Center for Social and Economic Research

Economic Integration in the Euro-Mediterranean Region

FINAL REPORT
APPENDICES

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Assessing the Trade and Welfare Effects of Euro-Mediterranean Integration

INTRODUCTION AND SUMMARY

This chapter analyses the welfare effects of a EuroMed agreement looking at both EU integration with the Mediterranean (MED) countries (N-S agreement) and closer integration between the MED countries (S-S agreements). The analysis in this report follows the 'Sussex Framework' which provides an analytical toolkit for studying trade patterns and analysing the potential benefits of a proposed free trade area (FTA). The conceptual basis of the Sussex Framework is to measure the implementation of a given preferential trading agreement (PTA) based on a checklist of issues. In applying the framework, first each element in the checklist is evaluated with respect to the proposed agreement, secondly, the economic impact of a given FTA is evaluated, where its viability is seen to depend on the magnitude and distribution of benefits, both across and within countries, and where the overall welfare impact will depend on the extent of shallow integration, as well as on deep integration.

The net benefits of shallow integration from an FTA are ambiguous, as an FTA leads to both trade creation and trade diversion. Trade creation is welfare enhancing and arises whenever more efficiently produced imported goods replace less efficient domestically produced goods. Trade diversion is welfare reducing and occurs when sources of supply switch away from more efficient non-partner countries to less efficient partners. The net welfare impact of a PTA will depend on the relative size of the two effects.

In addition to these efficiency gains and losses, there may be welfare gains arising from growth effects induced by integration: faster technical change and total factor productivity growth and scale economies arising from increased specialization, and/or positive externalities between firms. These gains are more likely to arise in the presence of deep integration.

The Framework then involves the application of a range of diagnostic indicators that shed light directly and indirectly on the welfare consequences of a given FTA. A number of these indicators help in evaluating the shallow integration consequences as well as the distributional implications. Overall the Sussex Framework is highly complementary to more qualitative analyses based for example on surveys, interviews and case studies. Indeed the findings of the Framework will be used to identify (i) the issues to be raised in the qualitative analyses pursued through targeted interviews of key business representatives and (ii) the sectors that will be selected for more detailed analysis.

The limiting factor of this study was data availability. Where trade data is concerned and to maximise country coverage, comparability and depth of nomenclature the UN COMTRADE database was the preferred source[1]. The analysis looks at trade flows from 1996 to 2006 to accommodate for these data shortages. Whilst the proximity, in time, of the entry into force of several AAs (Algeria 2005, Egypt 2004, and Lebanon 2006) leaves little room for an ex-post

[1] This source was selected over national sources or the Eurostat Comext database for comparability purposes and to maintain a homogeneous nomenclature across the periods under analysis. Furthermore, much of the analysis requires world trade flows as comparators which are unavailable from these sources.

evaluation, the Sussex framework is well equipped to deal with both ex-ante and ex-post analysis. Furthermore the particularities of the bilateral relations between the EU and the MED region imply that most MED countries have received preferences into the EU market for most of their trade since the unilateral preferences of the 70's. The main changes in preferences are then those occurring through the preferential liberalization of MED countries' tariff schedules with respect to the EU according to the agreed timetables. Another possible concern is that the implementation of Agadir occurs in 2007, this lies outside our sample coverage. However Agadir countries have had duty free access to each other's market through the PAFTA agreements, hence there has been no direct change in preferences between these countries in 2007. Whilst the data limitations affect the precision of our predictions, they will not affect the general conclusions of the study.

