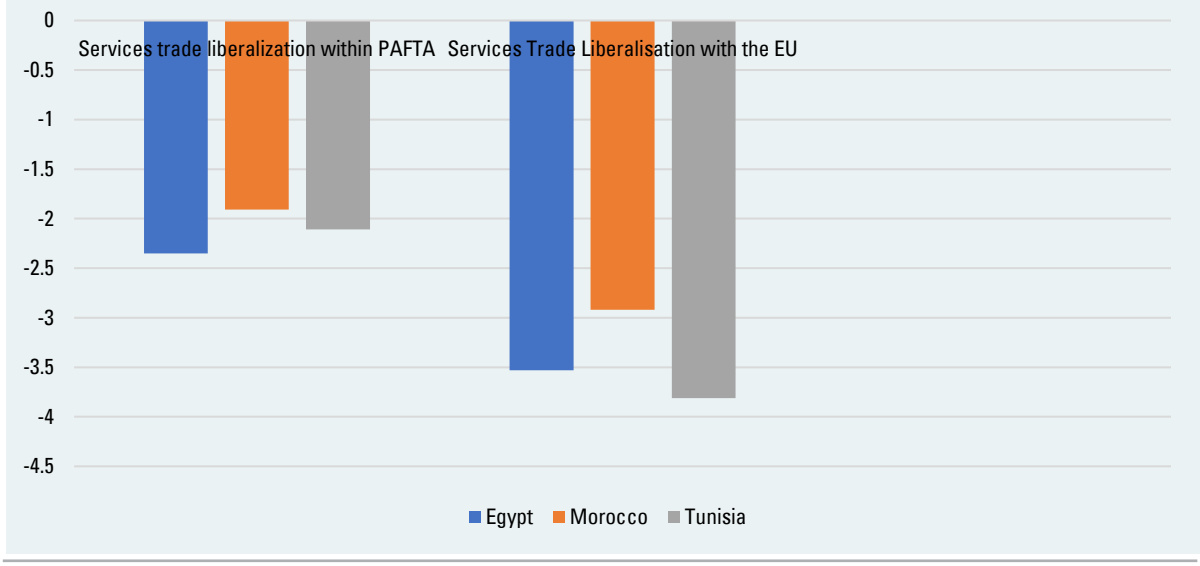
To assess the distributional impact of trade reforms in a country, it is important to understand the prevailing consumption and production patterns and the anticipated behavioural responses of households to price and income changes following trade liberalization. This means that there is a need for a framework that makes it possible to simultaneously analyse the behaviour of households in the past through survey analysis, and to be able to simulate what this behavior would be in the context of future policy reforms. In this regard, drawing on extended versions of CGE models for Arab countries and drawing on the findings from other recent studies and assessments (IFPRI, 2010; UNDP, 2011), we simulated the impacts of alternative services trade liberalization scenarios on income distribution and poverty. The main extension for the purpose of the analysis is related to the integration of a module for services trade (Chemingui, 2000a). Two alternative simulations for liberalizing transport and financial services with the EU (DCFTA) and the Arab countries (PAFTA) give rise to interesting tendencies which confirm most of the main findings from the more specialized literature on trade and poverty.

For Egypt, our analysis suggests that GDP would increase significantly under services trade integration under both DFCTAs and PAFTA; the gains would amount to around 1 additional percentage point of GDP over the next 10 years. However, at the microlevel, the impact on households would vary depending on their area (rural versus urban) and position in the income hierarchy. Consumers would be negatively impacted from increased prices of consumption items in the context of export expansion while producers would gain from increased output prices for competitive sectors mainly in agricultural and manufacturing. At the same time, promoting trade in the financial and transport services would increase exports and attract more FDI, which in turn would absorb job seekers, mainly among skilled workers in the

urban sector. Thus, the impact on poverty would be mixed. Within a context of rising wages of skilled urban workers and improving revenues of farmers, especially in the top deciles, integration of services trade into the DCFTAs and PAFTA would add further to human development, a factor that could make future income distribution more equal both in urban and rural areas.

In Morocco, the situation is a bit different given that the country is much more integrated into the international services market than other Arab countries. Accordingly, further liberalization of transport and financial services and its impacts on poverty and income distribution is likely to be marginal. However, for Tunisia, the situation is quite different as the country is lagging behind many others in the Arab region in terms of its liberalization of transport and financial services. Our assessment shows that the likely effect of promoting trade in these two key services would be a jump in exports and FDI inflows, which in turn would absorb unemployed labour, particularly among the more skilled. Once again, the impacts would be a reduction in country-level poverty but with a more significant decline in urban areas. The transmission of gains to rural households is not direct and may take more time and additional policy initiative, including improvements in the infrastructure that connects rural areas to the urban and international economy. The net economic effects would be significantly positive, but income distribution may become less equal both in urban and rural areas (figure 43).

**Figure 43.** Impacts on poverty (Percentage change in poverty rate in 2020)




**Source:** Author's estimates using the models' results.

## 3. Greenhous gas emissions

Evidence from past integration schemes in developed regions and countries, such as the EU and the United States, have shown a wide range of changes in GHG emissions. Factors influencing the changes in GHG emission levels include the impact of integration on GDP and its structure, the level of substitution among energy categories, and the extent to which factors are reallocated between sectors with higher and lower emissions. Of course, such changes would also depend on the initial economic conditions of the countries, their energy endowments, and their energy policies.

GHG emissions are relatively low in the Arab region. For the countries with the highest per-capita emissions, the main cause are domestic subsidies on energy products – this is the case for most of the GCC countries and other Arab energy exporters like Algeria, Iraq and Libya. National CGE models for four countries Egypt, Kuwait, Saudi Arabia, and Tunisia – all extended to cover GHG emissions, were used to assess the impacts of two scenarios for services trade liberalization (Chemingui and Lofgren, 2004; Chemingui and Roe, 2008; Chemingui and Feki 2010, and Chemingui and Thabet, 2014). The details of the extended CGE model are presented in Annex 4. Across the board, integrating services liberalization into their FTAs with the Arab countries (PAFTA), and with the EU for Tunisia and Egypt, would lead to significant GDP increases. The results also show that most emissions are likely to increase quite noticeably for four GHGs ($CO_2$, F-gas, $N_2O$, and $CH_4$). The annual changes by country, scenario and gas range from 10 per cent to -2.2 per cent as average yearly changes compared to the baseline scenario 2018-2020. But even after these strong increases, the emission levels would remain relatively low compared with other regions and countries, such as the United States, EU and China.

However, if we analyse the changes in GHG emissions separately for each trade agreement (PAFTA for all four countries and the EU for Tunisia and Egypt), integration with the EU and within the Arab countries, we see that Arab-wide integration tends to bring the strongest increases on emissions, while integration with the EU has the smallest impact. More specifically, our estimates show that promoting intra-Arab trade in transport and financial services for the four countries would increase annual emissions of $CO_2$ by about 1.5 per cent for Tunisia, 2.4 per cent for Kuwait, 2.8 per cent for Egypt, and 3.7 per cent for Saudi Arabia on average, compared with the baseline scenario. Emissions of $N_2O$ increased by about 1.8 per cent for Tunisia, 3.2 per cent for Saudi Arabia, 3.7 per cent for Kuwait, and 2.2 per cent for Egypt. The reason behind the smaller impact on GHG emissions from services trade integration with the EU is that such integration would require some SPS harmonization that would facilitate substitution among energy sources, albeit at economic costs.

Finally, it is important to note that these simulations do not address other important environmental challenges for the Arab region, including pollution of air, water and soils and their negative effects on both human health and agricultural productivity. Furthermore, we do not go into details regarding accompanying policies that could mitigate such effects through appropriate pollution abatement policies in the form of pollutants taxation or technological transformation to boost substitution among energy sources. Such policies and different trade reforms are likely to bring challenges that must

be confronted. Although the discussion is focused on selected Arab countries, it is well recognized that environmental challenges — particularly GHG emissions — have no borders. Solutions will require cross-national cooperation and the implementation of appropriate national policies in a wide range of areas to raise awareness and address different health implications (Chemingui and Thabet, 2014).

## D. Conclusions

The analysis undertaken in this chapter suggests that the integration of trade in services into trade agreements holds strong potential for enhancing sustained economic and social development. However, the realization of this potential will depend on critical policy choices in the years to come.

A lot has been written about regional integration in the Arab region. This report adds to this literature by beyond the macroeconomic benefits of deeper trade reforms through its focus on services trade. However, this is only part of a more complicated story. ESCWA's various publications and technical documents bring to the fore some of the gains that Arab countries could achieve through modernization and transformation of their economies. In fact, most of the gains from trade openness are strongly associated to the opening of services to international competition. Moreover, a large literature finds clear evidence that attracting FDI in high-value-added economic sectors is positively associated with the promotion of services trade. For the first time, this chapter identifies the likely impacts of promoting trade in services on important cross-cutting issues that have been neglected in previous studies of the region. The overall picture that emerges is that, even though trade openness is good for development and growth, it can also be a source of more pressure on natural resources, increased income inequality, and higher pollution with its negative social and economic impacts.

Yet, services trade liberalization may be an opportunity to advance gender equality and women's empowerment. However, this is unlikely to happen without more flexible labour regulations and trade reforms that encourage the involvement of female employment, especially in services. Success in making services trade contribute effectively to inclusive and sustained economic and social development will depend on critical policy choices to be made by Arab leaders in the coming years. The next chapter presents a list of recommendations for Arab policymakers, private operators, and regional actors that, if implemented, could contribute to the realization of strong economic and social gains from deeper trade integration, both within the Arab region and between the Arab region and the rest of the world.

# 5. Conclusions and Policy Recommendations

# 5. Conclusions and Policy Recommendations

The current volume of the AAEIR focuses on promoting trade in services in the Arab region, with a view to forging a common understanding about the extent, nature and scope of challenges Arab countries face in liberalizing services trade and ultimately to presenting comprehensive and viable policy recommendations. The analysis goes beyond the macroeconomic context, also covering some specific dimensions, such as social and environmental implications. The main findings of the report are put into perspective by providing brief quantitative assessments of alternative services trade liberalization schemes in the context of PAFTA and DCFTA. As established in the report, most Arab countries exhibit a rather restrictive stance in services trade policies and regulations. In the following section, some important policy recommendations highlighting the respective role of governments, civil society and the private sector, as well as that of international and regional organizations in promoting the significance of trade in services in general, and in deepening relations within the Arab countries and the EU in particular. The second part then goes on to discuss different elements related to the political economy of services trade reforms in general and in the context of Arab countries to the greatest extent possible.

## A. Services trade liberalization and options for Arab countries

RTAs are an important vehicle to push forward deep integration agendas. More recent RTAs contain provisions and commitments on government procurement procedures, improving the business climate for domestic and international investors, and the protection of intellectual property rights. RTAs can facilitate closer cooperation, coordination and certainly continuous exchange between public officials from the countries involved to reduce barriers to commerce under the various form of regional integration arrangements. These provisions often have a higher payoff in trade expansion than simply removing tariffs.[26] Nevertheless, trade and investment-related measures to foster participation in the global economy, and in the GVCs in particular, are often of a domestic nature, underlying the importance of unilateral action. Fortunately, most GVC-enhancing reforms will also have a positive impact on non-GVC trade, and on overall competitiveness and economic development more generally. In this regard, it is critical to emphasize, at the current juncture for Arab countries, that PAFTA and DCFTA should serve as a means of achieving deeper integration while continuing to move forward at the multilateral level.

Falling trade and investment barriers and advances in digital technology have reduced costs for service delivery across borders and led to a prominent role for services in trade and production, including in manufacturing. Deregulation in air and road transport, the abolition of antitrust exemptions for maritime liner transport, the privatization of ports and port services, and the divestiture and break-up of telecommunications monopolies are, according to Hoekman (2015), the main examples of regulatory measures that have reduced the cost of service delivery across borders. However, substantial barriers remain in some of the Arab countries' services sector, preventing them from participating in GVCs. Some key services that would allow domestic firms to compete against global players and to connect to international production networks include ICT, supply chain management, financial, transport, and logistic services. In this regard, PAFTA policy agenda in services should provide an impetus for services trade liberalization in Arab countries, emphasizing the relevance of services liberalization for competitiveness and GVC engagement.

Furthermore, the mutual recognition or convergence of both public and private voluntary standards, through national or international guidelines, could help Arab countries move forward to deepen their trade relations among themselves but also with their main partners such as the EU and the United States. International assessments of firms' behaviour clearly confirm that upstream firms supplying components to several destinations may no longer incur burdensome certification procedures multiple times for the same product or have to duplicate production processes to comply with conflicting standards. In this respect, attraction of FDI is no more determined only by low wages or cheap energy products or even fiscal incentives, but it is more subject to the efficiency of trade operations. For the case of food value chains, process standards adapted to one country's requirements may render exporting to another country infeasible. Promoting the convergence of standards and certification requirements through PAFTA and encouraging mutual recognition agreements can go a long way toward alleviating the burden of compliance and enhancing the competitiveness of small-scale exporters. The Euro-Med partnership could be seen as an opportunity for converging standards in the Arab countries with those of developed countries. DCFTA represents a chance through which the involved Arab countries could seek financial aid and support to undertake such a process of upgrading. Thus, taking advantage from preferential trade agreements is no longer possible if such agreements are limited to provisions on trade in goods. Trade in services and the associated provisions are believed to represent the main channel through which countries could facilitate their transformation through higher connectivity to GVCs and knowledge development through FDI inflows.

Services trade liberalization entails an active involvement of many actors. ESCWA is well placed to work with governments, businesses, consumers, and labour groups to strengthen regional partnerships, with a view to coming up with the best options to proceed with services trade liberalization. An inclusive partnership approach opens the door to the best insights and most successful models from those with experience in improving productivity, developing skills, and spreading prosperity through higher participation in GVCs.
The old models for import-substitution policies are no longer viable and integration should be

reinforced to take parts of the opportunities arising from the intensification of GVCs in international trade. The enhanced dialogue among key stakeholders could also present opportunities to develop and mainstream strategies and approaches for services trade liberalization in a way that serves set social and economic goals, including the SDGs. For instance, conducting a gender impact assessment is recommended to ensure that the design, sequencing and implementation of services trade liberalization reforms actually deliver desired outcomes or consistent with identified goals in terms of promoting gender equality and women's empowerment.

Lead firms' emphasis on quality and costs of services represents an important area for potential spillovers in the domestic market. Many of these firms are already providing technical assistance to local suppliers and producers to improve activities along the production chain. Meanwhile, civil society advocacy campaigns and technical assistance help mainstream sustainable practices and adherence to promoting trade in services reforms.

As both competitive and international pressures tend to make unduly restrictive policy and regulatory regimes increasingly untenable, services sector reforms begin at the border and gradually extend into more and more sectors and policies behind the border. In this regard, opening up the services sector for international competition requires policy initiatives at the multilateral, regional, bilateral or even unilateral levels. However, adjustment costs may appear in the short to medium term, calling for the adoption of other mitigating measures. In fact, and although the policies mentioned throughout this report along with removing barriers on trade in services through the four modes, will help in creating the necessary framework conditions for enhancing participation in GVCs, their effects may not be sufficient to ensure that Arab firms will be successful in participating in GVCs, as the broad key challenge for suppliers that want to integrate GVCs or that want to strengthen and upgrade their participation in GVCs is to increase productivity. In this regard, national policies oriented toward promoting innovation and productivity should focus on building comprehensive innovation ecosystems and operate at different levels, most of which are directly or indirectly linked to services liberalization. Three levels are usually cited as appropriate and immediate actions. Firstly, the emphasis is put on improving framework conditions, then building innovation capacity and innovation skills, and finally facilitating connectivity and system articulation.

