

8 Regional integration in the MENA region: Deepening the Greater Arab Free Trade Area through trade facilitation

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Abstract

This chapter assesses the trade facilitation performance of the countries of the Middle East and North Africa (MENA) region and determines the welfare and sectoral effects of trade facilitation improvements within the context of regional trade integration. It shows that introducing a trade facilitation provision in the Greater Arab Free Trade Area (GAFTA) will lead to a significant welfare increase for all MENA sub-regions compared with a scenario of further trade liberalization without trade facilitation. Trade facilitation in the GAFTA would enhance export competitiveness and lead to a significant increase in overall and intra-trade export value for all countries, but particularly for the Mashreq and Maghreb countries. In the analysis, all sub-regions witnessed an export boost in agro-food product exports, particularly those products in which the Mashreq and Maghreb countries have a comparative advantage. The welfare-enhancing results of this analysis indicate that the MENA region has a high stake in implementing the WTO Agreement on Trade Facilitation (TFA), and should begin with areas that contribute the most to trade cost reduction, such as automation and streamlining of trade procedures.

* The contents of this chapter are the sole responsibility of the authors and are not meant to represent the position or opinions of the WTO or its members.

8.1 Introduction

Over the last 20 years, Arab countries have liberalized their trade through unilateral reform, multilateral negotiations and regional integration. The latter has involved the creation of a number of regional trade agreements (RTAs), of which the most comprehensive in terms of product and country coverage is the Greater Arab Free Trade Area (GAFTA).¹ However, and unlike most recent RTAs, the GAFTA has limited itself to goods liberalization and does not include trade facilitation among its provisions. In its existing shallow form, the GAFTA has had little impact on regional trade and has faced substantial challenges because of restrictive non-tariff measures and inefficient cross-border measures (Shui and Walkenhorst, 2010). Some analysts estimate that non-tariff measures, combined with cumbersome border measures, are more restrictive than tariffs in the MENA region and their presence could significantly reduce the expected benefits from regional integration (Dennis, 2006).

Trade facilitation has been a matter of global interest, which culminated in 2013 in the multilateral Agreement on Trade Facilitation (TFA) under the auspices of the WTO. WTO members are currently in the process of adopting measures to bring the Agreement into effect, which will take place once two-thirds of the WTO's members have domestically ratified the Agreement. At time of writing, none of the Arab countries had ratified the Agreement although 10 Arab countries had notified their category A commitments.² This relatively slow progress in ratification may reflect a lack of general understanding in the region of the benefits of early implementation of trade facilitation measures, whether under the TFA or within the various regional trade facilitation initiatives and programmes that exist.

The objective of this chapter is to assess the economy-wide as well as the sectoral effects of trade facilitation on the MENA region within the context of the GAFTA. For modelling purposes, the GAFTA is divided into three sub-regions: the Gulf Cooperation Council (GCC) countries,³ the Maghreb countries and the Mashreq countries. The assessment used a general equilibrium approach (GTAP 8.1) to simulate two scenarios of trade integration. The first assumes that the three sub-regions eliminate the remaining bilateral tariff barriers,⁴ and the second assumes that, in addition to eliminating tariffs, the three sub-regions undertake trade facilitation measures.

8.2 Trade facilitation in the MENA region

Trade facilitation, in its narrow scope, focuses on improving administrative procedures at the border (simplification, harmonization and transparency), while its broad scope includes changes to behind-the-border measures, such as non-tariff barriers (WTO, 2015).⁵ The purpose of trade facilitation is to ease the movement of goods at the border and reduce trade cost. Inefficient and cumbersome trade procedures constitute an indirect cost to trade that is significantly more restrictive than tariffs and other direct border charges, which have been progressively reduced through negotiations over the years (WTO, 2015).⁶ Despite tariff reductions, trade costs including inefficient customs procedures and country-specific factors, are still quite high. For example, in a recent study, trade costs were estimated to be equivalent to applying *ad valorem* tariffs on traded goods of 213 per cent for developing countries and 134 per cent for developed countries (WTO, 2015).⁷

The performance of the MENA region in terms of trade facilitation is reflected in the World Bank's Ease of Doing Business Indicators and, in particular, the Trading Across Borders Indicators (World Bank, 2013). These indicators reflect the number of documents, the time and the costs associated with exporting and importing by seaport. By this account, the MENA region in 2013 was the lowest performer in terms of time needed to export and import as well as the number of documents required to export, compared with other regions (Table 8.1). The longer the time to comply with border inspection and documentation requirements, the higher the trading cost faced by MENA exporting and importing firms. Beyond regional comparisons, it takes three times longer for a MENA exporter to comply with customs procedures than an exporter in the world's most efficient trading country (Denmark).