The chapter is divided into 8 sections. The first section provides macroeconomic indicators for the region so as to contextualise subsequent analysis; here we also look at the current status of bilateral agreements across the region. The second section then looks at the tariff structure of the MED countries with special focus on the Mediterranean 5 (Egypt, Israel, Jordan, Morocco and Tunisia; henceforth MED5). Section three analyses the trading structures of MED countries by geographical destination and origin. In section 4, we consider the sectoral composition and evolution of trading structures across the MED5 countries both with respect to the EU and to other MED countries. The fifth section then digs deeper into bilateral trade flows, at a highly disaggregated level, by examining the evolution of market shares and comparative advantages across top MED country exports. We also look at the degree of similarity across MED countries with respect to each other, and to the EU to try to determine the scope for beneficial trade creation within the region and with the EU. In section six, we look at individual MED5 countries where we determine the degree of preference utilisation in the EU market and look at performance indicators across a selection of markets for each country's top exports. Section seven considers degrees of existing intra-industry trade to determine the scope for deep market integration and Section 8 is devoted to examining the evolution of investment patterns.

Overall, we find that:

- There is high heterogeneity across MED countries' macroeconomic performance in the last decade. But one degree of commonality is that MED countries show high openness indicators suggesting that liberalisation could have significant economy-wide effects.
- There are already substantial preferential schemes operating in the region where main partners are the EU, PAFTA or the US. To the extent that increased preferential liberalisation raises the probability of including least cost producers in the FTAs, there is a possibility that trade diversion forces will be reduced. The overlap of agreements does however underline the need for a comprehensive regime on Rules of Origin.
- Levels of protection remain high (except for Israel and Turkey), suggesting that preferential liberalisation has the potential of causing strong trade effects, be these from trade creation or trade diversion.
- The region's natural trading partner is the EU which should imply that the N-S agreement will be trade creating. In terms of S-S integration, trade between Mediterranean economies is very low but growing.

- Growth of MED exports by destination point to higher annual export growth to non-EU countries. This can be largely explained by the more rapid liberalisation of this grouping and the little change in preferences received in the EU during the last decade.
- Growth of MED imports by origin also shows that annual import growth has been larger from non-EU partners. This suggests that the N-S agreements have seen little trade diversion to date. We would expect that as countries reach full liberalisation of their tariff schedule this trend could be reversed
- The MED region predominantly exports 'mineral fuels' and textiles where imports are largely concentrated in 'machinery/ transport equipment' and 'manufactured goods'.
- Given that MED countries import similar goods from the EU as they do from non-preferential partners, the N-S agreement has the potential for causing some trade diversion. Where the S-S agreement is concerned, the MED region imports significantly different products from the region than from the rest of the world which suggest that there is little scope for trade diversion. Where there is a possibility of there being some trade re-orientation as a result of matching preferences with the US we see how this could occur in Egypt and Israel but is unlikely for Morocco. Trade re-orientation is likely to be welfare enhancing as it removes previous trade diversion created from other preferential agreements.
- The top 15 export analysis for the MED region shows signs of there being some re-structuring of MED exports since 1996. Where the analysis is mainly driven by the big players (Israel and Turkey) there is strong specialisation in 'diamonds', Textile and Clothing products and automobiles.
- A closer analysis of T&C exports shows important concentration, whilst specialisation has taken place in the higher value adding sectors such as 'apparel & clothing' and is mainly oriented to the EU market.
- Agriculture, which was left out of the AA negotiations, represents a small share of total MED exports. Evidence suggests that MED agricultural products have a relatively good market access in the EU besides ovine products, citrus fruits and fish products.
- The nascent motor vehicle sector is largely concentrated in Turkey where initial revealed comparative disadvantages have been overturned to create strong revealed comparative advantages. Whilst other MED countries show small amount of exports in these sectors, they are increasingly specialising in parts and accessories of automobiles, but they continue to show comparative disadvantages in 2006.
- In terms of export similarity used to assess the potential for trade creation from an inter or intra industry perspective, the analysis suggests that there is little scope for beneficial bilateral intra-industry based trade creation in the region. MED partner's exporting structures, even though becoming increasingly similar, continue to be highly dissimilar.
- Looking at how similar MED partner exporting structures are to other MED partner importing structures to assess how well these are suited to each other we see that similarity is again very low. This suggests that these partners import significantly different products from the region than from the world and hence that a S-S agreement is likely to have limited trade effects.
- The current degree of deep market integration between the MED5 countries as identified by way of IIT indicators is low but growing in time. Previous analysis of export similarities suggest that MED5 countries should be engaging in more IIT based trade than they currently are.