Furthermore, improving access to digital networks is of particular importance, given their dual role in enhancing productivity and strengthening SMEs' access to global markets (OECD and World Bank, 2016). However, access to cloud resources requires the build-up of domestic infrastructure as well as policy frameworks. Standardization is also key to the further deployment of cloud services in the Arab region. Finally, ICT skills adapted to the new dominant technologies have to be developed. They include not only hard-core technical skills but also soft skills and the ability to navigate the complex and ever-growing opportunities, open-source technologies and services, and information available at the global scale. Thus, promoting trade in services in the Arab region will be achieved not only through trade agreements but mainly through national actions on a unilateral basis.

## B. How should Arab countries proceed with services liberalization reforms?

Despite a relatively wide consensus on the positive impact of services liberalization on economic growth and development, there are no specific policy lessons on how to ensure the success of services sector reform. The success of services sector reform depends crucially on the specific context of individual economies due to the complex interaction of history, institutions, ideas, leadership, diverse actors, or external influences, considering the process is shaped by institutional, political, and economic dynamics within a given system, as well as vested interests of individual agents and groups. Moreover, various sectors within the economy present reformers with different obstacles and therefore require approaches tailored to their needs. Nevertheless, some general guidelines and principles can be drawn out from economic theory and specific case studies.

An additional challenge in services trade liberalization is that the State is engaged in the direct provision of services to citizens in some cases. Apart from education and healthcare, which tend to remain in the public domain, certain network industries, where the potential for natural monopoly is high, fall under this group. This area of reform presents special challenges of its own that must be taken into consideration due to the combined involvement of both direct administration of services and regulation of markets. In many instances, this might include altering the State's role in a given field, as in the case of public administration reform or the privatization of services provided by State-owned monopolies (OECD, 2010). In general, reformers in such areas are advised to aim their regulatory policy on parts where the potential for natural monopoly is the highest (for instance, with high barriers to entry), and liberalize those that resemble affiliated services characterized by competition. Finally, the last area of reform relates to the efficiency of the State itself as both the provider of specific services and the ultimate body that establishes the regulatory policy and ensures its enforcement. Although liberalization of certain sectors might be very specific in focus, its implementation and durability is closely linked to the willingness and capability of bureaucracy and political actors to apply the changes. In this sense, countries with bloated bureaucracies will often have to confront the reluctance of their officers to carry out the reform, especially when it comes to limiting their own privileges. Usually, a successful sectoral reform therefore begins with a process of reforming the reformers and increasing the efficiency of their administration.

Considering the opportunities, costs and challenges reforms offer different actors, which have different endowments, preferences and interests, pushing forward with the reforms in the first place, ensuring the continuity, full implementation and durability of reform require full commitment and a broad-based, integrated approach. For instance, while the costs of reform tend to fall on a small group of actors, benefits are often diffuse. This implies that potential winners need to be informed of benefits and organized. Reformers need to uncover the costs of the current regime, as well as its weaknesses, and communicate them clearly and consistently to stakeholder groups to secure their support. The losers from reform, however, are well-organized and well-informed about the stakes, allowing them to block reform initiatives at earlier stages. In this regard,

reformers are confronted with the necessity to form a coalition of constituents strong enough to proceed with reforms. Addressing concerns about distributional consequences and adjustment costs is an important aspect of the reform process, which could determine its ultimate success. Furthermore, the preservation of status quo is reinforced by the agents' preference of avoiding losses to acquiring gains (loss aversion) in combination with their tendency to overestimate the value of their property (endowment effects). Consequently, they are more susceptible to the overestimation of costs and underestimation of benefits associated with the reform. Rather than simply securing the compliance of the opposition, successful leaders therefore focus on winning its consent and greater trust by discussing their counterarguments publicly and taking their concerns into account. In general, a reasonably comprehensive and forward-looking approach helps to evade becoming stuck in an undesirable equilibrium due to the emergence of new vested interests or due to a sabotage by other unreformed sectors.

An additional dimension that reformers should be aware of are inefficiencies and issues associated with imperfect services markets. For instance, natural monopolies, which are characterized by specialized assets and large up-front investment, could be plagued with market failures stemming from asymmetric information, moral hazard and regulatory capture. Regulatory agencies need to have the capacity, tools and power to prevent firms in such industries from adopting anti-competitive practices and to stimulate investment, cost efficiency and service improvement. To this end, regulatory agencies have to possess certain essential features, such as orientation on public interest, expertize-based organization, transparency, and independence from political as well as corporate influence, in order to facilitate its efficiency and legitimacy among regulated firms. Once they have these qualities, regulators can remain accountable to political authorities while at the same time resist frequent attempts from both public and private agents to control their decisions. In addition, coordination between individual subsectors within an industry helps to avoid the overall inefficiency of the sector, as, for example, in the case of rail, road and maritime logistics, and increase its resilience to a potential sabotage by other unreformed sectors. In general, strong institutions can also contribute to shaping the relationships between public authorities, regulators, regulated firms, and users of public services.

Apart from engagement of potential opposition in the negotiation process of reform, the agenda has to offer clear benefits and incentives for every actor – including the opposition – to follow. It is important to note that a compensation of potential losers of reform does not necessarily have to contradict its essential principles, but rather to aim for a support of particular groups that will be affected by the change and improve their prospects for adaptation. For example, certain investments or even contracts including labour commitments secured in good faith on the basis of the previous policy regime might become less valuable with the implementation of reform. Therefore, reformers might consider offering direct compensation or other transitional arrangements to some of these negatively influenced by the change in order to avoid needlessly protracted phase-in periods. Such compensations should be above all directed toward groups that are disadvantaged and less able to adapt, for instance by 'grandfathering'

rents, exemption from reform for a certain period of time, or less commonly by broader trade-offs that offset the costs of one domain by favourable policies in others. In any case as OECD observes, the owners of capital are better predisposed to accommodate to both the costs of reform and non-reform than other agents. While in the former situation, they are able to adjust their portfolios and maximize their chances of economic return based on the new circumstances and often even before they begin to pay the price, in the case of the latter, they can capitalize on their advantage of having wider range of adaptive strategies in response to suboptimal policies and institutions.

Another crucial factor that affects reforms since their early phases is macroeconomic stabilization. In particular, there is significant evidence that the influence of macroeconomic performance is especially high as a determinant of whether and when reforms are initiated, nonetheless it appears to be of little significance when it comes to whether and when these initiatives are adopted and implemented. However, experience suggests that fiscal consolidation aiming primarily at structural reductions in public spending, and supported by strong fiscal institutions generally increases the potential of reform's success. A series of successful case studies on fiscal consolidation documents the value of re-examining rules-based fiscal frameworks and institutions later on in the process and directing their focus on building prudent macroeconomic assumptions into the budgetary process. Simple and transparent mechanisms that are enforceable by public, media or independent authorities, substantially increase the political costs of breaching such a framework of rules. However, without a broad and enduring political support for such a stable, transparent and effective fiscal framework, the legislative status of a rule cannot ensure its effectiveness. As a response to this problem, many countries have recently established non-partisan fiscal agencies that are responsible for certain technocratic functions in the budget process. At the same time, these fiscal councils provide a disciplining force that contributes both to the emergence of fiscal rules and to their effective enforcement. As a result, countries that dispose with such a non-partisan agency that provides inputs into the fiscal policy process evidently witness higher fiscal performance than others.

Reform is a lengthy process that can be stalled or diverted at multiple occasions over the time of its implementation or even afterwards, and therefore requires not only continuous long-term commitment but also sophisticated mechanisms that ensure its durability. New challenges that might appear during the process range from external shocks like technological revolutions to internal changes of political parties in power and migration of problem from one sector to another. Furthermore, reformers themselves often have to catch up with newly emerging gaps between current and good practice, for instance in the case of monitoring the progress. Consequently, various setbacks might even force them to take several attempts on reform. However, as demonstrated by a number of successful cases, each challenge brings with it new opportunities that can be utilized by well-prepared reformers in order to press ahead with reform. By contrast, experience suggests that many of the least successful reform attempts were undertaken in haste, often in response to immediate pressures. However, it is important to realize that any of these partial attempts can represent a mind-opening experience providing policymakers with valuable insights into the

complexity of the targeted environment, and eventually help to prepare the ground for other potentially far-reaching reform initiatives. Therefore, while it is important to aim for the ultimate goal and refer to it regularly, certain flexibility is necessary. In this sense, reformers are recommended to use experiments in order to uncover hidden dynamics along the way, as well as to introduce the changes in sequences, confronting the large issues as macroeconomic stabilization in the first place. Even more importantly, what determines the success of a lasting reform is the dedication of reformers to its durability. Although regimes with fewer policy actors have the advantage of relatively faster decision-making and implementation processes, their attempts on reform might be less successful in the long run. Unlike democratic environment, which enhances the bargaining power of opposition and allows for bottom-up mobilization of groups disadvantaged by politically inspired favours, the non-consultative character of authoritarian regimes often results in a limited responsiveness to public interests. While reform in democratic systems is often slower, it is also more likely to be durable, as consultative processes have garnered more widespread community support. However, an environment of shifting governments asks for special measures to assure the durability of a reform. In this respect, Hill (2013) highlights the beneficial effect of several lock-in and institutionalization strategies that can protect reforms against backtracking of future regimes, including independent institutions, legislative restrictions, or international and regional agreements.

Crises and other external shocks might be detrimental to the reform process, since, beside other things, it is much more difficult to convince potential losers of the benefits of adaption to changes while being under fiscal constraints then during a period of abundance. However, there is good evidence that crises often act as influential drivers of reform, both by demonstrating the unsustainability of the status quo and by disrupting the interest coalitions that have previously resisted reform. Furthermore, they tend to make individual agents more willing to accept certain risks that are an inevitable part of any change. As a consequence of loss aversion and endowment effects mentioned above, agents under usual circumstances tend to overestimate the risks and underestimate the benefits of reform. By contrast, dynamic situations characterized by uncertainty that threatens their existing endowments makes agents more susceptible to greater risks for a profit of equal size. Secondly, the unfavourable fiscal situation might constrain governments' ability to achieve any further progress. In particular, concerns related to a weakened fiscal position include potential difficulties for reformers in terms of estimating the costs of the current regime, compensating potential losers by transitional arrangements, as well as maintaining focus on the original goal of structural reform due to political pressures. Moreover, experience of several OECD countries suggests that reforms justified chiefly as responses to fiscal pressure may be difficult to sustain when that pressure eases. For these reasons, reformers should incorporate structural policy into the overall strategy to deal with the crisis, and focus their efforts on deregulation as well as reducing the cost of doing business in certain sectors, in order to guide investments toward efficiency and support the most affected parts of the private sector. In this sense, efficiency-enhancing reforms can be particularly beneficial at the time of constraints, especially when it comes to network industries and other non-tradable sectors discussed in detail later. A

specific type of external shock, which is highly relevant to specific industries examined in this report, is technological change. Similarly to other shocks, it can function as a powerful driver of reform as well as further innovation, for instance by turning formerly non-tradable sectors into tradable ones or creating new possibilities for introducing competition in activities previously characterized by a high degree of natural monopoly. Yet, the evolution of new technologies has often come so rapidly during the process of reform that the limited capabilities of government did not allow for their integration into a well-functioning market. However, new sources of competition and innovation might quickly undermine the rationale for existing regulation and create additional bottlenecks to reform, particularly in technology-intensive industries. In order to prevent the protected insiders from using these technical deficiencies to resist otherwise successful reforms, leadership has to keep up with technological change and, where possible, address the new advances by adjusting the regulatory focus.

Furthermore, international organizations often become an important driver of change in terms of monitoring, evaluation, or even exacted adherence to these regional and international benchmarks. By tracking the results of the reform against implementation performance indicators, monitoring agencies may influence commitment to reform by publicizing their assessment; this mechanism helps to bring a country under external scrutiny and thereby increase incentives for reform, as both individuals and groups wish to be held up as models of good performance rather than being shamed for bad performance. In particular, the role that external factors play in competition-oriented structural reforms proved to be especially significant in the area of foreign trade and investment. The success of regional economic cooperation depends largely on the region’s ability to overcome these challenges.

# Annex I. Globalization and dependency ratios ranking (Reference to chapter 1)

**Table AI.1** Changes in the globalization rankings over the period 2013-2016

| 2013 | 2014 | 2015 | 2016 | Rank |
|---|---|---|---|---|
| Malta | Malta | Luxembourg | Luxembourg | 1 |
| Luxembourg | Singapore | Singapore | Singapore | 2 |
| Singapore | Luxembourg | Malta | Malta | 3 |
| Lebanon | Moldova | Vietnam | Vietnam | 4 |
| Belgium | Lebanon | Belgium | Belgium | 5 |
| Oman | Vietnam | Moldova | Moldova | 6 |
| Moldova | Jordan | Netherlands | Netherlands | 7 |
| Vietnam | Oman | Honduras | Slovakia | 8 |
| Kuwait | Hungary | Ireland | Ireland | 9 |
| Honduras | Congo | Ghana | Honduras | 10 |
| Jordan | Honduras | Slovakia | Hungary | 11 |
| Togo | Belgium | Hungary | Cyprus | 12 |
| Netherlands | Netherlands | Oman | Czech Republic | 13 |
| Hungary | Togo | Czech Republic | Lebanon | 14 |
| Lithuania | Slovakia | Cyprus | Oman | 15 |
| Slovakia | Czech Republic | Lebanon | Ghana | 16 |
| Bahrain | Ireland | Kuwait | Kuwait | 17 |
| Somalia | Lithuania | Togo | Slovenia | 18 |
| Nicaragua | UAE | Jordan | Togo | 19 |
| United Arab Emirates | Nicaragua | Slovenia | Jordan | 20 |
| Qatar (44) | Iraq (22) | UAE (28) | UAE (30) | |
| Libya (49) | Bahrain (25) | Palestine (40) | Palestine (36) | |
| State of Palestine (55) | Kuwait (25) | Tunisia (48) | Yemen (47) | |
| Saudi Arabia (58) | Egypt (41) | Qatar (50) | Tunisia (49) | |
| Morocco (62) | State of Palestine (41) | Morocco (58) | Morocco (53) | |
| | Qatar (41) | Saudi Arabia (59) | Saudi Arabia (66) | |
| | Tunisia (49) | Bahrain (65) | Bahrain (68) | |
| | Libya (53) | Libya (67) | | |
| | Yemen (59) | Yemen (78) | | |
| | Morocco (60) | | | |
| | Saudi Arabia (61) | | | |
| Mauritius | Mauritius | Bangladesh | Bangladesh | 91 |
| Germany | Burkina Faso | Burkina Faso | Canada | 92 |

| 2013 | 2014 | 2015 | 2016 | Rank |
|---|---|---|---|---|
| Iraq | Malawi | Niger | Iraq | 93 |
| Sweden | Mexico | Sweden | Libya | 94 |
| Kazakhstan | Denmark | Mauritius | Bolivia | 95 |
| Chile | AMU | Canada | Gabon | 96 |
| Angola | Kazakhstan | AMU | Niger | 97 |
| Denmark | Portugal | Costa Rica | Rwanda | 98 |
| Israel | Laos | Iraq | Afghanistan | 99 |
| South Africa | South Africa | Rwanda | South Africa | 100 |
| Egypt | Canada | Israel | Mauritius | 101 |
| Ecuador | Rwanda | South Africa | Angola | 102 |
| Canada | Iceland | Angola | Costa Rica | 103 |
| Comoros | Finland | Uganda | Israel | 104 |
| Uganda | Norway | Norway | AMU | 105 |
| Pakistan | Sweden | Malawi | Uganda | 106 |
| Arab LDCs | Israel | Iceland | Kazakhstan | 107 |
| Portugal | Egypt | Egypt | Guinea | 108 |
| Laos | Ecuador | Pakistan | Norway | 109 |
| India | Comoros | France | Egypt | 110 |

**Sources:** Autor's estimates using Comtrade; World Economic Outlook (WEO); UN Stat; UNCTAD; World Bank database (accessed October 10, 2017).