Table 8.1 Trading across borders, by region

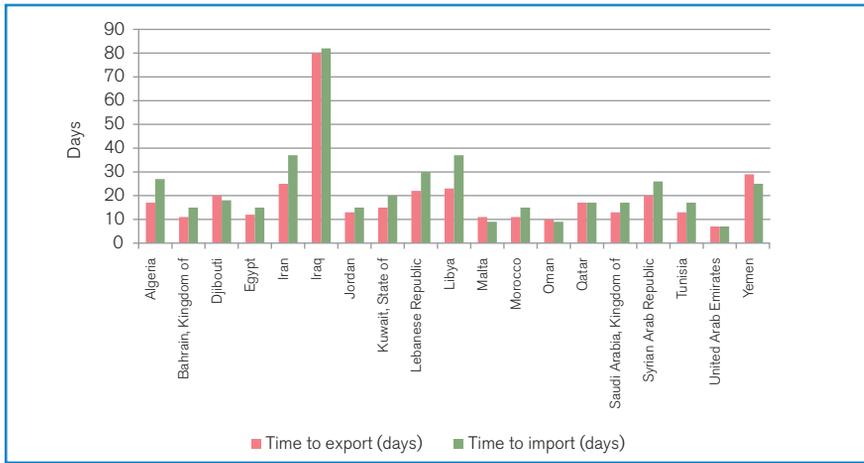
Region	Documents to import (number)	Time to export (days)	Time to import (days)	Cost to export (US\$/container)	Cost to import (US\$/container)
MENA	8	20	24	1,304	1,342
East Asia and the Pacific	7	20	22	839	867
Latin America and the Caribbean	7	17	18	1,343	1,722
High-income OECD	4	11	10	1,060	1,085
Denmark*	3	6	7	795	745

Note: *Denmark is the world's best performing country on trading across borders indicators.
Source: World Bank (2013).

Customs transactions vary widely within the MENA region (Figures 8.1, 8.2 and 8.3). The best performer is the United Arab Emirates, where it takes only seven days and three documents to export, followed by Oman (10 days and seven documents); the worst performers are Yemen (29 days and seven documents) and Iraq (80 days and 10 documents).⁸

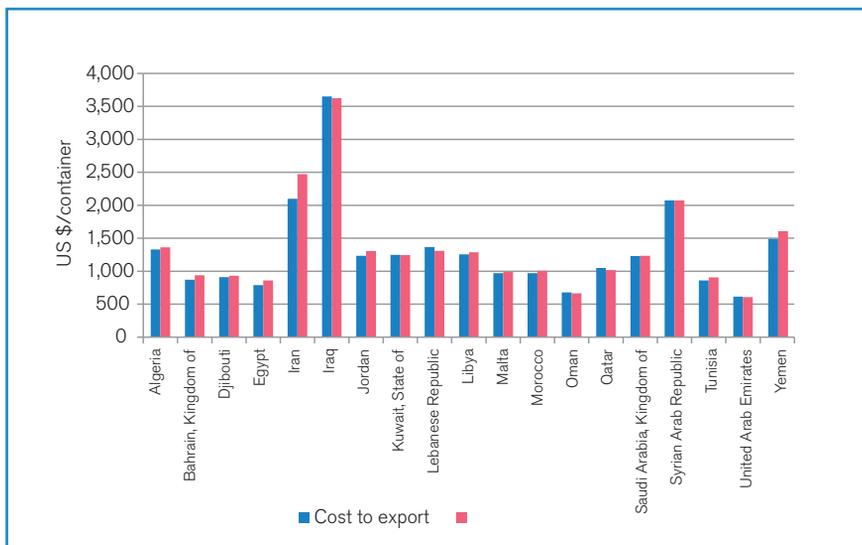
Indirect costs, such as time delays, have long been recognized by researchers as a major factor limiting international trade volumes (Hummels, 2007; Hummels and Schaur, 2013). For the OECD countries and for exports, Hummels (2007) estimated that one day's clearance is equivalent to a 1 per cent tariff (per day tariff equivalent = 1 per cent) while, for the MENA countries, the per-day tariff equivalent is 0.4. The lower time sensitivity of MENA exports reflects its bulk exports of crude oil compared with the technology-intensive manufacturing exports of the OECD.⁹ The tariff equivalents of time vary quite widely within the MENA region, depending on each country's export product characteristics. For example, time tariff equivalents are higher for countries in North Africa and for the Lebanese Republic, as they export time-sensitive products such as fresh fruit and vegetables. Per-day tariff equivalents amount to 0.5 per cent for Morocco and Tunisia, 0.7 per cent for Egypt and 1.4 per cent for the Lebanese Republic (Hummels, 2007).