- On aggregate all MED countries show a positive FDI performance indicator implying that they attract a higher share of FDI than that which would be suggested by their share of GDP, though it is largely resource based and to supply domestic markets.

1 BACKGROUND

The overall impact of preferential liberalisation depends primarily on the scope of both shallow and deep integration. Shallow integration refers to the removal of border barriers to trade (tariffs or quotas). The welfare effects arising from this type of liberalisation are inherently ambiguous as they depend on the inter-play between trade creating and trade diverting forces. Trade creation occurs when the removal of border barriers facilitates previously un-used trade channels to 'create' new trade opportunities. Conversely trade diversion refers to the forces that divert trade to new preferential partners which have been given an 'edge' over their competitors solely due to the preferential status obtained. Where trade creation is welfare enhancing, trade diversion is welfare reducing, the interaction between these forces allows us to capture the overall welfare impact of a trade agreement.

Deep integration, on the other hand, is a more complex matter involving policies and institutions that facilitate trade by reducing or eliminating regulatory and behind-the-border impediments to trade. These can include issues such as customs procedures, regulation of domestic services production that discriminate against foreigners, product standards that differ from international norms or where testing and certification of foreign goods is complex and perhaps exclusionary, regulation of inward investments, competition policy, intellectual policy protection and the rules surrounding access to government procurement. Welfare gains from a successful process of deeper integration are likely to be considerably higher than losses from shallow integration. Deep integration, when focusing on enhancement of market access, permits both more niche market specialisation and the creation of stable value chains. The possible range of further gains associated with deeper integration include: technology transfer and diffusion both through trade and FDI, pro-competitive gains from increasing import competition in an environment of imperfect competition, which may also allow greater exploitation of economies of scale in production and the greater use of intermediate inputs; the increased geographical dispersion of production through trade that supports the exploitation of different factor proportions for different parts of the production process and/or local economies of scale through finer specialisation and division of labour in production; externalities arising from institutional changes that lead to a wide increases in productivity.

One of the goals of the Barcelona process (1995) was to intensify trade relations between the EU and its Mediterranean partners and to promote closer integration across the EuroMed region. To this end, the completion of individual Association Agreements between the EU and MED countries would be sought and a EuroMed Free Trade Area (FTA) would be promoted. In this chapter, we are concerned with the possible impact of such agreements on trade in goods and on investment flows both as a N-S agreement and as a S-S agreement. To this end, we look at existing trade flows and trends as we believe that where liberalisation has been taking place, further liberalisation will result in the magnification of current trends.

As Table 1 shows, there is important heterogeneity across MED partners both in terms of economic performance and geo-demographical characteristics. As such, Mauritania is the poorest country with a GDP per capita (non PPP adjusted) of $847 whilst Israel is the richest with a GDP per capita of $22,835. In terms of value added structures as percentages of GDP we see that most countries are predominantly service economies with the exception of Mauritania and Algeria. On average, the agricultural sector represent a small share of GDP value added (around 11%) with industry's contribution to GDP being on average 33%. Countries also differ considerably in terms of population where Egypt and Turkey are the largest with over 72 million inhabitants contrasting with the Palestinian Authority which has 2.4 million inhabitants. In terms of trade balance, we see how most MED countries are running a trade deficit in 2007 (with the exception of Algeria and Syria) some more important than others (see Jordan and to a lesser degree Albania). In terms of trade openness, most MED countries have quite high openness indicators (import + export as a share of GDP) hence suggesting that changes in trade patterns, as a result of preferential agreements, could have important impacts on the overall performance of the economies concerned.