## Table AI.2 Trend in the dependency ranking over the period 2014-2016

| 2014 | 2015 | 2016 | Rank |
|---|---|---|---|
| Singapore | Singapore | Singapore | 1 |
| Malta | Malta | Malta | 2 |
| Congo | Vietnam | Vietnam | 3 |
| United Arab Emirates | Belgium | Belgium | 4 |
| Vietnam | Slovakia | Slovakia | 5 |
| Belgium | Czech Republic | Czech Republic | 6 |
| Hungary | Netherlands | Hungary | 7 |
| Czech Republic | Hungary | Netherlands | 8 |
| Slovakia | Ireland | Slovenia | 9 |
| Netherlands | Slovenia | Ireland | 10 |
| Slovenia | Luxembourg | United Arab Emirates | 11 |
| Malaysia | United Arab Emirates | Luxembourg | 12 |
| Lithuania | Malaysia | Malaysia | 13 |
| Oman | Congo | Congo | 14 |
| Estonia | Lithuania | Lithuania | 15 |
| Bahrain | Honduras | Cambodia | 16 |
| Brunei Darussalam | Somalia | Somalia | 17 |
| Qatar | Estonia | Honduras | 18 |
| Honduras | Cambodia | Estonia | 19 |

| 2014 | 2015 | 2016 | Rank |
|---|---|---|---|
| Gulf Cooperation Council | Bulgaria | Mozambique | 20 |
| Kuwait (21) | Oman (29) | Kuwait (39) | |
| Jordan (41) | Kuwait (35) | Oman (40) | |
| Iraq (42) | Qatar (36) | Tunisia (42) | |
| Saudi Arabia (43) | Jordan (52) | Qatar (49) | |
| Mauritania (52) | Iraq (69) | Jordan (51) | |
| Tunisia (53) | Saudi Arabia (70) | Mauritania (52) | |
| Algeria (83) | Libya (74) | Morocco (66) | |
| Lebanon (85) | Lebanon (86) | Iraq (67) | |
| | Mauritania (95) | Saudi Arabia (77) | |
| West Bank and Gaza | Rest of Arab States | Ecuador | 110 |
| Sri Lanka | Algeria | West Bank and Gaza | 111 |
| China | West Bank and Gaza | China | 112 |
| Indonesia | Indonesia | Myanmar | 113 |
| New Zealand | Dem. Rep. of the Congo | Australia | 114 |
| France | Malawi | New Zealand | 115 |
| Iran (Islamic Republic of) | New Zealand | Indonesia | 116 |
| Turkey | Djibouti | Algeria | 117 |
| Nigeria | Guinea | Uganda | 118 |
| India | India | Dominica | 119 |
| Venezuela | Colombia | Libya | 120 |
| Uruguay | Cameroon | Congo | 121 |
| Djibouti | Uruguay | Iran | 122 |
| Colombia | United Kingdom | Djibouti | 123 |
| Australia | Dominica | Colombia | 124 |
| Myanmar | Uganda | Rwanda | 125 |
| United Kingdom | Australia | India | 126 |
| Cameroon | Iran | Egypt | 127 |
| Dominica | Rwanda | Uruguay | 128 |
| Pakistan | Pakistan | Tanzania | 129 |
| Egypt | Nigeria | Pakistan | 130 |

**Sources:** Autor's estimates using Comtrade; World Economic Outlook (WEO); UNCTAD; and World Bank database (accessed October 10, 2017).

# Annex II. Key restrictions on trade in selected services (Reference to chapter 3)

**Table AII.1** Key restrictions on mobile telecommunication in Arab countries

| Country | Mode 3 |
|---|---|
| Algeria | Acquisition of a state-owned entity is not allowed. |
| Bahrain | The limit on foreign ownership is 49 per cent for mobile telecom suppliers. VOIP is not allowed. A nationality requirement may be applicable to employees and the Board of Directors. |
| Egypt | The number of licenses is not fixed. The license allocation method is determined by the regulator. The regulator is independent from the sector Ministry. IG: entry is allowed, subject to licensing; the fee is decided by the regulator. VOIP: allowed, subject to licensing. Entrants are allowed to employ one foreign worker for every ten nationals. |
| Jordan | There is no limit on foreign ownership, however licenses are no longer being issued according to the Telecom Commission of Jordan. The regulator is independent from the sector Ministry. IG: entry is allowed (but no license is being issued currently); the fee is determined from case to case. VOIP: allowed. |
| Kuwait | The limit on foreign ownership is 49 per cent if entry is through greenfield investment, 75 per cent if through acquisition. Firms originating from Gulf Cooperation Council member countries may be exempt from these restrictions. IG, VOIP: not allowed (use of VOIP is illegal). A nationality requirement applies to employees and the chairman of the Board of Directors. |
| Lebanon | The limit on foreign ownership is 66 per cent. Acquiring state-owned entities is not allowed. The majority of the Board of Directors must be Lebanese. IG: new entrants can operate IG. VOIP: not allowed. |
| Morocco | The regulator is independent from the sector Ministry. IG: entry not allowed (ITU indicates it is allowed). VOIP: allowed. |
| Oman | The limit on foreign ownership is 70 per cent. The number of licenses is fixed by the regulatory authority based on its own assessment of how many licenses are needed. VOIP: not allowed. New providers cannot own and operate an international gateway. A certain percentage of employees must be Omani. |
| Qatar | This is effectively closed, as the majority state-owned company Qatar Telecommunications (Qtel) has the exclusive rights to all telecom services in Qatar until 2013. Despite the legal monopoly, a second mobile license has been granted in 2007 but the new entry was implemented as a closed bid and is not expected to occur again. |
| Saudi Arabia | Applicants must be locally incorporated. As of 03/2007, the limit on foreign ownership is 51 per cent, 60 per cent by the end of 2008. The regulator is independent from the sector Ministry. IG: entry is allowed. Fees consist of various components. VOIP: allowed. |

| Country | Mode 3 |
|---|---|
| Tunisia | The regulator is independent from the sector Ministry. IG: entry is allowed: fees consist of various components. VOIP: allowed for enterprises that are involved exclusively in exports and call center business. The management and members of the Board of Directors are not required to be Tunisian. |
| Yemen | There is no limit on foreign ownership. Majority requirement for employees and Board of Directors. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

## Table AII.2 Key restrictions on domestic road freight in Arab countries

| Country | Mode 3 |
|---|---|
| Algeria | Closed. |
| Bahrain | The limit on foreign ownership is 49 per cent in private and state-owned entities. Acquisition of a state-owned entity is not allowed. |
| Egypt | There are no equity restrictions. 90 per cent of employees must be nationals, although the competent Minister can approve exceptions to the 1:10 rule of foreign to local employees. |
| Jordan | Closed. |
| Kuwait | The limit on foreign ownership is 49 per cent in private and state-owned entities. Acquisition of a state-owned entity is not allowed. |
| Lebanon | The limit on foreign ownership is 49 per cent for all legal forms of entry. |
| Morocco | There are no equity restrictions. |
| Oman | The limit on foreign ownership is 70 per cent (unless the local private firm is a public joint stock company, the maximum stake that can be held by a single foreign entity is 35 per cent of the issued share capital). Acquisition of a state-owned entity is not allowed. |
| Qatar | The limit on foreign ownership is 49 per cent in a private and/or state-owned entity. Employment priority shall be given to Qataris unless none are available. |
| Saudi Arabia | Closed. |
| Tunisia | The limit on foreign ownership is 49 per cent in private and state-owned entities. The chairman and managers must be Tunisian. The Board of Directors must consist in majority of Tunisians. |
| Yemen | There are no equity restrictions. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

**Table AII.3** Key restrictions on domestic rail freight in Arab countries

| Country | Mode 3 |
|---|---|
| Algeria | This is closed (under state monopoly). |
| Bahrain | Acquisition of a state-owned entity is not allowed. For acquisition of a private entity, the limit on foreign ownership is 49 per cent. |
| Egypt | The sector is de facto closed because of a state monopoly on the existing network; Egyptian National Railway (ENR) is the government organization responsible for providing freight transportation on all railway networks. The acquisition of a state-owned entity is not allowed. New firms, however, are permitted to construct, operate and provide freight transportation on new lines. |
| Jordan | Legally railway transport is not restricted under the Regulation of non-Jordanian Investments no. (54) of 2000. However, rail transport is treated as a public sector and thus there are no private rail transport enterprises; the Hedjaz Jordan Railway is operated by the government. |
| Kuwait | N/A. There is no railway system. |
| Lebanon | N/A. There is no railway system. |
| Morocco | The Moroccan Railway Company (SMCF), a fully state-owned public limited company, manages the rail infrastructure and its commercial operation under a 50-year concession agreement, and has sole authority to conclude rail transport operating licenses with third parties. |
| Oman | N/A. There is no railway system. |
| Qatar | N/A. There is no railway system. |
| Saudi Arabia | There are no restrictions. |
| Tunisia | The limit on foreign ownership is 49 per cent in private and state-owned entities. The chairman and managers must be Tunisian. The Board of Directors must consist in majority of Tunisians. |
| Yemen | N/A. There is no railway system. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

**Table AII.4** Key restrictions on international maritime shipping in Arab countries

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Algeria | There are no restrictions. | There are no equity restrictions, except that acquisition of state-owned entities is not allowed. |
| Bahrain | There are no restrictions. | The limit on foreign ownership is 49 per cent, through acquisition of existing entities or joint ventures. Acquisition of a state-owned entity is not allowed. |
| Egypt | No restrictions. | Entry is allowed only through a joint venture. The limit on foreign ownership is 49 per cent. At least 95 per cent of maritime employees aboard a ship must be nationals. |
| Jordan | There are no restrictions. | The limit on foreign ownership is 49 per cent. Acquisition of a state-owned entity is not allowed. |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Kuwait | There are no restrictions, except there is a quota for government cargo. | Entry is allowed subject to approval, which is granted on a case by case basis. The right to import goods into Kuwait on a commercial basis is restricted to Kuwaiti entities which are members of the Kuwait Chamber of Commerce and Industry, and which have import licenses issued by the Ministry of Commerce and Industry. The limit on foreign ownership is 49 per cent in a private and state-owned entity. |
| Lebanon | Where a Lebanese shipping line is able to provide the requested service, it will be given priority over foreign providers. | For acquisition of a private entity or establishing a joint venture, the limit on foreign ownership is 49 per cent. Acquisition of a state-owned entity is not allowed. |
| Morocco | Morocco has adopted the UN Liner Code, which specifies a quota of 40/40/20 (national vessels/bilateral agreements/open to all). Also, 30 per cent of exported goods and 40 per cent of imported goods are reserved to the national fleet (e.g. to a state-owned shipping firm). | There are no equity restrictions. |
| Oman | There are no restrictions. | The limit on foreign ownership is 70 per cent. The Ministry of Commerce and Industry may at its discretion impose requirements for licensing to be fulfilled for establishing a subsidiary. At least 84 per cent of the employees must be Omani. |
| Qatar | There are no restrictions. | Entry is allowed through a subsidiary, acquisition, or joint venture. The limit on foreign ownership is 49 per cent in a private and/or state-owned entity. Employment priority shall be given to Qataris unless none are available. |
| Saudi Arabia | There are no restrictions. | The limit on foreign ownership is 49 per cent in private and/or state-owned entities. |
| Tunisia | This is open, except that any ship that reaches the harbors of Tunisia must use the services of the maritime agency that is established in Tunisia according to the regulations in force. | Non-Tunisians cannot exercise activities as maritime carriers, except that vessels constructed outside of Tunisia can operate under the national flag with a limit on foreign ownership of 49 per cent (same limit for state-owned entities). Crew members must be Tunisian; exceptions can be made for the captain if Tunisians are unavailable. |
| Yemen | There are no restrictions. | There are no restrictions. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

**Table AII.5** Key restrictions on domestic air passenger transport in Arab countries

| Country | Mode 3 |
|---|---|
| Algeria | This is closed (under state monopoly). |
| Bahrain | The limit on foreign ownership is 49 per cent. Acquisition of a state-owned entity is not allowed. |
| Egypt | Scheduled: The limit on foreign ownership is 40 per cent. Non-scheduled, international: There is no limit on foreign ownership. Entrants are allowed to employ one foreign worker for every ten nationals. The maximum foreign ownership permitted will depend on license conditions, as decreed by the competent Minister. |
| Jordan | The limit on foreign ownership is 49 per cent. Acquisition of a state-owned entity is not allowed. |
| Kuwait | The firm must be a joint stock company. For licensing, approval under FCIL is granted on a case by case basis. The limit on foreign ownership is 49 per cent. There is a nationality requirement for the Board of Directors. |
| Lebanon | Middle East Airlines, the national air carrier, has the exclusive right to provide air transport services until 2012. |
| Morocco | A ceiling on foreign equity in air transport company exists, however foreign majority ownership and control allowed. |
| Oman | The limit on foreign ownership is 70 per cent. If the existing firm is publicly listed, foreign equity participation for a single foreign investor is 35 per cent. Acquisition of a state-owned entity is not allowed. |
| Qatar | The limit on foreign ownership is 49 per cent; a higher percentage may be allowed if approved by the Council of Ministers. Entry through a franchise agreement is allowed. Employment priority shall be given to Qataris unless none are available; 50 per cent of the employees must be nationals. |
| Saudi Arabia | The limit on foreign ownership is 49 per cent (in effect since March 2007). |
| Tunisia | The limit on foreign ownership is 49 per cent. The chairman or general director of the Board of Directors must be Tunisian. |
| Yemen | There are no equity restrictions; 75 per cent of employees must be nationals. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

**Table AII.6** Key restrictions on international air passenger transport in Arab countries

| Country | Mode 3 |
|---|---|
| Algeria | Entry is allowed, subject to international and bilateral agreements. Acquiring state-owned entities is not allowed. |
| Bahrain | Acquisition of a state-owned entity is not allowed. The limit on foreign ownership is 49 per cent (for greenfield and M&A). |
| Egypt | Scheduled: The limit on foreign ownership is 40 per cent. Non-scheduled, international: There is no limit on foreign ownership. Entrants are allowed to employ one foreign worker for every ten nationals. |
| Jordan | The limit on foreign ownership is 49 per cent. Acquisition of a state-owned entity is not allowed. |

| Country | Mode 3 |
|---|---|
| Kuwait | The firm must be a joint stock company. For licensing, approval under FCIL is granted on a case by case basis. The limit on foreign ownership is 49 per cent. There is a nationality requirement for the Board of Directors. |
| Lebanon | Middle East Airlines, the national air carrier, has the exclusive right to provide air transport services until 2012. Certain routes are subject to conditions agreed under the BASA. |
| Morocco | A ceiling on foreign equity in air transport company exists, however foreign majority ownership and control allowed. |
| Oman | The limit on foreign ownership is 70 per cent. Acquisition of a state-owned entity is not allowed. The Ministry of Commerce and Industry may at its discretion impose requirements for licensing to be fulfilled for establishing a subsidiary. |
| Qatar | The limit on foreign ownership is 49 per cent; a higher percentage may be allowed if approved by the Council of Ministers. Entry through a franchise agreement is allowed. Employment priority shall be given to Qataris unless none are available. |
| Saudi Arabia | The limit on foreign ownership is 49 per cent (in effect since March 2007). Acquisition of a state-owned entity is not allowed. |
| Tunisia | The limit on foreign ownership is 49 per cent. The chairman or general director of the Board of Directors must be Tunisian. |
| Yemen | There are no equity restrictions; 75 per cent of employees must be nationals. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