Figure 8.1 Time to export and import



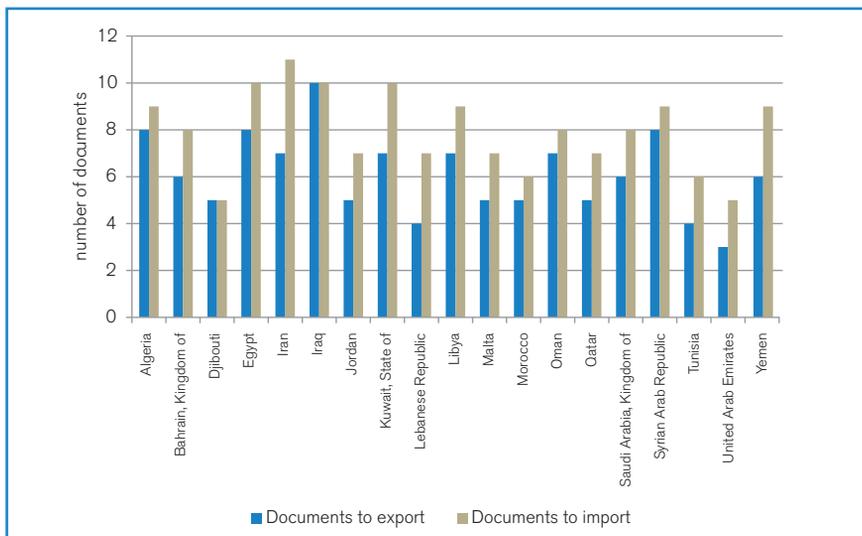
Source: World Bank (2013).

Figure 8.2 Cost to export and import



Source: World Bank (2013).

Figure 8.3 Documents required to export and import



Source: World Bank (2013).

8.3 Economic impact of trade facilitation: literature review

The global discussion on trade facilitation was reinvigorated with an ambitious mandate in the early years of the WTO Doha Round negotiations. At the same time, an abundant literature on the economic impact of trade facilitation emerged to provide the background information to these negotiations and contribute to the discussion. Estimation of the economic impact of trade facilitation mainly used two approaches: the gravity model and the computable general equilibrium (CGE) model. The gravity model investigates econometrically the link between trade flows and trade facilitation indicators while the CGE model simulates the effect of trade facilitation measures on welfare, economic growth, employment and trade, considering sectoral and country linkages.

Most studies, whether using a gravity or CGE model, have found that improved and simplified customs procedures have a positive effect on trade flows. Specifically, the adoption of trade facilitation measures boosts government revenues in developing countries and enhances the ability of a country to attract foreign direct investment (FDI), diversify its exports and integrate into global production supply chains (Decreux and Fontagné, 2011; Engman, 2005; Minor and Tsigas, 2008; Moisé and Sorescu, 2013; WTO, 2015; Zaki, 2010). Furthermore, trade facilitation enhances the role of small and medium-sized enterprises (SMEs) in trade. By reducing export delays, SMEs are more likely to increase their export share than are large firms (WTO, 2015).

To help countries improve their border procedures and prioritize their TFA implementation actions, the OECD has developed a set of trade facilitation indicators that are consistent with the provisions of the TFA (Moisé and Sorescu, 2013). These indicators serve as a basis on which to measure performance and make inter-country comparisons in various areas of trade facilitation. OECD analysis shows that the MENA region is performing better than the average of the 107 countries (outside the OECD) studied, in terms of simplification and harmonization of documents and external border agency cooperation. The region performs at the overall average level in the areas of information availability, automation, streamlining of procedures, and governance and impartiality, but performs less well than the overall average in terms of advance rulings¹⁰ and fees and charges (OECD, 2013).

Using a gravity model, the same OECD study indicates that full implementation of the TFA will reduce trade cost in the MENA region by 10.5 per cent. The measures that contribute most to trade cost reduction are automation of formalities (2.6 per cent reduction), involvement of the trade community (1.8 per cent reduction) and streamlining of procedures (1.3 per cent potential reduction).

Similarly to the OECD study, in 2014, the United Nations Economic and Social Commission for West Asia (ESCWA) initiated a comprehensive survey to collect data and information on trade facilitation in the Arab region. The main findings of the ESCWA survey showed that, although many Arab countries are engaged in implementing trade facilitation measures, implementation of a cross-border paperless trading system remains extremely limited (ESCWA, 2015). The analysis clearly showed a negative relationship between trade facilitation implementation and trade costs excluding tariffs.

In the context of regional integration, Dennis (2006) used GTAP to analyse the welfare and GDP growth effects of trade facilitation. He found that incorporating trade facilitation improvements would triple the welfare effect compared with a scenario of a MENA free trade area (FTA) without trade facilitation. He estimated that adding trade facilitation to mere trade liberalization would increase overall welfare from US\$ 913 million to some US\$ 3 billion, corresponding to a 0.1 per cent increase in GDP, with all MENA sub-groups benefiting from this increase. Bchir et al. (2007) used the MIRAGE model to look into various trade integration schemes of the Maghreb countries (Maghreb free trade area, Maghreb customs union, Maghreb common market). They estimated that liberalizing trade in goods in the Maghreb region would lead to an overall gain of US\$ 300 million, with the common market scenario leading to the largest GDP gain. However, Bchir et al. did not explicitly incorporate trade facilitation into their analysis.