Table 1: Macroeconomic Indicators (2007)

	value added (% of GDP)			goods and services % GDP								
	Agriculture	Industry	Services, etc.	Exports	Imports	FDI (current US$ million)	GDP/capita (current US$)	GDP growth (annual %)	Inflation, GDP deflator (annual %)	Population, million	Surface area (sq. km)	days required to start a business
Albania	21.43	19.96	58.61	27.85	54.32	476.68	3404.6	6	3.16	3.18	28750	36
Algeria	8.18	61.09	30.73	46.79	23.38	1664.6	3996.3	3.1	7.47	33.85	2381740	24
Egypt	14.07	36.34	49.59	30.25	34.83	11578.1	1728.9	7.07	12.61	75.47	1001450	9
Israel[#]	2.7	30.2	67.1	43.9	43.9	9664.2	22834.9	5.37	-0.24	7.18	22070	34
Jordan	3.18	29.42	67.4	57.87	99.32	1835.4	2768.5	5.96	5.96	5.72	88780	14
Libya[~]	17	23	59	..	..	4689	9475.1	6.8	5.39	6.16	1759540	..
Morocco	13.73	27.31	58.95	35.8	44.93	2806.64	2434.1	2.72	3.77	30.86	446550	12
Syria	18.12	34.95	46.93	41.37	40.51	500	1,492.7	4.5	12.9	19.89	185180	43
Palestine (2006)*	8	13	79				1,100**	-8	3.6	2,4	5,860	
Tunisia	10.35	29.64	60.02	54.13	56.54	1619.61	3424.8	6.33	2.37	10.23	163610	11
Lebanon	6.41	23.99	69.6	25.32	49.86	2844.56	5943.8	2	4.9	4.10	10400	46
Mauritania	12.54	46.74	40.72	57.66	64.86	152.8762604	847.1	1.9	-2.56	3.12	1030700	65
Turkey (06)	8.67	28.31	63.02	22.05	27.15	22195	8877.1	4.62	7.59	73.89	783560	6
EU26[##]	1.87	26.07	70.40	38.79	38.51	1094849.3	34074.5	2.94	2.59	494.08	4330920.00	17.05

Source: World Bank – World Development Indicators.

[#] Israel value added per sector is taken from the CIA Factbook, values are for 2007

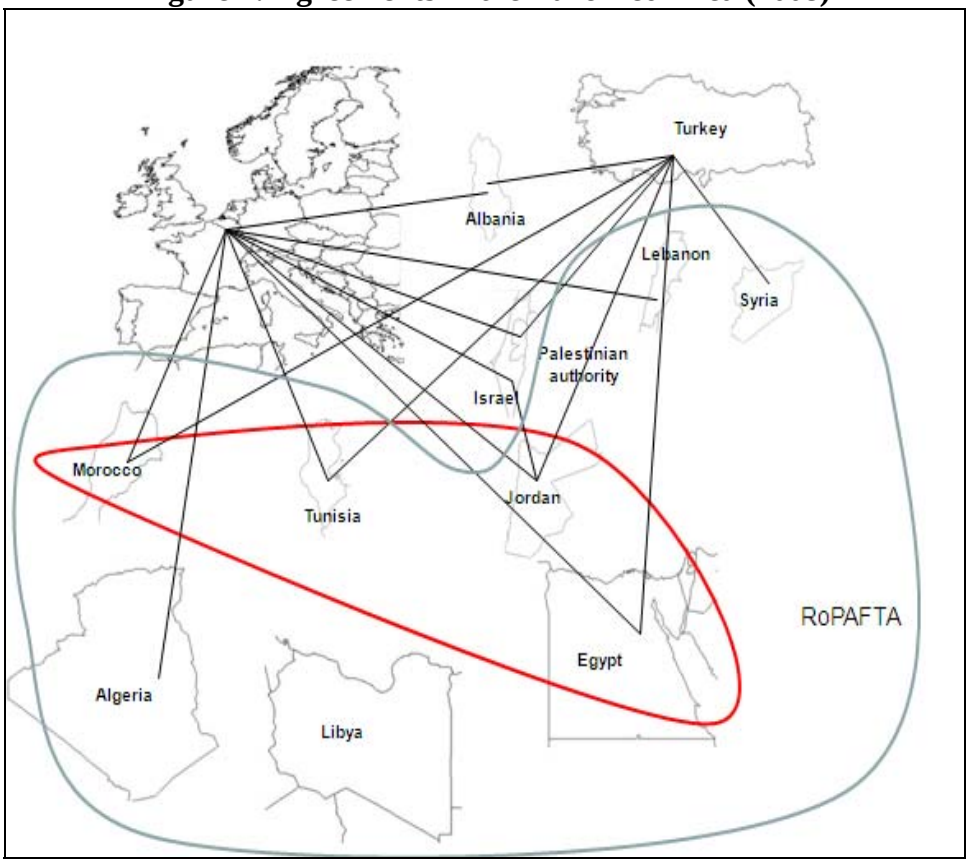
[~]Libya value added per sector is taken from the CIA Factbook, values are for 2004