## Table AII.7 Key restrictions on fixed-line telecommunication in Arab countries

| Country | Mode 3 |
|---|---|
| Algeria | Acquisition of a state-owned entity is not allowed. |
| Bahrain | The limit on foreign ownership is 49 per cent if providing local fixed-line, and there is no limit if providing international fixed line. VOIP is not allowed. A nationality requirement may be applicable to employees and the Board of Directors. |
| Egypt | There is no limit on the number of licenses available. The license allocation method is determined by the regulator on a case by case basis. The regulator is independent from the sector Ministry. IG: entry is allowed, subject to licensing; the fee is decided by the regulator. VOIP: allowed, subject to licensing. Entrants are allowed to employ one foreign worker for every ten nationals. |
| Jordan | There is no limit on foreign ownership. The regulator is independent from the sector Ministry. IG: entry is allowed; the fee is determined from case to case. VOIP: allowed. |
| Kuwait | This is effectively closed, as the Ministry of Communication is the only provider of fixed line telecom services. Nonetheless there is no law stating that there cannot be a new service provider, whose establishment would require passing another Amiri Decree. |
| Lebanon | The limit on foreign ownership is 66 per cent. Acquiring state-owned entities is not allowed. The majority of the Board of Directors must be Lebanese. IG, VOIP: not allowed. |
| Morocco | The regulator is independent from the sector Ministry. IG: entry not allowed. VOIP: allowed. |
| Oman | Closed. Only the majority state-owned incumbent Omantel used to provide fixed line services. As of November 2008, Qatar-based Qtel had been awarded a second fixed line license. |

| Country | Mode 3 |
|---|---|
| Qatar | This is effectively closed, as the majority state-owned company Qatar Telecommunications (Qtel) has the exclusive rights to all telecom services in Qatar until 2013. As of September 2008, a second fixed line license was been awarded to Vodafone, which thereby holds licenses for both fixed line and mobile services. |
| Saudi Arabia | Applicants must be locally incorporated. As of 03/2007, the limit on foreign ownership is 51 per cent, and will increase to 60 per cent by the end of 2008. The number of licenses is fixed, and allocated through a tender. The regulator is independent from the sector Ministry. IG: entry is allowed. Fees consist of various components. VOIP: allowed. |
| Tunisia | The regulator is independent from the sector Ministry. IG: entry is allowed, fees consist of various components. VOIP: allowed for enterprises that are involved exclusively in exports and call center business. The management and members of the Board of Directors are not required to be Tunisian. |
| Yemen | The limit on foreign ownership is 50 per cent through a joint venture. Entry through subsidiary or acquiring a private or state-owned entity is not allowed. IG, VOIP: not allowed; 75 per cent of employees must be nationals. Majority requirement for employees and Board of Directors. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

## Table AII.8 Key restrictions on the acceptance of deposits by banks in Arab countries

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Algeria | Not allowed. | Primary entry through a branch and the acquisition of state-owned banks are not allowed. |
| Bahrain | This is allowed, subject to domestic unavailability and written confirmation from the Central Bank. | The limit on foreign ownership is 49 per cent if entry is through a subsidiary. A controlling stake by a foreign bank is allowed if entry is through acquisition of an existing bank. Foreign acquisition of state-owned banks is not allowed. Due to Bahrainization policy, nationality requirements apply to employees and the Board of Directors. |
| Egypt | This is allowed, however transactions must go through licensed banks. | Entry is possible only through acquisition of an existing bank (applies to both Egyptians and foreigners). Expansion of existing Egyptian banks or foreign bank branches is allowed if the criteria specified by the Central Bank of Egypt are fulfilled. ENT applies to the primary entry of a foreign bank branch. There is no limit on foreign ownership for an acquisition. Entrants are allowed to employ one foreign worker for every ten nationals. |
| Jordan | Allowed. | There is no limit on foreign ownership. New licenses are no longer being issued to any applicant (domestic or foreign) due to market conditions. |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Kuwait | Allowed. | The foreign ownership limit is 49 per cent when entry is through a subsidiary and/or acquisition. Unless authorized by the Central bank, the direct or indirect ownership by a single natural person or legal entity in a Kuwaiti Bank shall not exceed five per cent of the bank's capital (non-discriminatory). A nationality requirement applies to employees (at least 39 per cent) and the Board of Directors (at least one member). |
| Lebanon | Allowed. | Entry through a branch is not allowed. A controlling stake in the shareholders' general assembly can be acquired by foreigners, however a controlling stake in the Board of Directors cannot be acquired by foreigners since the majority of the Board of Directors must be Lebanese. There is a limit on ATMs: the number of ATMs should not exceed the number of branches of the bank in the country (ATMs set up in the branch itself are not taken into account). |
| Morocco | Not allowed. | Licenses are issued at the discretion of the Central Bank. Foreign banks must provide a favorable opinion from the regulatory authority of the home country. The Central Bank ('Bank Al Maghreb') will need to be satisfied that the applicable rules and laws of the home country will not impede its control over the foreign bank's subsidiary or branch in Morocco. |
| Oman | Allowed. | Entry through acquisition of a state-owned bank is not allowed. The foreign ownership limit is 70 per cent. Any single foreign bank may not own more than 35 per cent of the voting shares in an Omani Bank. At least 90 per cent of employees must be Omani (this applies to both foreign and domestic companies). |
| Qatar | Allowed. | Foreign banks are generally not allowed to enter. Entry may be allowed only with the approval of the Council of Ministers. Establishment of retail banking in the Qatar Financial Centre (QFC) with 100 per cent foreign ownership is allowed, however retail banking service to residents is not allowed. |
| Saudi Arabia | Allowed. The supervisory agency (the Saudi Arabian Monetary Agency) must be notified. | The foreign ownership limit is 40 per cent. |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Tunisia | This is allowed if domestic firms conduct business abroad and need to pay for their local expenses. If domestic firms have no operations abroad, they are not allowed to have accounts abroad: proceeds from exports of goods and services must be repatriated. | Entry through a subsidiary is allowed, but is subject to approval of the MOF based on the report issued by the Central Bank. Branches and offices of lending institutions are subject to a list of terms and conditions issued by the Central Bank. Non-resident entities are allowed to accept deposits that do not exceed the ceiling of 1.5 per cent of the deposits held by deposit banks. The general manager or CEO of the bank must be Tunisian. |
| Yemen | Allowed. | Foreign entry through a subsidiary or acquisition requires approval of the Governor of Central Bank if foreign ownership is greater than 10 per cent. Licenses need to be renewed each year, and a decision on application should be given in 60 days. Labor law requires 75 per cent of employees to be Yemeni. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

## Table AII.9 Key restrictions on bank lending in Arab countries

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Algeria | Not allowed. | Primary entry through a branch and the acquisition of state-owned banks are not allowed. |
| Bahrain | This is allowed subject to domestic unavailability. Other restrictions on the loan, term, interest rate, and the industry may apply. | The limit on foreign ownership is 49 per cent if entry is through a subsidiary and/or acquisition. A controlling stake by a foreign bank is allowed if entry is through acquisition of an existing bank. Foreign acquisition of state-owned banks is not allowed. Due to Bahrainization policy, nationality requirements apply to employees and the Board of Directors. |
| Egypt | This is allowed, however transactions must go through licensed banks. | Entry is possible only through acquisition of an existing bank (applies to both Egyptians and foreigners). Expansion of existing Egyptian banks or foreign bank branches is allowed if the criteria specified by the Central Bank of Egypt are fulfilled. ENT applies to the primary entry of a foreign bank branch. There is no limit on foreign ownership for an acquisition. Entrants are allowed to employ one foreign worker for every ten nationals. |
| Jordan | Allowed. | There is no limit on foreign ownership. New licenses are no longer being issued to any applicant (domestic or foreign) due to market conditions. |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Kuwait | Allowed. | The foreign ownership limit is 49 per cent when entry is through a subsidiary and/or acquisition. Unless authorized by the Central bank, the direct or indirect ownership by a single natural person or legal entity in a Kuwaiti Bank shall not exceed five per cent of the bank's capital (non-discriminatory). A nationality requirement applies to employees (at least 39 per cent) and the Board of Directors (at least one member). |
| Lebanon | Allowed. | Entry through a branch is not allowed. A controlling stake in the shareholders' general assembly can be acquired by foreigners, however a controlling stake in the Board of Directors cannot be acquired by foreigners since the majority of the Board of Directors must be Lebanese. There is a limit on ATMs: the number of ATMs should not exceed the number of branches of the bank in the country (ATMs set up in the branch itself are not taken into account). |
| Morocco | This is allowed without limitation, provided loans are backed by investment or foreign trade transactions. Repayments must be made from Morocco through the banking system. | Licenses are issued at the discretion of the Central Bank. Foreign banks must provide a favorable opinion from the regulatory authority of the home country. The Central Bank ('Bank Al Maghreb') will need to be satisfied that the applicable rules and laws of the home country will not impede its control over the foreign bank's subsidiary or branch in Morocco. |
| Oman | Allowed. | Entry through acquisition of a state-owned bank is not allowed. The foreign ownership limit is 70 per cent. Any single foreign bank may not own more than 35 per cent of the voting shares in an Omani Bank. At least 90 per cent of employees must be Omani (this applies to both foreign and domestic companies). |
| Qatar | Allowed. | Foreign banks are generally not allowed to enter. Entry may be allowed only with the approval of the Council of Ministers. Establishment of retail banking in the Qatar Financial Centre (QFC) with 100 per cent foreign ownership is allowed, however retail banking service to residents is not allowed. |
| Saudi Arabia | Allowed. The supervisory agency (the Saudi Arabian Monetary Agency) must be notified. | The foreign ownership limit is 40 per cent. |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Tunisia | This is allowed, with restrictions. Credit establishments that are listed in the stock exchange (SE) are allowed to obtain a loan with maturity of more than 12 months without limits on the amount. Other firms listed in the SE can obtain a loan with maturity of more than 12 months in an amount up to USD 10 million per year. Credit establishments and other firms not listed in the SE can obtain a loan in the amount of up to USD 10 million per year for the first loan, and USD 3 million per year for subsequent loans. | Entry through a subsidiary is allowed, but is subject to approval of the MOF based on the report issued by the Central Bank. Branches and offices of lending institutions are subject to a list of terms and conditions issued by the Central Bank. Non-resident entities are allowed to accept deposits that do not exceed the ceiling of 1.5 per cent of the deposits held by deposit banks. The general manager or CEO of the bank must be Tunisian. |
| Yemen | Allowed. | Foreign entry through a subsidiary or acquisition requires approval of the Governor of Central Bank if foreign ownership is greater than 10 per cent. Licenses need to be renewed each year, and a decision on application should be given in 60 days. Labor law requires 75 per cent of employees to be Yemeni. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

## Table AII.10 Key restrictions on providing automobile insurance services in Arab countries

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Algeria | Not allowed. | Any person, local or foreign, must have the approval of the Ministry of Finance prior to any engagement to offer insurance services. There are no restrictions on the form of entry or limits on foreign ownership. The sector regulator is the Insurance Supervision Commission. |
| Bahrain | A foreign insurance company must be registered in Bahrain and obtain approval of the Central Bank. Local/domestic unavailability of the proposed services must be demonstrated. Other restrictions may apply. | The foreign ownership limit is 49 per cent if entry is through a subsidiary and/or acquisition. Control by foreign insurance companies is not allowed. Restrictions on employees apply. |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Egypt | Not allowed. | Branches are not permitted to transact insurance business in Egypt. Entry is allowed through an Egyptian stock company. Foreign ownership of more than 10 per cent of the issued capital equity of a company operating in Egypt requires approval of the Prime Minister. The foreign ownership limit if acquiring a domestic public entity is 60 per cent. There is no limit on foreign employees. |
| Jordan | Not allowed. | There are no restrictions. |
| Kuwait | Not allowed. | Entry through a branch is not allowed. The foreign ownership limit is 40 per cent if entry is through a subsidiary and/or acquisition. Control by foreign insurance companies is not allowed; 15 per cent of employees and the chairman must be nationals. |
| Lebanon | Not allowed. | There are no restrictions, except that 97 per cent of employees and 51 per cent of the Board of Directors must be nationals. |
| Morocco | Not allowed. | Entry through a branch is not allowed. Entry through a subsidiary (with foreign ownership of 100 per cent) is allowed if the home country entered into an FTA with Morocco. The MOF has discretionary power in allocating insurance licenses, and it can reject a license subject to market conditions and competition. The insurance federation has an official seat in the Insurance Authority ('DAPS') and it can bar the entry of foreign insurers. |
| Oman | Not allowed. | Entry through acquisition of a state-owned entity is not allowed. The foreign ownership limit is 70 per cent. Foreign insurers in the Omani market must cede 25 per cent of their policies to a domestic insurer. A certain percentage of employees must be Omani. |
| Qatar | Not allowed. | Foreign insurers are generally not allowed to enter. However, exceptions can be granted upon approval of the Council of Ministers. Also, entry of a foreign insurer is possible in the Qatar Financial Center, which was established in 2005. |
| Saudi Arabia | This is allowed, subject to domestic unavailability. | The foreign ownership limit is 49 per cent. |
| Tunisia | This is not allowed, except for the professional liability insurance of a maritime carrier or maritime ship owner that might be purchased from abroad in exceptional cases, with the permission of the MOF. | Branches of foreign suppliers can only serve non-residents. There is a minimum capital requirement and approval of the license depends on technical and financial feasibility, economic justification and the timeliness of establishing a new business. The chairman of the Board of Directors or the general director must be Tunisian. |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Yemen | Not allowed. | Entry through a branch is not allowed. The limit on foreign ownership above 25 per cent requires approval of Ministry of Industry and Trade. Licenses must be renewed each year. Labor law requires 75 per cent of employees to be Yemeni. The sector regulator is the Department of Supervision on Insurance Companies. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