In the present study, the approach used in assessing the impact of trade facilitation follows that of Dennis (2006), but with a much richer data set (GTAP 8.1), incorporating most Arab countries, including the GCC, Maghreb and Mashreq countries.¹¹

8.3 Modelling trade facilitation

GTAP 8.1 is used to assess the economy-wide as well as the sectoral effects of trade facilitation within the context of MENA regional integration. GTAP 8.1 is ideal to assess such effects as it considers the sectoral as well as the country linkages through trade and factor mobility. It is a standard multi-region, multi-sector CGE model with perfect competition and constant returns to scale. The model is fully documented in Hertel and Tsigas (1997). GTAP 8.1 includes 134 regions and 57 commodities/sectors and contains complete bilateral trade, transport and tariff information. For the present study, the data set was aggregated into 29 regions and 32 sectors reflecting the trade structure of the MENA region and was updated by shocking the initial data set to the year 2015 using World Bank data on population, GDP and labour (Boughanmi, Al Shammakhi and Antimiani, 2016). The

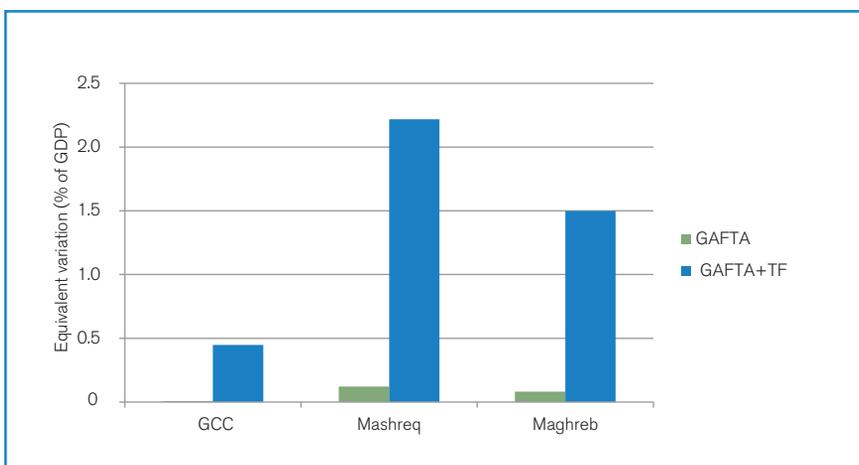
sectoral aggregation includes 15 agricultural and natural resources products, four oil and mineral products, nine manufacturing and industrial products, three transportation service sectors and one aggregate service sector. The regional aggregation, in addition to the GCC, Mashreq and Maghreb countries as defined above, includes most OECD countries, and other countries from Africa, Asia and Latin America (Appendix Table 8.3).

However, as indicated by Dennis (2006), GTAP 8.1 does not include a sector that captures trade facilitation. To capture this, the present study simulates the removal of cross-border inefficiencies as an import-augmenting technical change in the GTAP model (Fox, Francois and Londoño-Kent, 2003). A technological shock is introduced through the AMS variable in GTAP, which represents the change in the price of imports from a particular trading partner due to efficiency changes (Fugazza and Maur, 2008).¹² Hertel et al. (2007) argue that improvements in trade facilitation will help reduce the indirect cost associated with transit time (iceberg cost) and reduce the destination price of traded goods. Dennis (2006) and the OECD (2013) estimated that total trade transaction cost in the MENA region amounts to around 10 per cent. The indirect cost component of the total transaction cost for the MENA countries is estimated to be 3 per cent of the total trade transaction cost (Dennis, 2006). For comparative purposes, the present study used the same figure for both the Maghreb and Mashreq sub-regions but only 1 per cent for the GCC sub-region, as the latter is considered to have more efficient trade logistics (World Bank, 2015). The model is solved using the standard GTAP macroeconomics closure, where global investment is allocated across regions according to the relative rates of return in each region, affecting regional savings and the current accounts (Hertel, 1997).

Simulation results

The GTAP framework was used to assess two scenarios of further trade liberalization within the GAFTA. The first scenario assumes that GAFTA countries complete trade liberalization by eliminating the remaining tariffs on bilateral trade (GAFTA scenario). The second scenario includes the first scenario but assumes, further, that GAFTA countries are implementing cross-border trade facilitation measures (GAFTA+TF scenario).

The GAFTA+TF scenario leads to a significant increase in welfare (equivalent variation, EV) compared with the GAFTA scenario without trade facilitation (Figure 8.4). Among the three GAFTA subgroups, the Mashreq countries gain the most (2.2 per cent), followed by the North African countries (1.5 per cent). This basically reflects the initial high levels of protection as well as initial high levels of cross-border inefficiencies in these two subgroups compared with the GCC subgroup