## Table AII.11 Key restrictions on providing life insurance services in Arab countries

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Algeria | Not allowed. | Any person, local or foreign, must have the approval of the Ministry of Finance prior to any engagement to offer insurance services. There are no restrictions on the form of entry or limits on foreign ownership. The sector regulator is the Insurance Supervision Commission. |
| Bahrain | A foreign insurance company must be registered in Bahrain and obtain approval of the Central Bank. Local/domestic unavailability of the proposed services must be demonstrated. Other restrictions may apply. | The foreign ownership limit is 49 per cent if entry is through a subsidiary and/or acquisition. Control by foreign insurance companies is not allowed. Restrictions on employees apply. |
| Egypt | Allowed. | Branches are not permitted to transact insurance business in Egypt. Entry is allowed through an Egyptian stock company. Foreign ownership of more than 10 per cent of the issued capital equity of a company operating in Egypt requires approval of the Prime Minister. The foreign ownership limit if acquiring a domestic public entity is 60 per cent. There is no limit on foreign employees. |
| Jordan | Not allowed. | There are no restrictions. |
| Kuwait | Not allowed. | Entry through a branch is not allowed. The foreign ownership limit is 40 per cent if entry is through a subsidiary and/or acquisition. Control by foreign insurance companies is not allowed; 15 per cent of employees and the chairman must be nationals. |
| Lebanon | Not allowed. | There are no restrictions, except that 97 per cent of employees and 51 per cent of the Board of Directors must be nationals. |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Morocco | Not allowed. | Entry through a branch is not allowed. Entry through a subsidiary (with foreign ownership of 100 per cent) is allowed if the home country entered into an FTA with Morocco. The MOF has discretionary power in allocating insurance licenses, and it can reject a license subject to market conditions and competition. The insurance federation has an official seat in the Insurance Authority ('DAPS') and it can bar the entry of foreign insurers. |
| Oman | Not allowed. | Entry through acquisition of a state-owned entity is not allowed. The foreign ownership limit is 70 per cent. Foreign insurers in the Omani market must cede 25 per cent of their policies to a domestic insurer. A certain percentage of employees must be Omani. |
| Qatar | Not allowed. | Foreign insurers are generally not allowed to enter. However, exceptions can be granted upon approval of the Council of Ministers. Also, entry of a foreign insurer is possible in the Qatar Financial Center, which was established in 2005. |
| Saudi Arabia | This is allowed, subject to domestic unavailability. | The foreign ownership limit is 49 per cent. |
| Tunisia | Not allowed. | Branches of foreign suppliers can only serve non-residents. There is a minimum capital requirement and approval of the license depends on technical and financial feasibility, economic justification and the timeliness of establishing a new business. The chairman of the Board of Directors or the general director must be Tunisian. |
| Yemen | Not allowed. | Entry through a branch is not allowed. The limit on foreign ownership above 25 per cent requires approval of Ministry of Industry and Trade. Licenses must be renewed each year. Labor law requires 75 per cent of employees to be Yemeni. The sector regulator is the Department of Supervision on Insurance Companies. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

**Table AII.12** Key restrictions on providing reinsurance services in Arab countries

| Country | Mode 1 | Mode 3 |
|---|---|---|
| Algeria | Not allowed. | Any person, local or foreign, must have the approval of the Ministry of Finance prior to any engagement to offer insurance services. There are no restrictions on the form of entry or limits on foreign ownership. Foreign companies are obliged to cede five to ten per cent of insurance to a domestic re-insurer. The sector regulator is the Insurance Supervision Commission. |
| Bahrain | Applicants must demonstrate domestic unavailability of the proposed services. They are also obliged to cede domestically; other restrictions may apply. | The foreign ownership limit is 49 per cent if entry is through a subsidiary and/or acquisition. Control by foreign insurance companies is not allowed. Restrictions on employees apply. |
| Egypt | Cession must be placed with a reinsurer appearing on the approved list issued annually by the supervisory authority. Prior approval is required from Egyptian Insurance Supervisory Authority (EISA) to use any reinsurer not appearing on the list, provided that reinsurer has a rating of at least B++ from AM and S&P. If the reinsurer is not rated, additional requirements with respect to their minimum capital and technical reserves apply. | Branches are not permitted to transact insurance business in Egypt. Entry is allowed through an Egyptian stock company. Foreign ownership of more than 10 per cent of the issued capital equity of a company operating in Egypt requires approval of the Prime Minister. The foreign ownership limit if acquiring a domestic public entity is 60 per cent. The sector regulator is Egypt's Insurance Supervisory Authority. |
| Jordan | Allowed. | There are no restrictions. |
| Kuwait | Allowed. | Entry through a branch is not allowed. The foreign ownership limit is 40 per cent if entry is through a subsidiary and/or acquisition. Control by foreign insurance companies is not allowed; 15 per cent of employees and the chairman must be nationals. |
| Lebanon | Allowed. | There are no restrictions, except that no more than three foreign employees are allowed. Reinsurers must have at least a B rating from a recognized rating agency. The majority of the Board of Directors must be nationals. |
| Morocco | Allowed. | Entry through a branch is not allowed. The MOF has discretionary power in allocating insurance licenses, and it can reject a license subject to market conditions and competition. The insurance federation has an official seat |

| Country | Mode 1 | Mode 3 |
|---|---|---|
| | | in the Insurance Authority ('DAPS') and it can bar the entry of foreign insurers. |
| Oman | Not allowed. | Entry through acquisition of a state-owned entity is not allowed. The foreign ownership limit is 70 per cent. Foreign insurers in the Omani market must cede 25 per cent of their policies to a domestic insurer. A certain percentage of employees must be Omani. |
| Qatar | Not allowed. | Foreign insurers are generally not allowed to enter. However, exceptions can be granted upon approval of the Council of Ministers. Also, entry of a foreign insurer is possible in the Qatar Financial Center, which was established in 2005. |
| Saudi Arabia | Cession requirement is 30 per cent to a domestic reinsurer. | The foreign ownership limit is 49 per cent. Cession requirement is 30 per cent, unless Saudi Arabian Monetary Agency's (SAMA) consent to the contrary is obtained; 75 per cent of employees must be nationals. |
| Tunisia | Allowed. | Branches of foreign suppliers can only serve non-residents. There is a minimum capital requirement and approval of the license depends on technical and financial feasibility, economic justification and the timeliness of establishing a new business. The chairman of the Board of Directors or the general director must be Tunisian. |
| Yemen | This is allowed, subject to restrictions: insurers must cede a certain percentage of their insurance to a domestic re-insurer. The percentage is determined by the Minister of Industry and Trade. | Entry through a branch is not allowed. The limit on foreign ownership above 25 per cent requires approval of Ministry of Industry and Trade. Licenses must be renewed each year. Labor law requires 75 per cent of employees to be Yemeni. The cession percentage is determined by the Minister of Industry and Trade. The majority of the Board of Directors must be nationals (this is subject to amendment by the Minister on ground of foreign ownership). The sector regulator is the Department of Supervision on Insurance Companies. |

**Source:** Borchert, Gootiiz and Mattoo, 2012.

# Annex III. Detailed results of the linkages between trade regulations and FDI inflows

**Table AIII.1** Description of variables used in the estimations

| | Total |
|---|---|
| Capex_const | Destination country's FDI adjusted to constant price |
| Log(Capex) | Logarithms of Capex_Const |
| Log(FDI_Stock) | |
| Log(Export) | Logarithms of destination country's export of agricultural, Mining, and manufacturing products adjusted to constant price |
| Log(GDP_Sour) | Logarithms of FDI source country's GDP in constant US dollar |
| Log(GDP_Dest) | Logarithms of FDI destination country's GDP in constant US dollar |
| Log(Distance) | Logarithms of Distance between source and destination countries |
| Log(GDP_pc_Dest) | Logarithms of FDI destination country's GDP per capita in constant US dollar |
| Log(GDP_pc_gap) | The gap in GDP per capita between source country and destination country, measured as the logarithms of the ratio between source country GDP per capita to destination GDP Per capita |
| Service_GDP_%_Dest | Destination country's share of service sector in its GDP |
| Service_GDP_gap | The gap in the shares of service sector in GDP between source and destination countries, calculated as the difference between source and destination shares of service sector in their GDP |
| Arab_Dest | =1 if a destination country is a Arab country, otherwise =0 |
| Log(STRI_overall) | Logarithms of a destination country's overall Service Trade Restriction Index |
| Lnoverall_~b | Interaction term between Arab_dest and Log(Str_overall) |
| Log(Mode 1) | Logaithms of a destination country's Mode1 STRI |
| Log(Mode 3) | Logarithms of a destination country's Mode 3 STRI |
| Lnmode1_arab | Interaction term between log(mode 1) and Arab_dest |
| Lnmode3_arab | Interaction term between log(Mode 3) and Arab_dest |
| Log(STRI_sec_all) | Sectoral overall STRI |
| Log(STRI_sec_mode1) | Sectoral STRI for Mode 1 type of trade in services |
| Log(STRI_sec_mode3) | Sectoral STRI for Mode 3 type of trade in services |
| Ln(DBR_Score) | Logarithms of World Bank's Doing Business Score |
| LnDBR_arab | Interaction between Log(DBR) and Arab_dest |
| Tariff rate | Weighted average tariff rate applied |
| Contig | =1 if destination and sources countries are contiguous |

| | Total |
|---|---|
| Com_Lang_Off | =1 if destination and source countries share a common official language, 0 otherwise |
| Com_Lang_Ethno | =1 if a common language is spoken by at least 9 per cent of the population in both destination and source countries |
| Colony | =1 if destination and source countries have ever had a colonial link, 0 otherwise |
| Com_Col | =1 if destination and source countries have had a common colonizer |
| Cur_col | =1 if destination and source countries are currently in a colonial relationship, 0 otherwise |
| Col45 | =1 if destination and source countries have had a colonial relationship after 1945, 0 otherwise |
| CU | =1 if both destination and source countries belong to the same Customs Union (CU), 0 otherwise |
| FTA | =1 if there is a Free Trade Agreement between destination and source countries, 0 otherwise |
| EIA | =1 if there is an Economic Integration Agreement between destination and source countries, 0 otherwise |
| PS | =1 if there is a "Partial Scope" Agreement (PS) between destination and source countries, which covers only certain products, 0 otherwise |

**Table AIII.2** The determinants of FDI inflows in services

| | With overall STRI | | Overall STRI interact with Arab | | With Mode 1 and 3 STRI | | Mode 1 and 3 STRI interact with Arab | |
|---|---|---|---|---|---|---|---|---|
| | OLS | PPML | OLS | PPML | OLS | PPML | OLS | PPML |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Log(GDP_Sour) | 0.23*** | 0.83*** | 0.23*** | 0.83*** | 0.23*** | 0.84*** | 0.23*** | 0.84*** |
| Log(GDP_dest) | 0.26*** | 0.89*** | 0.26*** | 0.90*** | 0.28*** | 0.92*** | 0.28*** | 0.94*** |
| Log(Distance) | -0.25*** | -0.57*** | -0.25*** | -0.57*** | -0.25*** | -0.58*** | -0.25*** | -0.58*** |
| Log(GDP_pc_des) | -0.18*** | -0.52*** | -0.18*** | -0.57*** | -0.18*** | -0.51*** | -0.18*** | -0.55*** |
| Log(GDP_pc_gap) | 0.08*** | 0.25*** | 0.08*** | 0.25*** | 0.08*** | 0.25*** | 0.08*** | 0.25*** |
| Service_GDP_%_I | 0.00 | 0.02*** | 0.00 | 0.02*** | 0.00 | 0.02*** | 0.00 | 0.02*** |
| Service_GDP_gap | 0.01*** | 0.03*** | 0.01*** | 0.03*** | 0.01*** | 0.03*** | 0.01*** | 0.03*** |
| Arab_destination | 0.20* | 0.38*** | | | 0.24** | 0.40*** | | |
| Log(STRI_overall) | -0.09 | -0.57*** | -0.09 | -0.63*** | | | | |
| Log(overall)*Arab | | | -0.07 | 0.91*** | | | | |
| Log(Mode 1) | | | | | 0.00 | -0.03*** | 0.01 | 0.01*** |
| Log(Mode 3) | | | | | -0.16** | -0.57*** | -0.16** | -0.66*** |
| Log(Mode1)*Arab | | | | | | | -0.20 | -0.54*** |
| Log(Mode3)*Arab | | | | | | | -0.05 | 0.73*** |
| Log(DBR_Score) | 0.85*** | 3.16*** | 0.83*** | 3.40*** | 0.76*** | 2.98*** | 0.73*** | 3.14*** |
| Log(DBR)*Arab | | | 0.11 | -0.70*** | | | 0.28 | -0.06*** |
| Contig | 0.20* | -0.36*** | 0.20* | -0.35*** | 0.20* | -0.35*** | 0.19* | -0.36*** |
| Comlang_off | 0.20* | 0.87*** | 0.20* | 0.90*** | 0.19* | 0.90*** | 0.20* | 0.98*** |

| | With overall STRI | | Overall STRI interact with Arab | | With Mode 1 and 3 STRI | | Mode 1 and 3 STRI interact with Arab | |
|---|---|---|---|---|---|---|---|---|
| | OLS | PPML | OLS | PPML | OLS | PPML | OLS | PPML |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Comlang_eth | 0.13 | -0.13*** | 0.13 | -0.16*** | 0.15 | -0.14*** | 0.15 | -0.19*** |
| Colony | 0.61*** | 0.47*** | 0.62*** | 0.45*** | 0.61*** | 0.45*** | 0.61*** | 0.42*** |
| Comcol | 0.65*** | 1.08*** | 0.66*** | 1.08*** | 0.66*** | 1.10*** | 0.66*** | 1.09*** |
| Curcol | 0.41* | 0.05 | 0.41* | 0.01 | 0.39* | 0.04 | 0.39* | -0.01 |
| Col45 | -0.37 | -0.11*** | -0.37 | -0.06*** | -0.37 | -0.10*** | -0.37 | -0.02*** |
| CU | -0.23* | -0.29*** | -0.23* | -0.29*** | -0.23* | -0.28*** | -0.23* | -0.26*** |
| FTA | -0.03 | 0.19*** | -0.03 | 0.20*** | -0.03 | 0.19*** | -0.03 | 0.22*** |
| EIA | 0.14 | 0.06*** | 0.14 | 0.06*** | 0.13 | 0.06*** | 0.13 | 0.04*** |
| PS | 0.15 | 0.70*** | 0.15 | 0.71*** | 0.16 | 0.70*** | 0.16 | 0.71*** |
| Const | -9.75*** | -47.34*** | -9.67*** | -48.07*** | -9.49*** | -47.41*** | -9.42*** | -48.01*** |
| No. of Observations | 13,804 | 55,261 | 13,804 | 55,261 | 13,752 | 54,842 | 13,752 | 54,842 |

**Source:** Author's calculations.
**Note:** *, ** and *** represent statistical significance levels at 10, 5 and 1 per cent levels, respectively.

## Table AIII.3 The determinants of FDI inflows in services from OECD countries

| | With overall STRI | | Overall STRI interact with Arab | | With Mode 1 and 3 STRI | | Mode 1 and 3 STRI interact with Arab | |
|---|---|---|---|---|---|---|---|---|
| | OLS | PPML | OLS | PPML | OLS | PPML | OLS | PPML |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Log(GDP_Sour) | 0.38*** | 0.92*** | 0.38*** | 0.92*** | 0.38*** | 0.93*** | 0.38*** | 0.93*** |
| Log(GDP_dest) | 0.38*** | 0.94*** | 0.39*** | 0.95*** | 0.39*** | 0.97*** | 0.40*** | 0.98*** |
| Log(Distance) | -0.35*** | -0.55*** | -0.35*** | -0.55*** | -0.34*** | -0.56*** | -0.35*** | -0.56*** |
| Log(GDP_pc_des) | -0.07 | 0.01* | -0.09 | -0.03*** | -0.06 | 0.02*** | -0.09 | -0.03*** |
| Log(GDP_pc_gap) | 0.26*** | 0.91*** | 0.26*** | 0.90*** | 0.27*** | 0.90*** | 0.27*** | 0.90*** |
| Service_GDP_%_I | 0.03*** | 0.05*** | 0.03*** | 0.05*** | 0.03*** | 0.05*** | 0.03*** | 0.05*** |
| Service_GDP_gap | 0.04*** | 0.05*** | 0.04*** | 0.05*** | 0.04*** | 0.05*** | 0.04*** | 0.05*** |
| Arab_destination | 0.15 | 0.35*** | | | 0.19 | 0.36*** | | |
| Log(STRI_overall) | -0.12 | -0.54*** | -0.14 | -0.58*** | | | | |
| Log(overall)*Arab | | | 0.31 | 0.78*** | | | | |
| Log(Mode 1) | | | | | -0.02 | -0.01** | -0.01 | 0.02*** |
| Log(Mode 3) | | | | | -0.17** | -0.55*** | -0.20** | -0.62*** |
| Log(Mode1)*Arab | | | | | | | -0.14 | 0 |
| Lnmode3_arab | | | | | | | 0.3 | 0.74*** |
| Ln(DBR_Score) | 1.52*** | 3.61*** | 1.60*** | 3.79*** | 1.44*** | 3.41*** | 1.51*** | 3.61*** |
| Lndbrscore*Arab | | | -0.24 | -0.59*** | | | -0.1 | -0.53*** |
| Contig | 0.23 | -0.46*** | 0.23 | -0.45*** | 0.24 | -0.44*** | 0.23 | -0.43*** |
| Comlang_off | 0.22 | 0.79*** | 0.24 | 0.82*** | 0.19 | 0.84*** | 0.23 | 0.89*** |
| Comlang_eth | 0.01 | -0.25*** | 0 | -0.28*** | 0.05 | -0.28*** | 0.02 | -0.32*** |
| Colony | 0.90*** | 0.55*** | 0.89*** | 0.54*** | 0.91*** | 0.54*** | 0.90*** | 0.52*** |
| Comcol | 1.62*** | 4.07*** | 1.62*** | 4.07*** | 1.61*** | 4.05*** | 1.61*** | 4.05*** |

| | With overall STRI | | Overall STRI interact with Arab | | With Mode 1 and 3 STRI | | Mode 1 and 3 STRI interact with Arab | |
|---|---|---|---|---|---|---|---|---|
| | OLS | PPML | OLS | PPML | OLS | PPML | OLS | PPML |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Col45 | -0.64** | -0.37*** | -0.63** | -0.33*** | -0.64** | -0.35*** | -0.63** | -0.30*** |
| CU | -0.36* | -0.07*** | -0.35* | -0.07*** | -0.35* | -0.06*** | -0.34* | -0.05*** |
| FTA | -0.05 | 0.14*** | -0.05 | 0.15*** | -0.05 | 0.15*** | -0.04 | 0.17*** |
| EIA | 0.16 | 0.09*** | 0.16 | 0.09*** | 0.16 | 0.07*** | 0.15 | 0.07*** |
| PS | 0.82*** | 1.42*** | 0.82*** | 1.43*** | 0.81*** | 1.40*** | 0.82*** | 1.40*** |
| Const | -21.95*** | -61.21*** | -22.24*** | -61.77*** | -21.80*** | -61.15*** | -22.15*** | -61.86*** |
| No. of observations | 9,334 | 28,831 | 9,334 | 28,831 | 9,300 | 28,603 | 9,300 | 28,603 |

**Source:** Author's calculations.
**Note:** *, ** and *** represent statistical significance levels at 10, 5 and 1 per cent levels, respectively.

## Table AIII.4 The determinants of FDI inflows in business services

| | All country pairs | | | | OECD countries as sources of FDI | | | |
|---|---|---|---|---|---|---|---|---|
| | Overall | Overall *Arab | Mode 1&3 | Mode *Arab | Overall | Overall *Arab | Mode 1&3 | Mode *Arab |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Log(GDP_Sour) | 0.19*** | 0.19*** | 0.24*** | 0.24*** | 0.23*** | 0.23*** | 0.27*** | 0.27*** |
| Log(GDP_dest) | 0.20*** | 0.20*** | 0.21*** | 0.23*** | 0.22*** | 0.22*** | 0.27*** | 0.28*** |
| Log(Distance) | -0.09 | -0.1 | -0.16* | -0.17* | -0.17** | -0.17** | -0.19* | -0.20* |
| Log(GDP_pc_des) | -0.13* | -0.13* | -0.08 | -0.09 | 0 | 0.01 | 0.09 | 0.1 |
| Log(GDP_pc_gap) | 0.05 | 0.04 | 0.11** | 0.11* | 0.14 | 0.14 | 0.26* | 0.27* |
| Service_GDP_%_I | 0 | 0 | 0.01 | 0.01 | 0.01* | 0.02* | 0.02* | 0.02* |
| Service_GDP_gap | 0.01** | 0.01** | 0.01* | 0.01* | 0.02*** | 0.02*** | 0.02*** | 0.02*** |
| Arab_destination | 0.53*** | | 0.54*** | | 0.46*** | | 0.47*** | |
| Log(STRI_overall) | 0.04 | 0.05 | | | 0.11 | 0.14 | | |
| Log(overall)*Arab | | -0.27 | | | | -0.51* | | |
| Log(Mode 1) | | | -0.11* | -0.13* | | | -0.05 | -0.08 |
| Log(Mode 3) | | | -0.33*** | -0.36*** | | | -0.33*** | -0.36*** |
| Log(Mode1)*Arab | | | | 0.64* | | | | 0.88** |
| Log(Mode3)*Arab | | | | 0.07 | | | | -0.14 |
| Ln(DBR_Score) | 0.35 | 0.27 | -0.37 | -0.46 | 0.58 | 0.47 | -0.05 | -0.29 |
| Ln(DBR)*Arab | | 0.39* | | -0.52 | | 0.62** | | -0.54 |
| Contig | -0.07 | -0.07 | -0.15 | -0.14 | -0.19 | -0.19 | -0.23 | -0.24 |
| Comlang_off | 0.30** | 0.29* | 0.29* | 0.28 | 0.43** | 0.41** | 0.35 | 0.33 |
| Comlang_eth | 0.04 | 0.05 | 0.14 | 0.15 | -0.09 | -0.07 | 0 | 0.02 |
| Colony | 0.26 | 0.27 | 0.28 | 0.28 | 0.33 | 0.35 | 0.47 | 0.48 |
| Comcol | 0.63*** | 0.62*** | 0.74*** | 0.70*** | 0.58* | 0.59* | 0.68* | 0.69* |
| Col45 | 0.29 | 0.3 | 0.11 | 0.12 | 0 | 0 | 0 | 0 |
| CU | -0.01 | -0.02 | -0.01 | -0.03 | 0 | -0.03 | -0.02 | -0.08 |
| FTA | -0.19 | -0.19 | -0.37* | -0.37* | -0.51** | -0.51** | -0.58** | -0.57** |
| EIA | -0.03 | -0.03 | -0.08 | -0.09 | -0.15 | -0.14 | -0.14 | -0.14 |

| | All country pairs | | | | OECD countries as sources of FDI | | | |
|---|---|---|---|---|---|---|---|---|
| | Overall | Overall *Arab | Mode 1&3 | Mode *Arab | Overall | Overall *Arab | Mode 1&3 | Mode *Arab |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| PS | 0.03 | 0.03 | 0.12 | 0.13 | 0.1 | 0.1 | 0.23 | 0.24 |
| Const | -0.07 | -0.07 | 0.18 | 0.18 | -0.04 | -0.03 | 0.3 | 0.27 |
| No. of observations | 4,776 | 4,776 | 3,210 | 3,210 | 3,820 | 3,820 | 2,607 | 2,607 |

**Source:** Author's calculations.
**Note:** *, ** and *** represent statistical significance levels at 10, 5 and 1 per cent levels, respectively.

## Table AIII.5 The determinants of FDI inflows in financial services

| | All country pairs | | | | OECD countries as sources of FDI | | | |
|---|---|---|---|---|---|---|---|---|
| | Overall | Overall *Arab | Mode 1&3 | Mode *Arab | Overall | Overall *Arab | Mode 1&3 | Mode *Arab |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Log(GDP_Sour) | 0.10*** | 0.10*** | 0.11*** | 0.12*** | 0.18*** | 0.18*** | 0.17*** | 0.17*** |
| Log(GDP_dest) | 0.17*** | 0.17*** | 0.22*** | 0.22*** | 0.21*** | 0.21*** | 0.27*** | 0.27*** |
| Log(Distance) | -0.09* | -0.08* | -0.1 | -0.09 | -0.09 | -0.09 | -0.09 | -0.09 |
| Log(GDP_pc_des) | -0.07 | -0.10* | 0.01 | -0.02 | 0.14 | 0.14 | 0.11 | 0.1 |
| Log(GDP_pc_gap) | -0.03 | -0.03 | -0.02 | -0.02 | 0.18* | 0.18* | 0.13 | 0.14 |
| Service_GDP_%_I | 0 | 0 | 0 | 0 | 0.01 | 0.01 | 0.01 | 0.01 |
| Service_GDP_gap | 0.00* | 0.01* | 0.01* | 0.01* | 0.01* | 0.01* | 0.02* | 0.02* |
| Arab_destination | -0.48*** | | -0.57*** | | -0.59*** | | -0.49** | |
| Log(STRI_overall) | -0.04 | -0.04 | | | 0.04 | 0.04 | | |
| Log(overall)*Arab | | 0.19 | | | | -0.01 | | |
| Log(Mode 1) | | | 0.21*** | 0.26*** | | | 0.16* | 0.20* |
| Log(Mode 3) | | | -0.25*** | -0.31*** | | | -0.21* | -0.25** |
| Log(Mode1)*Arab | | | | -0.19 | | | | -0.17 |
| Log(Mode3)*Arab | | | | 0.37* | | | | 0.25 |
| Ln(DBR_Score) | -0.87** | -0.77** | -1.54*** | -1.37*** | -0.97* | -0.93* | -1.42** | -1.28* |
| Lndbrscore*Arab | | -0.28* | | -0.27 | | -0.13 | | -0.17 |
| Contig | 0.05 | 0.05 | 0.02 | 0.02 | 0.03 | 0.03 | 0.32 | 0.3 |
| Comlang_off | 0.03 | 0.04 | 0.06 | 0.1 | 0.03 | 0.04 | 0.17 | 0.22 |
| Comlang_eth | 0.03 | 0.02 | -0.03 | -0.06 | -0.07 | -0.07 | -0.13 | -0.16 |
| Colony | 0.25 | 0.25 | 0.41* | 0.37 | 0.35* | 0.34* | 0.44 | 0.4 |
| Comcol | -0.09 | -0.1 | -0.05 | -0.05 | 1.55*** | 1.55*** | 1.22*** | 1.24*** |
| Col45 | 0.27 | 0.27 | | | 0 | 0 | | |
| CU | -0.23 | -0.23 | -0.59** | -0.53* | -0.43* | -0.43* | -0.58* | -0.53* |
| FTA | -0.25** | -0.25** | 0.06 | 0.07 | -0.26 | -0.26 | -0.27 | -0.25 |
| EIA | 0.04 | 0.04 | 0.07 | 0.07 | -0.08 | -0.09 | -0.30* | -0.29* |
| PS | 0.08 | 0.08 | 0.08 | 0.07 | 0.21 | 0.22* | 0.36* | 0.35* |
| Const | 0.11 | 0.12 | 0.04 | 0.07 | 0.75** | 0.76** | 0.73** | 0.75** |
| No. of observations | 5,101 | 5,101 | 3,099 | 3,099 | 3,338 | 3,338 | 1,881 | 1,881 |

**Source:** Author's calculations.
**Note:** *, ** and *** represent statistical significance levels at 10, 5 and 1 per cent levels, respectively.

**Table AIII.6** The determinants of FDI inflows in telecommunication services

| | All country pairs | | | | OECD countries as sSources of FDI | | | |
|---|---|---|---|---|---|---|---|---|
| | Overall | Overall *Arab | Mode 1&3 | Mode *Arab | Overall | Overall *Arab | Mode 1&3 | Mode *Arab |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Log(GDP_Sour) | 0.05 | 0.05 | 0.05 | 0.05 | 0.15** | 0.15** | 0.15** | 0.15** |
| Log(GDP_Dest) | 0.08* | 0.07* | 0.08* | 0.07* | 0.11** | 0.11* | 0.11** | 0.11* |
| Log(Distance) | 0.04 | 0.04 | 0.04 | 0.04 | 0 | 0 | 0 | 0 |
| Log(GDP_pc_des) | -0.15 | -0.15 | -0.15 | -0.15 | 0.08 | 0.09 | 0.08 | 0.09 |
| Log(GDP_pc_gap) | -0.1 | -0.1 | -0.1 | -0.1 | 0.18 | 0.18 | 0.18 | 0.18 |
| Service_GDP_%_I | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 |
| Service_GDP_gap | 0.02*** | 0.02*** | 0.02*** | 0.02*** | 0.03** | 0.03** | 0.03** | 0.03** |
| Arab_destination | -0.40** | | -0.40** | | -0.51** | | -0.51** | |
| Log(STRI_overall) | 0.08 | 0.09 | | | 0.23 | 0.25 | | |
| Log(overall)*Arab | | -0.03 | | | | -0.12 | | |
| Log(Mode 3) | | | 0.08 | 0.09 | | | 0.23 | 0.25 |
| Log(Mode3)*Arab | | | | -0.03 | | | | -0.12 |
| Ln(DBR_Score) | -0.28 | -0.28 | -0.28 | -0.28 | -0.03 | -0.05 | -0.03 | -0.05 |
| Lndbrscore*Arab | | -0.07 | | -0.07 | | -0.02 | | -0.02 |
| Contig | 0.03 | 0.03 | 0.03 | 0.03 | -0.02 | -0.02 | -0.02 | -0.02 |
| Comlang_off | 0.08 | 0.08 | 0.08 | 0.08 | 0.28 | 0.28 | 0.28 | 0.28 |
| Comlang_eth | 0.11 | 0.11 | 0.11 | 0.11 | -0.1 | -0.11 | -0.1 | -0.11 |
| Colony | 0.52* | 0.52* | 0.52* | 0.52* | 0.60* | 0.61* | 0.60* | 0.61* |
| Comcol | 0.59** | 0.59** | 0.59** | 0.59** | 0 | 0 | 0 | 0 |
| Col45 | -0.33 | -0.33 | -0.33 | -0.33 | -0.49 | -0.49 | -0.49 | -0.49 |
| CU | 0.05 | 0.06 | 0.05 | 0.06 | -0.53 | -0.52 | -0.53 | -0.52 |
| FTA | 0.21 | 0.21 | 0.21 | 0.21 | -0.03 | -0.04 | -0.03 | -0.04 |
| EIA | 0.08 | 0.09 | 0.08 | 0.09 | 0.49* | 0.50* | 0.49* | 0.50* |
| PS | 0.05 | 0.05 | 0.05 | 0.05 | 0.35 | 0.35 | 0.35 | 0.35 |
| Const | 1.03 | 1.03 | 1.03 | 1.03 | -7.19* | -7.17* | -7.19* | -7.17* |
| No. of observations | 2,008 | 2,008 | 2,008 | 2,008 | 1,389 | 1,389 | 1,389 | 1,389 |

**Source:** Author's calculations.
**Note:** *, ** and *** represent statistical significance levels at 10, 5 and 1 per cent levels, respectively.