Figure 8.4 Welfare effect of trade facilitation improvement

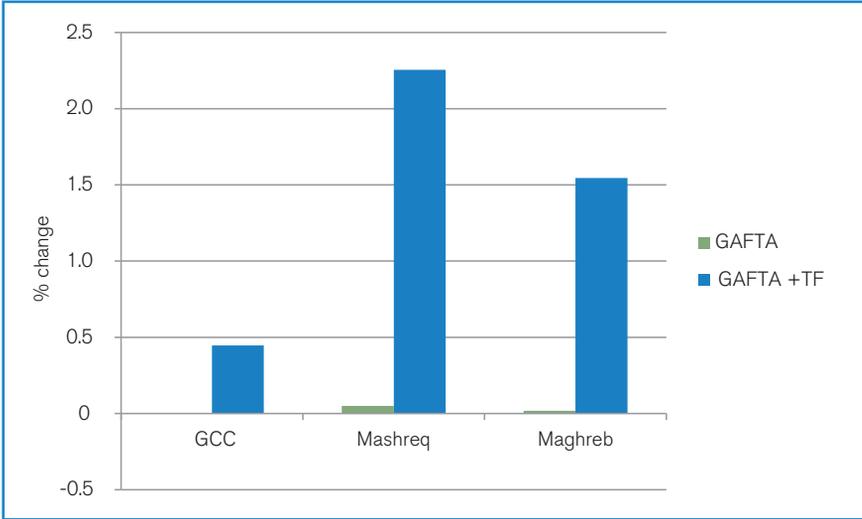
Source: Author's calculations.

(0.5 per cent). Without trade facilitation, completing the GAFTA by the total elimination of tariffs will have almost no effect on welfare.

Likewise, trade facilitation provides a significant boost to real GDP in the GCC (0.45 per cent), Mashreq (2.25 per cent) and Maghreb (1.5 per cent) sub-regions of the GAFTA, while the scenario of complete elimination of tariffs without trade facilitation had a zero to a very minor effect on GDP (Figure 8.5). Therefore, the Mashreq and Maghreb subgroups benefited most from deepening the GAFTA through the elimination of remaining tariffs along with improved trade facilitation. The magnitude of the results of this study is somehow greater than those found in Dennis (2006), who estimated an increase in real GDP for all MENA subgroups in a range of 0.02 to 0.21 per cent, with the highest gain for the North African countries. Refinement of the data and greater country coverage explain these discrepancies.

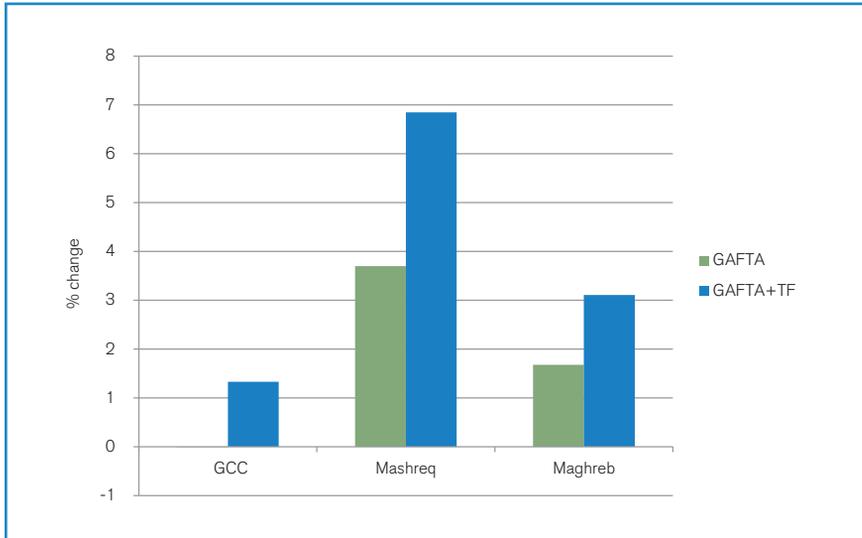
The trade effects of trade facilitation are captured by the value of exports (Figure 8.6). The GAFTA completion scenario has almost no effect on the value of exports of the GCC countries, while the effect is higher for the Mashreq and Maghreb countries (3.8 per cent and 1.7 per cent, respectively). Introducing trade facilitation into the GAFTA leads to a significant increase in export value for all countries, and particularly for the Mashreq (6.9 per cent) and Maghreb (3 per cent) countries.

Figure 8.5 GDP effect of trade facilitation



Source: Author's calculations.

Figure 8.6 Effect of trade facilitation on exports

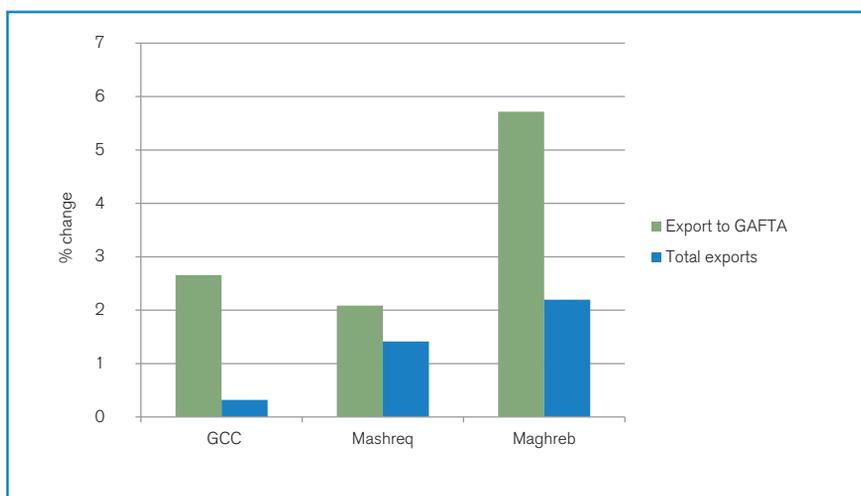


Source: Author's calculations.