**Table AIII.7** The determinants of FDI inflows in transportation services

| | All country pairs | | | | OECD countries as sources of FDI | | | |
|---|---|---|---|---|---|---|---|---|
| | Overall | Overall *Arab | Mode 1&3 | Mode *Arab | Overall | Overall *Arab | Mode 1&3 | Mode *Arab |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Log(GDP_Sour) | 0.12*** | 0.12*** | 0.18*** | 0.18*** | 0.14*** | 0.14*** | 0.19*** | 0.19*** |
| Log(GDP_dest) | 0.20*** | 0.20*** | 0.29*** | 0.30*** | 0.26*** | 0.26*** | 0.33*** | 0.34*** |
| Log(Distance) | -0.11 | -0.11 | -0.18* | -0.18* | -0.16* | -0.16* | -0.22* | -0.21* |
| Log(GDP_pc_des) | -0.24*** | -0.25*** | -0.21** | -0.24** | -0.04 | -0.05 | -0.09 | -0.12 |
| Log(GDP_pc_gap) | 0.03 | 0.03 | -0.02 | -0.02 | 0.25* | 0.25* | 0.16 | 0.16 |
| Service_GDP_%_I | 0 | 0 | -0.01 | -0.01 | 0 | 0 | -0.01 | 0 |
| Service_GDP_gap | 0.01 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arab_destination | -0.39** | | -0.46** | | -0.29 | | -0.36* | |
| Log(STRI_overall) | -0.18** | -0.18** | | | -0.14* | -0.15* | | |
| Log(overall)*Arab | | 0.29 | | | | 0.4 | | |
| Log(Mode 1) | | | 0.11 | 0.13 | | | -0.01 | 0 |
| Log(Mode 3) | | | -0.18** | -0.19** | | | -0.15* | -0.16* |
| Log(Mode1)*Arab | | | | -0.15 | | | | -0.11 |
| Log(Mode3)*Arab | | | | 0.42 | | | | 0.36 |
| Ln(DBR_Score) | 0.04 | 0.13 | 0.03 | 0.19 | 0.2 | 0.33 | 0.27 | 0.43 |
| Lndbrscore*Arab | | -0.36 | | -0.38 | | -0.44 | | -0.33 |
| Contig | 0.12 | 0.12 | 0.08 | 0.08 | -0.18 | -0.18 | -0.04 | -0.04 |
| Comlang_off | -0.28 | -0.28 | -0.1 | -0.09 | -0.21 | -0.2 | 0.02 | 0.03 |
| Comlang_eth | 0.19 | 0.19 | 0.11 | 0.1 | 0.25 | 0.25 | 0.14 | 0.13 |
| Colony | 0.27 | 0.26 | 0.34 | 0.33 | 0.26 | 0.25 | 0.23 | 0.22 |
| Comcol | 0.65*** | 0.64*** | 0.63*** | 0.61** | 1.19*** | 1.18*** | 1.31*** | 1.30*** |
| Col45 | -0.15 | -0.15 | -0.34 | -0.33 | -0.18 | -0.17 | -0.3 | -0.3 |
| CU | -0.17 | -0.16 | -0.12 | -0.1 | -0.42 | -0.42 | -0.38 | -0.35 |
| FTA | 0.05 | 0.05 | 0 | 0.01 | -0.18 | -0.19 | -0.2 | -0.18 |
| EIA | -0.02 | -0.02 | 0 | -0.01 | 0.21 | 0.21 | 0.15 | 0.14 |
| PS | -0.05 | -0.05 | -0.28 | -0.28 | -0.39 | -0.39 | -0.5 | -0.49 |
| Const | -1.73 | -2.04 | -5.05** | -5.74** | -6.58** | -7.04** | -8.71*** | -9.39*** |
| No. of observations | 3,262 | 3,262 | 2,351 | 2,351 | 2,611 | 2,611 | 1,861 | 1,861 |

**Source:** Author's calculations.
**Note:** *, ** and *** represent statistical significance levels at 10, 5 and 1 per cent levels, respectively.

**Table AIII.8** The determinants of merchandise exports in 2016

| | All country pairs | | | OECD as sources of FDI | | |
|---|---|---|---|---|---|---|
| | Without Arab dummy | With Arab dummy | With Arab dummy and interaction with FDI stock | Without Arab dummy | With Arab dummy | With Arab dummy and interaction with FDI stock |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Log(GDP_FDI_source) | 0.81*** | 0.81*** | 0.81*** | 0.81*** | 0.82*** | 0.82*** |
| Log(GDP_FDI_Dest) | 0.85*** | 0.78*** | 0.79*** | 0.79*** | 0.72*** | 0.73*** |
| Log(Distance) | -0.58*** | -0.61*** | -0.61*** | -0.53*** | -0.57*** | -0.57*** |
| Log(GDP_PC_FDI_Dest) | -0.11* | -0.05 | -0.05 | -0.63*** | -0.55*** | -0.53*** |
| GDP_PC_Gap | -0.28*** | -0.27*** | -0.27*** | -0.85*** | -0.82*** | -0.80*** |
| Arab country | | -0.69*** | -1.17*** | | -0.90*** | -1.46*** |
| Log(FDI_Serv_stock_from _Source) | 0.10*** | 0.10*** | 0.08*** | 0.12*** | 0.11*** | 0.10*** |
| Log(FDI_serv_stock_from _source)*Arab | | | 0.15*** | | | 0.17*** |
| Log(FDI_serv_stock_all) | -0.02 | 0.08 | 0.08 | 0 | 0.11* | 0.11* |
| Log(FDI_Manu_stock_from source) | 0.06*** | 0.06*** | 0.06*** | 0.10*** | 0.10*** | 0.10*** |
| Log(FDI_Manu_stock_all) | 0.12* | 0.11* | 0.11* | 0.12* | 0.1 | 0.1 |
| Tariff_rate for FDI Dest | -0.04** | -0.05*** | -0.05*** | -0.04* | -0.04** | -0.05** |
| Tariff_rate for FDI source | -0.09*** | -0.09*** | -0.09*** | -0.30*** | -0.30*** | -0.29*** |
| Log(DBR Score) | 1.11*** | 0.59* | 0.53 | 0.71* | 0.08 | -0.01 |
| Contig | 0.96*** | 0.90*** | 0.91*** | 0.49* | 0.44* | 0.47* |
| Comlang_off | 0.05 | 0.03 | 0.03 | 0.02 | -0.06 | -0.06 |
| Comlang_ethno | 0.34** | 0.38** | 0.37** | 0.31* | 0.35* | 0.35* |
| Colony | -0.21 | -0.22 | -0.21 | -0.3 | -0.28 | -0.27 |
| Comcol | 1.00*** | 0.99*** | 0.97*** | 1.11** | 1.07** | 1.09** |
| Curcol | -1.79* | -1.83* | -1.81* | -3.40** | -3.54** | -3.48** |
| Col45 | 0.74** | 0.72** | 0.69** | 1.06*** | 1.07*** | 1.01*** |
| CU | 0.60*** | 0.65*** | 0.65*** | 0.43* | 0.52** | 0.55*** |
| FTA | 0.44*** | 0.56*** | 0.56*** | 0.33** | 0.50*** | 0.52*** |
| EIA | 0.17 | 0.03 | 0.04 | 0.31** | 0.11 | 0.09 |
| PS | 0.51*** | 0.56*** | 0.58*** | 1.33*** | 1.36*** | 1.37*** |
| Const | -30.84*** | -28.32*** | -28.03*** | -22.58*** | -19.71*** | -19.47*** |
| No. of observations | 3,768 | 3,768 | 3,768 | 2,309 | 2,309 | 2,309 |
| Adjusted $R^2$ | 0.7206 | 0.7239 | 0.7250 | 0.7559 | 0.7612 | 0.7626 |

**Source:** Author's calculations.
**Note:** *, ** and *** represent statistical significance levels at 10, 5 and 1 per cent levels, respectively.

# Annex IV. Methodology on integrating greenhouse gas emissions in a computable general equilibrium framework

To estimate the changes in greenhouse gas (GHG) emissions, the countries models of Tunisia, Egypt and Morocco have been extended to take into account two main new features. The first is reflected by changing the production function to take into consideration first energy as factor of production similarly to labour and capital and second to allow substitution among various types of energy. Equations 1.1 to 1.3 reflect the top level of the production nest. Equation 1.1 determines the volume of aggregate intermediate non-energy demand, by vintage, $Nv^D$. Equation 1.2 determines the total demand for non-energy intermediate inputs (summed over vintages), $N^D$. Equation 1.3 determines the level of the composite bundle of value added demand and energy $Q^{KEL}$.

$$N_{jv}^{D} = \alpha_{jv}^{N}\left(\frac{PXv_{jv}}{P_{j}^{N}}\right)^{\sigma_{jv}^{P}} XPv_{jv} \tag{1.1}$$

$$N_{j}^{D} = \sum_{v} Nv_{jv}^{D} \tag{1.2}$$

$$Q_{jv}^{KEL} = \alpha_{jv}^{KEL}\left(\frac{PXv_{jv}}{P_{jv}^{KEL}}\right)^{\sigma_{jv}^{P}} XPv_{jv} \tag{1.3}$$

The next level of the constant elasticity of substitution (CES) nesting disaggregates the $Q^{KE}$ bundle into the energy bundle on one side, and capital demand on the other side. Equations 2.1 and 2.2 provide the reduced form first order conditions for demand for $E^P$ and $Kv$.

$$(2.1) \qquad E_{jv}^{P} = \alpha_{jv}^{E} Q_{jv}^{KE} \left( \frac{P_{jv}^{KE}}{P_{jv}^{EP}} \right)^{\sigma_{jv}^{KE}}$$

$$(2.2) \qquad Kv_{jv}^{d} = \alpha_{jv}^{K} \frac{Q_{jv}^{KE}}{\lambda_{jv}^{K}} \left( \frac{\lambda_{jv}^{K} P_{jv}^{KE}}{R_{jv}} \right)^{\rho_{2,j}^{k,v}}$$

$E^P$ is demand for the energy bundle (by vintage), $P^{Ep}$ is the price of the energy bundle, $Kv^d$ represents capital demand by vintage, and $R$ is the vintage specific rental rate of capital. The share parameters are $\alpha^E$for the energy bundle, and $\alpha^K$ for capital. Capital demand incorporates changes in capital factor efficiency. Energy demand is vintage specific, and the substitution possibilities across fuels are generally lower for old capital than for new capital. The index *e* represents the fuel commodities in the sectoral disaggregation. Equation 3.1 determines the demand for each fuel and incorporates energy efficiency improvement which is both sector- and vintage-specific (but not fuel-specific). These equations complete the description of the production structure. Starting from output, *XPv*, the nested CES tree structure of production unfolds until at the end of each branch a basic commodity (at the Armington level) or factor of production is specified.

$$(3.2) \qquad X_{e,j}^{AP} = \sum_{v} \alpha_{e,j,v}^{EP} \frac{E_{jv}^{P}}{\lambda_{jv}^{EP}} \left( \frac{\lambda_{jv}^{EP} P_{jv}^{EP}}{PA_{e}} \right)^{\sigma_{jv}^{EP}}$$

Further details on the full structure of energy-pollution CGE model is available in Chemingui (2001).

## Modeling GHG emissions

Modeling the effect of trade policies on GHG emissions requires, as a starting point, credible estimates of baseline emissions. The level of emissions by gas, energy type, economic sector and country, are either directly based on published or unpublished source of emissions inventory for the selected countries or estimated using some techniques that are explained in more details in Bussolo, Chemingui and O'Connor (2013). In addition, certain industries display an autonomous emission component linked directly to their output levels. This is introduced in order to include some polluting production processes that would not be accounted for by only considering the vectors of their intermediates consumption. It is assumed that labour and capital do not pollute. A change in sectoral output, or in the consumption vector, both in levels or composition, therefore affects emission volumes. Formally, the total value for a given polluting emission takes the form:

$$E = \sum_{i} \sum_{j} \alpha_{j} C_{i,j} + \sum_{i} \beta_{i} X_{i}^{Output} + \sum_{J} \alpha_{J} X_{i}^{Ar\min gton}$$

Where i is the sector index, j the consumed product index, C intermediate consumption, $X^{Output}$ is output, $X^{Armington}$ is final consumption (at the Armington composite good level), $\alpha_j$ represents the emission volume associated with one unit consumption of product j and $\beta_i$ is the emission volume associated with one unit production of sector i. Thus, the first two elements of the right-hand side of the expression represent production-generated emissions, the third one consumption-generated emissions.

The volume of emissions is measured in metric tons. In the present study, only four GHG emissions are considered and are related to the air: carbon dioxide ($CO_2$), nitrous oxide ($N_2O$), methane ($CH_4$), and fluorinate gases (F-gas).

### Modeling health effects of pollutants abatement policies

Pollution abatement policies represent the modern instruments to offset the negative impacts related to the increase of the level of pollutants in air, soil and water. In this context, abatement tax is the major instrument being implemented in many developed countries to achieve two major roles: reduce GHGs emissions but also offset the negative impacts of specific pollutants on health and agricultural productivity. The modeling framework covers four major steps described below.

*Modeling the links between emissions, ambient concentration and exposure:* The translation of emission reductions into changes in ambient concentrations requires a dispersion model for each pollutant linking location-specific emissions to location-specific concentrations. Once the average concentrations for the considered set of pollutants are estimated, they are linked to sectoral emissions by taking the national average of emissions, assuming that pollution intensity at national level is the weighted average of pollution intensity across the various cities of the country. For that purpose, a linear relationship between emissions and concentrations was assumed, which means that a y% reduction in a given sector emissions will also yield a y% reduction in ambient concentration, all else equal. However, to link changed emissions to changed human exposure, it is necessary to have more than a simple average measure of ambient concentration, since actual exposure of individuals may differ significantly from the average. This weighted average is assumed to better approximate actual exposure levels. However, this is still far from a perfect measure of actual exposure. The equation below represents the simple dispersion model. Air concentration levels are determined using a matrix of dispersion coefficients, which vary according to the pollutant and stack height.

$$(1) \qquad Concentr_p = \sum_{stck} dispers_{p,stck} E_{p,stck}$$

Where $Concentr_p$ refers to the country-wide average concentration of a given pollutant p. $dispers_{p,stck}$ represent the degree of differentiation among source types, according the presumed average stack height of emissions from different sectors – high, medium, and low and finally $E_{p,stck}$ is the city wide p emissions from each of the sectors differentiated by typical stack height.[27]

This equation yields the following results: (1) for low and medium height sources, the concentration/exposure per unit of emissions is strictly inversely related to the city's radius, which means that the wider the area over which emissions are dispersed, the smaller their effect on average ambient concentration; (2) the emissions-exposure relationship for high-stack emissions follows an inverted-U shape in the city's radius, as high stacks contribute more widely to area emissions than low- or medium-stack emissions, so the contribution to area-average exposure rises at first with city size; and (3) high-stack sources yield a concentration/exposure per unit of emissions very far below low-stack emissions for virtually any size of city and significantly below medium-stack emissions until city size approaches a radius of 30 km. For Dessus and O'Connor (1999), this suggests that, in terms of reaping ancillary health benefits from energy use changes, it clearly matters where those changes occur in terms of economic sectors.