Likewise, with trade facilitation, full trade liberalization in the GAFTA leads to a significant increase in intra-regional exports, particularly for the Maghreb sub-region, where export growth reaches around 6 per cent, most of which is destined for the Mashreq sub-region (Figure 8.7). The GCC subgroup also witnesses an important increase in exports towards the GAFTA, with intra-export growth above 2 per cent. The lower level of increase for the Mashreq sub-region's intra-export can be explained by the already quite intensive Mashreq intra-trade compared with the other-sub-regions.

At the sector level, with trade facilitation, an impressive (double-digit) increase is observed in overall exports of the Mashreq sub-region in agricultural and food products (dairy, meat, beverages, other food), minerals (oil, gas) and manufacturing (Appendix Tables 8.1 and 8.2). The Maghreb sub-region witnesses a double-digit increase in overall exports of dairy products and transport equipment. Although export growth is lower in the GCC countries, they nonetheless witness a clear positive increase in exports of all products, in particular, agro-food products (dairy and meat). Although they have limited agricultural resources, through processing imported agricultural raw materials, the GCC countries are able to create value-added products and thereby access international markets.

Figure 8.7 Effect of trade facilitation on GAFTA intra-trade



Source: Author's calculations.

8.4 Conclusions

Indirect trade cost in the MENA region, as reflected in the World Bank's trading across borders indicators, is relatively high compared with regions such as East Asia and the Pacific, and Latin America and the Caribbean. Indirect costs related to inefficient trade procedures are worse than equivalent tariffs as they are "wheels in the sand" causing greater economic losses. Improving trade procedures through trade facilitation measures would reduce trade cost and enhance the international competitiveness of MENA countries.

This chapter analysed the effects of introducing and implementing trade facilitation measures as part of a regional integration agreement to deepen the GAFTA in the MENA region. GTAP 8.1 was used to simulate two scenarios, one involving the elimination of the remaining bilateral tariffs between GAFTA members, and the second assuming that, in addition to tariff elimination, MENA countries undertake trade facilitation measures. Trade facilitation was introduced into the GTAP analysis as an efficiency-enhancing measure affecting import prices.

Results indicate that the full completion of the GAFTA with trade facilitation improvements yields a welfare gain for all GAFTA sub-regions, with the Mashreq and the Maghreb sub-regions gaining the most (an increase in welfare of 2.2 per cent and 1.9 percent, respectively). Trade facilitation in the GAFTA enhances export competitiveness and leads to a significant increase in overall export value for all countries, particularly for the Mashreq (6.9 per cent) and Maghreb (3 per cent) countries. Furthermore, the scenario of trade liberalization within the GAFTA plus trade facilitation leads to a significant increase in intra-regional exports for all countries, reaching 6 per cent for the Maghreb, 2.6 per cent for the GCC and 2 per cent for the Mashreq countries. All sub-regions witness an export boost in agro-food products, particularly those products in which the Mashreq and Maghreb countries have a comparative advantage.

The welfare-enhancing results of this study indicate that the MENA region has a high stake in implementing the TFA. However, many countries in the MENA region may face challenges in making trade facilitation reforms due to a lack of human and financial resources. Experience has shown that sequencing and prioritizing the areas of reforms can be a cost-effective way of implementing trade facilitation projects. For example, the MENA region could begin reforms in the areas reported above as contributing most to trade cost reduction, such as automation, involvement of the trade community and streamlining of trade procedures.

Appendix

Appendix Table 8.1 Value of merchandise regional exports by commodity
FOB (% change)

	S1:GAFTA			S2: GAFTA +TF		
	GCC	Mashreq	Maghreb	GCC	Mashreq	Maghreb
Rice	-0.16	1.71	7.39	2.35	6.32	5.94
Wheat	0.12	-0.77	-1.42	3.25	4.33	-1.41
Oilseeds	0.03	0.54	4.47	2.87	2.80	2.59
Sugar	-0.14	-0.89	5.92	0.43	1.21	5.96
Fruit and vegetables	-0.36	7.21	0.49	0.44	7.73	-0.28
Dairy	-0.46	11.41	16.15	3.34	12.51	16.20
Livestock	0.30	-0.11	-0.42	0.95	-0.99	-1.33
Meat	0.15	9.04	0.41	5.07	10.71	-5.18
Beverages and tobacco	-0.30	12.04	3.57	0.15	12.66	3.76
Other food	-0.28	10.85	1.00	0.91	11.63	2.80
Other crops	0.20	-0.81	0.04	1.20	-2.18	-0.58
Vegetable oil	-0.01	0.66	-0.36	1.92	5.79	-0.86
Forestry	0.03	-2.31	1.79	0.58	-5.35	-0.20
Fishing	0.12	-0.01	-0.24	0.88	-0.02	-1.49
Wood products	0.08	11.24	1.27	1.08	13.17	4.67
Oil	0.00	-0.32	0.17	0.25	0.00	8.06
Coal	-0.02	-2.10	-0.09	1.63	0.80	7.93
Gas	0.53	-8.78	-1.04	3.57	24.12	0.03
Other minerals	-0.29	10.80	2.29	0.07	12.60	2.32
Electricity	-0.01	-0.41	-0.32	0.52	5.73	0.85
Oil products	0.02	18.79	0.95	0.22	19.04	4.59
Chemicals	0.01	2.64	0.45	0.43	6.47	3.73
Metals	-0.03	1.18	0.82	1.24	5.47	4.55
Textiles	-0.05	1.90	-0.77	0.88	7.47	0.46
Transport equipment	-0.02	1.00	11.52	1.80	3.70	20.86
Electronic equipment	0.00	17.26	-0.73	1.41	24.53	4.56
Other manufactures (1)	0.02	19.34	1.38	1.53	23.41	7.41
Other manufactures (2)	0.03	-0.09	0.18	1.67	8.10	4.05
Land transport	0.03	-0.59	-0.33	0.45	-0.60	-0.33
Water transport	0.02	-0.27	-0.01	0.32	0.35	0.31
Air transport	0.03	-0.65	-0.09	0.65	0.14	1.30
Services	0.00	-1.02	-0.60	0.47	-2.29	-1.89

Source: Author's calculations.

Appendix Table 8.2: Value of merchandise regional imports by commodity CIF (% change)

	S1:GAFTA			S2: GAFTA +TF		
	GCC	Mashreq	Maghreb	GCC	Mashreq	Maghreb
Rice	-0.03	0.26	1.29	-0.74	-1.44	8.80
Wheat	-0.04	0.51	0.61	0.20	1.44	5.62
Oilseeds	0.01	0.12	0.49	-0.58	-1.91	2.13
Sugar	-0.02	0.57	0.54	-0.38	-0.43	5.17
Fruit and vegetables	0.05	5.51	0.64	-0.23	7.63	3.37
Dairy	0.00	5.93	0.98	0.29	15.15	10.41
Livestock	0.02	0.48	0.40	-0.40	1.33	2.16
Meat	0.02	2.10	0.83	0.28	10.74	8.79
Beverages and tobacco	0.00	2.58	0.26	-0.36	3.62	0.46
Other food	0.02	2.36	0.46	-0.04	3.79	2.51
Other crops	0.01	0.96	0.43	-0.63	3.86	2.44
Vegetable oil	0.01	0.30	0.23	-0.17	0.02	-0.35
Forestry	0.02	2.15	0.41	-1.11	8.87	3.73
Fishing	0.04	0.40	0.31	0.04	3.10	3.21
Wood products	0.00	1.04	0.38	0.13	0.67	1.82
Oil	0.00	5.16	-0.22	4.02	16.72	4.74
Coal	-0.01	1.54	0.00	-0.74	1.06	-2.61
Gas	0.06	2.58	0.52	9.70	14.57	26.93
Other minerals	0.05	2.76	0.40	0.55	2.14	3.27
Electricity	0.01	0.47	0.36	1.65	3.36	5.85
Oil products	0.11	0.37	1.05	0.97	1.76	0.96
Chemicals	0.02	0.43	0.29	0.76	-0.68	1.37
Metals	0.00	0.47	0.41	0.35	-0.76	2.00
Textiles	0.00	0.82	0.29	0.49	1.42	4.34
Transport equipment	0.01	0.78	0.41	0.07	1.66	-0.32
Electronic equipment	0.04	0.94	0.33	0.85	2.61	3.14
Other manufactures (1)	0.01	1.09	0.30	0.09	1.91	-0.44
Other manufactures (2)	0.03	0.60	0.38	0.96	2.10	4.83
Land transport	0.01	0.39	0.22	0.33	3.38	2.54
Water transport	0.00	0.33	0.07	0.11	0.33	-0.01
Air transport	0.01	0.19	0.09	0.05	0.15	0.28
Services	0.01	0.59	0.40	0.56	3.90	3.53

Source: Author's calculations.

Appendix Table 8.3 Sectoral and regional aggregation

Commodity	Factor	Country/Region
Rice	Land	Oman
Wheat	Labour	Bahrain, Kingdom of
Oilseeds	<i>skilled</i>	Saudi Arabia, Kingdom of
Sugar	<i>unskilled</i>	United Arab Emirates
Vegetables and fruit	Capital	Kuwait, State of
Dairy	Natural resources	Qatar
Livestock		Rest of MENA countries
Meat		North Africa
Beverages and tobacco		EU28
Other food		EFTA
Other crops		USA
Vegetable oil		Canada
Forestry		Russian Federation
Fishing		Japan
Wood products		China
Oil		Korea, Republic of
Coal		Philippines
Gas		Singapore
Other mineral		Turkey
Electricity		Iran
Oil products		Brazil
Chemicals		India
Metal products		Indonesia
Textile		Australia and New Zealand
Transport equipment		Mexico
Electronic equipment		Africa
Other manufactures (1)		Rest of Asia
Other manufactures (2)		Rest of America
Land transport		Rest of World
Water transport		
Air transport		
Services		

Source: GTAP 8.1 database.