*Modeling health effects:* Once concentration is calculated, disease intensity is estimated through the dose-response equation (2). Notice that the parameter dose maps concentration levels for various pollutants into intensities of a range of diseases.[28] Equation 3 calculates a damage value by multiplying a unit cost parameter, uc, times the disease intensity.

$$(2) \qquad Disease_{r,d} = \sum_{p} (dose_{d,p} Concentr_{r,p}) Pop_r$$

$$(3) \qquad Damage_r = \sum_{d} uc_d \, Disease_{r,d}$$

Whenever valuation studies of air quality improvements include both mortality and morbidity benefits, the largest estimated monetary benefit is found to be that associated with reduced morbidity risk, which is the estimated value of a statistical life (VSL).

There is a large literature providing VSL estimates for developed countries but very few for developing countries (Chile, India and Tunisia, for example). In general, the epidemiological evidence linking suspended particulates (especially, respirable particulates) to mortality and acute morbidity appears to be the strongest. In the case of Santiago, for example, a statistically significant, positive relationship has been established between PM-10 and health endpoint (Dessus and O'Connor, 1999). With respect to other pollutants, the epidemiological evidence is somewhat less extensive and conclusive than for particulates.

Health effects are usually measured in heterogeneous units, depending on health endpoint and pollutant. For instance, mortality effects are normally measured in increased incidence of premature death while morbidity effects may be measured in terms of either increased frequency of specific symptoms, increased frequency of hospital admissions, or increased number of days of restricted activity attributable to said condition. For economic analysis, there is a need of aggregation of these heterogeneous health impact measures in a common way. To do so, the welfare changes from reduced risk of death and illness measured in terms of individuals' willingness to pay (WTP) for these health improvements is frequently used. The WTP measure is rooted in consumer-demand theory, wherein income-constrained individuals choose among all the possible consumption

bundles those that yield the highest level of satisfaction or utility. Then, assuming that individuals are maximizing utility before some welfare-improving change in environmental quality, the welfare measure allows knowing what is the most that individuals would be willing to pay to secure that environmental improvement. The logic is that they would only be willing to pay up to the point where, weighing the income foregone against the environmental quality improvement, they would be no worse off than in the status quo. Aggregation of WTP across all individuals gives a measure of how much this environmental improvement is worth to society as a whole.

*Modeling pollution abatement tax*: Policy interventions, aimed at improving health and welfare, are of many sorts. This is why governments need to estimate the relative cost-effectiveness of different sorts of interventions. Existing literature on pollution abatement instruments distinguished two alternative approaches usually used by governments. The first reflects the situation when a government implements a given pollution abatement instrument and, accordingly, the aim of any analysis is to look to its implications in economic and social terms. The second approach looks to the best policy instrument that may be implemented by a government to achieve a predetermined pollution abatement rate. In both alternative environmental policy approaches, the selection of the methodology is crucial. There are two alternative methodologies on how pollution abatement policies could be modeled in a CGE framework either through the distinction among commodities based on technological standards or simply through the introduction of a pollution abatement tax. In the absence of data on sectoral disparities in terms of environmental standards, the second approach has been implemented in this paper.[29]

Existing literature on pollution abatement taxation in open economies tends to focus on two complementary and linked impacts that cover the effects of trade liberalization on the environment on the one hand and the effects of environmental policies on trade flows on the other hand. More recent literature examines, in a public finance setting, the interactions between new fiscal instruments and preexisting taxes. Trade instruments to protect the environment have been found to be a blunt and inefficient approach to environmental policy. In a first best world, policy instruments directly linked to the source of the externality (production and consumption activities, rather than trade) are proved to be much more efficient: Pigouvian taxes on effluents, abatement subsidies, marketable pollution permits are found to be among the best instruments to mitigate the impacts of trade openness on environment. But even in a second-best world, the optimal policy to abate emissions would be a targeted uniform tax per unit of pollution, as this would directly discourage the emissions of pollutants, in contrast with trade measures, which will affect pollution activities only indirectly through additional distortions and resource misallocations (Bussolo and Lay, 2003).

Environmental regulations, by modifying production costs, influence trade patterns through changes in comparative advantage. A standard prediction for countries with large absorptive capacity and loose ecological norms is a specialization in dirty industries (pollution heavens). Empirical research tends to confirm that developing economies specialize in dirty industries. This could suggest that developing economies have a real comparative advantage in dirty productions,

and hence a trade-off between trade liberalization and environmental preservation could occur. Another set of issues that has received quite a bit of attention concerns the appealing idea of tax discrimination between "good" things, such as trade (or labour), and "bad things", such as pollution. In particular, the idea of tax swaps (substituting distortionary tax revenues with environmental tax proceeds) suggested the possibility of generating a double dividend (less pollution and a more efficient economy). Numerous studies have analysed various kinds of tax swaps and one major conclusion is that the potential "free lunch" may be eroded by general equilibrium effects causing changes in the relative prices of inputs and outputs and that only certain special second best initial conditions will guarantee it.

The pollution tax can be introduced into the model in two ways. It can either be specified exogenously or it can be generated endogenously by specifying a constraint on the level of emission. In this paper, the second option is adopted. The tax is implemented as an excise tax per unit of emission. It is converted to a price wedge on the consumption of the commodity (as opposed to a tax on the emission), using the commodity specific emission coefficient. For example in equation 4, the tax adds an additional price wedge between the unit cost of production exclusive of the pollution tax and the final cost of production. The consumption-based pollution tax is added to the Armington price, see equation 5. However, the Armington decomposition occurs using basic prices, therefore, the taxes are removed from the Armington price in the decomposition formulae, see equations 6 and 7.

(4) $$PP_i XP_i = PX_i XP_i + \sum_p \beta_i^p XP_i \tau^{Poll}$$

(5) $$PA_i = \left[\beta_i^d PD_i^{1-\sigma_i^m} + \beta_i^m PM_i^{1-\sigma_i^m}\right]^{1/(1-\sigma_i^m)} + \sum_p \alpha_i^p \tau_{Poll}$$

(6) $$XD_i = \beta_i^d \left[(PA_i - \sum_p \alpha_i^p \tau^{Poll}) \Big/ PD_i\right] XA_i$$

(7) $$XM_i = \beta_i^m \left[(PA_i - \sum_p \alpha_i^p \tau^{Poll}) \Big/ PM_i\right] XA_i$$

$\beta_i^p$ represents the pollution coefficient by sector (i) and type of pollutant (p), $\tau^{Poll}$ the pollution tax, XP is sectoral gross output, XD, is demand for domestic products, XM represents demand for imported goods, PP is the producer price, PX the aggregate unit cost, PA the Armington price, PM import price, and PD the price for domestic good.

*Modeling welfare change with reduced health damages*: The chosen yardstick for welfare is a measure of compensating variation (CV) proposed by Dessus and O'Connor (1999), which includes a term to reflect the exogenous component of welfare change from reduced health damages. Thus, if E is the monetary equivalent of the utility function, and y disposable income, then measurement is as follows for period t:

(14) $$(y^* - y) - (E(p^*, u) - E(p, u)) - (D^* - D)$$

Where u is utility, p the price system, and the star exponent the policy outcome. The first term, $y^* - y$, measures the gain (or loss) of disposable income caused by the policy shock. The second term measures the changes in expenditure needed after the policy shock to obtain the same level of utility as before. The third term represents the exogenous welfare component, with $(D - D^*)$ equaling the change in health damages based on measures other than “cost of illness” (COI).

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# Endnotes

1. ASEAN (Association of Southeast Asian Nations) is a free-trade area with 10 member countries. ASEAN+3 includes this group plus China, Japan and South Korea.
2. Even though it is an LDC, Mauritania is included in the Arab Maghreb Union. Also, the terms Arab diversified and Arab LDCs are used interchangeably throughout the text, depending on the context.
3. See annex I, table 1, for a detailed list of countries and values of globalization indices for the whole period 2013-2016.
4. These three other African countries are Ghana, Mozambique and Uganda.
5. The estimates, however, are sensitive to the empirical specification.
6. Analysis of the quantitative impact of reducing or removing impediments to trade in services with a simulation model (like a computable general equilibrium (CGE) model, typically for a country or for the world disaggregated into different regions) entails two major steps. In the first step, the economy is simulated in the presence of the trade barriers, to the extent possible incorporating the mechanisms through which services trade is restricted (including taxes, bans on trade and costly approval procedures). Representing the barriers to trade in services accurately is often challenging, considering the nature of most barriers and sectors, and different forms of services delivery. The second step is to simulate the economy without some or all the trade barriers, A comparison between the results from steps 1 and 2 provides an assessment of the impact of services trade liberalization on the variables that are endogenous in the model (typically sectorally disaggregated values for production, trade and incomes as well as indicators related to the government budget and household welfare).
7. The sectors include primary, manufacturing, construction, distribution, telecommunications, finance, other services, and ownership of dwellings. In the simulation exercise, only telecommunication and financial services are liberalized.
8. Some studies suggest that the relationship is not linear. For example, El Khoury and Savvides (2006) find evidence of a positive and significant relationship between openness in telecommunication services and growth for countries with incomes per capita below an endogenously determined threshold levels of around $6,000 for telecommunication services and $2,300 for financial services.
9. In terms of social outcomes, transport services have direct and indirect effects on various dimensions of poverty, employment, educational opportunities and choices, food security, health outcomes, and crime. Transport could also have negative externalities, including congestion, accidents, negative health hazards due to pollution and the facilitated spread of epidemics, and degradation of ecosystems notably through deforestation and loss of biodiversity (Van den Berg and De Langen, 2014).
10. This might be driven by missing values. The index is not available for Kuwait, Oman and Qatar and the GCC average is essentially driven by Bahrain and Saudi Arabia.
11. LSCI is a composite index based on (a) the number of ships; (b) the total container-carrying capacity of those ships; (c) the maximum vessel size; (d) the number of services; and (e) the number of companies that deploy container ships on services from and to a country's ports.
12. Maritime auxiliary services refer to services provided after a ship arrives at the main port of the country. The Services Trade Restrictions Database includes sector-specific questions, in addition to standardized measures for all sectors, on whether foreign shipping firms are allowed to establish their own facilities and to serve their own ships or others. International maritime shipping services deal with restrictions on different types of cargo (private versus public, liner versus bulk) and how competition law is applied to carrier agreements.
13. In addition to standardized measures that apply to all sectors, the STRI for air passenger transportation captures conditions under which those services are provided. Air passenger transport services are generally governed by bilateral air services agreements (BASA) and the STRI reflects the transparency of and stipulations regarding the route, number, and capacity of flights in the BASAs.

14. In addition to standardized measures, the STRI captures sector-specific restrictions on establishing commercial presence and, more specifically, on the operations of and regulatory environment faced by foreign firms in the telecommunications (both fixed and mobile) services sector. Regarding operations, restrictions on the ownership and operation of an international gateway, the use of VoIP (voice-over-Internet protocol), and the technological neutrality of the license are covered by the STRI. The existence of an independent regulatory authority and measures ensuring the transparency of interconnection arrangements and spectrum use are also taken into consideration in the STRI under the regulatory environment rubric.
15. The STRI covers the cross-border trade of and barriers to establishing commercial presence banking and insurance services. In both banking and insurance services, the STRI captures sector-specific conditions under which a financial institution may provide services and restrictions foreign financial services providers face operating in a country. For instance, in the STRI, the cross-border supply of banking services, which are mainly lending and the acceptance of deposits by foreign banks, relate to restrictions on the type of services that can be provided and as to whether consumers have access to those services. The measures regarding establishing commercial presence in banking, however, cover restrictions on the number of branches and automated teller machines (ATMs), the currency in which transactions take place, raising capital domestically, and the ability to access main payment systems, deposit insurance schemes and Central Bank lending facilities. The restrictions accounted for on the cross-border trade of insurance (auto, life and reinsurance) include the type and terms of insurance policies domestic consumers can buy. As for the restrictions on the operations of foreign insurance firms in the domestic market, the STRI captures regulations regarding whether they can reinsure with foreign reinsurance firms.
16. ASEAN has five FTAs with six partners, namely China, Japan, Republic of Korea, India, and Australia and New Zealand. All parties have ratified the FTA agreements. Middle East and Near East countries of the Arab region include: Egypt, Syrian Arab Republic, Lebanon, Jordan, Iraq, Saudi Arabia, Kuwait, Bahrain, and Qatar.
17. While some FTAs signed by Arab countries are limited to trade in manufacturing products such as the PAFTA and the Euro-Med partnership, others are more comprehensive and cover trade of both goods and services such as the FTAs with the United States and the new generation of FTAs with the EU called the Deep and Comprehensive FTAs.
18. The data were accessed in November 2017 at http://www.ewf.uni-bayreuth.de/en/research/RTA-data/index.html.
19. World Bank Data 2016, labour force participation rate, female and male (percentage of female population ages 15+) (modeled ILO estimate).
20. See http://gulfmigration.eu/uae-dubai-percent-distribution-employed-population-aged-15-nationality-emirati-non-emirati-sector-economic-activity-2015/.
21. World Bank Data 2016, unemployment, male and female (percentage of male labour force) (modeled ILO estimate).
22. The model builds on David Ricardo's theory of comparative advantage by predicting patterns of commerce and production based on the factor endowments of a trading region. The model essentially says that countries will export products that use their abundant and cheap factor(s) of production and import products that use the countries' scarce factor(s).
23. Pursuant to Article I.2 under the GATS, services trade is divided into four modes, depending on the territorial presence of the supplier and the consumer at the time of the transaction. Mode 1. Cross-border trade: from the territory of one member into the territory of any other member. Mode 4. Presence of natural persons: by a service supplier of one member through the presence of natural persons of a member in the territory of any other member.
24. A simple, stylized SAM framework is a square matrix that represents the transactions taking place in an economy during an accounting period, usually one year.
25. The literature on this issue is substantial. See for example Dollar (1992), Edwards (1992), Bhagwati and Panagariya (1999), Caselli (2012), Bhagwati and Srinivasan (2002), and Sachs et al. (1995).
26. Jensen and Tarr (2011), using CGE prospective analysis, find that mutual reductions in tariffs as part of a comprehensive free-trade agreement between Armenia and the EU would provide some gains for Armenia, but these were dwarfed by actions that would liberalize services, reduce border costs and harmonize standards.
27. Garbaccio, Mun and Jorgenson (2000) and Mariani et al. (1997) provide a detailed description of this approach.
28. It may be useful to recall that the set d, p and stack group, respectively, are disease types, pollutants and stack heights.
29. CGE models taking into account technological standards are based on the notion of product differentiation. Usually, this type of model integrates many types (or quality) of the same commodity such as green and classical products through specific production and consumption functions for each type (Schubert and Zagamé, 1998).

Economic integration is an important means to generate income and employment, to boost investment and to spur structural transformation toward more diversified and broad-based economic models. Services do not only satisfy domestic consumption and investment demands but are also exported and used as intermediate inputs and, through their vital impact on the productive efficiency of other sectors, services are a determining factor in a country's participation in international production networks. Coupled with the fact that the services sector tend to account for rather large and growing shares of output, employment, and foreign direct investment, services remain a key area in deeper regional economic integration efforts to reap sizable socio-economic benefits.

In addition to taking stock of the economic integration performance of Arab countries at the individual, sub-regional, and global levels, the current edition of Assessing Arab Economic Integration Report, looks into the role and importance of services in Arab economies in terms of output, export and employment shares of the services sectors. It also explores the restrictiveness of policies and regulations affecting trade in services in the region. The report culminates in a discussion of the priorities and challenges for Arab countries in negotiating services trade agreements in light of the analysis presented.

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