Appendix Table 8.4: Simple average bilateral tariff rates applied in the GAFTA region

Sector	GCC import tariff from		Maghreb import tariff from		Maghreb import tariff from	
	Mashreq	Maghreb	GCC	Mashreq	GCC	Maghreb
Grains	0.0	0.0	2.1	0.1	0.0	0.0
Fruit and vegetables	0.0	0.0	23.7	2.3	6.1	9.3
Fishing	0.0	0.1	14.7	3.8	0.9	0.0
Dairy products	0.0	0.1	0.3	2.2	7.0	3.9
Sugar	0.0	0.0	4.1	0.6	15.5	0.0
Beverages and tobacco	0.0	6.7	8.1	12.5	1.4	37.5
Other food products	0.0	0.1	5.9	5.1	2.1	1.6
Textiles	0.0	0.2	4.9	15.0	6.1	1.3
Chemicals and plastic products	0.0	0.4	2.4	1.9	1.2	0.3
Petroleum products	0.0	4.5	8.7	12.0	0.7	4.5
Motor vehicles and parts	0.0	1.2	0.4	10.5	2.9	2.5
Other industrial products	0.0	1.2	6.7	5.2	3.3	5.0
Services	0.0	0.0	0.0	0.0	0.0	0.0

Source: GTAP 8.1 database.

Endnotes

1. The GAFTA has been in force since 1 January 1998 and includes 17 Arab countries: the Kingdom of Bahrain, Egypt, Iraq, Jordan, the State of Kuwait, the Lebanese Republic (Lebanon), Libya, Morocco, Oman, the State of Palestine, Qatar, the Kingdom of Saudi Arabia, Sudan, the Syrian Arab Republic (Syria), Tunisia, the United Arab Emirates and Yemen.

2. In order to benefit from the special and differential treatment (SDT) provision, the Agreement classifies its provisions under categories A, B and C. Category A provisions will be implemented immediately the Agreement enters into force; category B provisions will be implemented after a transition period determined by each member; category C provisions will be implemented after a transition period, once members have received capacity-building support.

3. The GCC includes the Kingdom of Bahrain, the State of Kuwait, Oman, Qatar, the Kingdom of Saudi Arabia and the United Arab Emirates; the Maghreb countries include Algeria, Libya,

Morocco and Tunisia; the Mashreq countries include Egypt, Iraq, Jordan, the Lebanese Republic and the Syrian Arab Republic.

4. Tariff data show that, despite the full implementation of the GAFTA, there are still various tariffs and non-tariff barriers on intra-trade (Appendix Table 8.4).
5. The WTO defines trade facilitation in two dimensions: (i) broad or narrow; and (ii) soft or hard infrastructure. The latter dimension differentiates between improvements in trade procedures that do not require heavy investment (soft) and investment in hard infrastructure, such as ports and transportation links within a country (WTO, 2015).
6. This is often referred to in the literature as “iceberg cost”, where the tip of the iceberg constitutes the direct cost while the bigger, under-the-water part of the iceberg constitutes the indirect cost in relation to the cost of time, due in particular to inefficient and long customs procedures (Hummels and Skiba, 2004). In the “iceberg model” of trade cost, inefficiencies at the border are pure losses, reducing the value of goods as they cross the border, in similar fashion to the melting tip of the iceberg as its moves through the ocean (WTO, 2015).
7. In these estimates, trade cost is defined broadly, referring to all costs involved in moving a product from the producer to the consumer (cost beyond the cost of production).
8. In addition to the World Bank’s trading across border indicators, a number of other trade facilitation indicators have been developed and used in assessing trade facilitation policies. These indicators vary in terms of focus, country coverage and frequency of publication. Examples include the World Bank’s Logistics Performance Index (LPI), the OECD’s Trade Facilitation Indicators (TFI) and the World Economic Forum’s Enabling Trade Index (ETI). While the LPI measures a country’s performance along the supply chain, the ETI measures the quality of institutions, policies and services facilitating trade across borders. The TFI covers the full spectrum of border procedures corresponding to the main policy areas under the TFA. For the sake of simplicity, the present study used the World Bank’s trading across borders indicators as they are sufficient to serve the purpose of the analysis.
9. Combining the per-day tariff equivalents with the World Bank’s trading across borders data gives the tariff equivalents of the total import and export time delays. For the MENA countries, this comes to 5.5 per cent tariff equivalent, which is more than twice the applied tariff (Hummels, 2007).
10. As defined in the TFA, advance rulings means “prior statements by the administration requesting traders concerning the classification, origin, valuation method, etc., applied to specific goods at the time of importation”.
11. The country coverage in Dennis (2006) is rather limited, including only Egypt, Jordan, Morocco and Tunisia; all other countries are aggregated into one group, the Rest of MENA.
12. Alternatively, the reduction in time is introduced as an iceberg effect by Hertel, Walmsley and Itakura (2001), which allows for the shifting of the Armington demand function by the *ad valorem* tariff equivalent of the time saving to cross the border.

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