*Values for Palestine Authority are from CIA factbook for 2006. ** value is PPP 2006

[##]Values are weighted averages (by GDP) for EU27 minus Malta

Figure 1 considers current bilateral relations in the EuroMed area in 2009. In terms of preferential liberalisation, it is worthwhile noting that the higher the amount of partners receiving preferential access to a given market, the higher the probability of capturing the least cost efficient producer of goods and hence the lower the scope for trade diversion. Each connecting line in Figure 1 identifies a different Association Agreements (AA) with the EU. Regional agreements the likes of PAFTA (Pan Arab Free Trade Area) and Agadir are highlighted in groupings, the larger circle for the former and the smaller for the latter. What stands out at first sight is the overlap of trade agreements in the region and hence the burden of managing overlapping agreements. Rules of Origin (henceforth RoO) serve as a tool for managing FTAs by preventing imports entering a preferential area through the country bearing the lowest tariff[2]. These rules delimit minimum processing activities for given goods so as to receive origin from a given country within an FTA. Where RoO serve an important purpose in avoiding trade deflection, they can also be used as protectionist measures. 'Spaghetti bowl' agreements such as those depicted in Figure 1 require an appropriate and efficient RoO regime so as to not impede trade unnecessarily. In terms of approximating the welfare effects of the proposed preferential agreements the degree of bilateral overlap is likely to provide an important challenge.

Figure 1: Agreements in the EuroMed Area (2008)



Source: WTO, RTA notified agreements

Black line: shows signed and notified bilateral agreements. Green circle: PAFTA. Red circle: Agadir Agreement

[2] This is sometimes referred to as trade deflection in the literature

Further to the agreements in the region, MED partners are also engaged in other preferential trading schemes. Table 2 shows all agreements in the region by date of entry into force. It is important to note that there is varying participation across the region in multilateral trade agreements (WTO). Currently Algeria, Lebanon and Libya are observers, Syria is in negotiations and the Occupied Palestinian Territories have not acceded.

Table 2 Bilateral Agreements in the MED region Feb 2009

	Agreement (Year of entry into force)
Albania	EU (2006), CEFTA (2007), Turkey (2008)
Algeria	PAFTA (1998), EU (2005)
Egypt	PAFTA (1998), EU (2004), Agadir (2006), EFTA (2007), Turkey (2007)
Israel	US (1985), EFTA (1993), Canada (1997), Turkey (1997), EU (2000), Mexico (2000)
Jordan	PAFTA (1998), US (2001), EU (2002), EFTA (2002), Singapore (2005), Agadir (2006)
Lebanon	PAFTA (1998), EU (2006)
Libya	PAFTA (1998)
Mauritania	
Morocco	PAFTA (1998), EFTA (1999), EU (2000), Turkey (2006), US (2006), Agadir (2006)
Syria	PAFTA (1998)
Tunisia	EU (1998), PAFTA (1998), EFTA (2005), Turkey (2005), Agadir (2006)
Turkey	EFTA (1992), EU (1996), Israel (1997), FYROM (2000), BiH (2003), Croatia (2003), Occ. Pal. Terr. (2005), Tunisia (2005), Morocco (2006), Egypt (2007), Syria (2007), Albania (2008), Georgia (2008)

Source: WTO RTA Database

Note: Some agreements, like COMESA do not figure in the table as they have not been notified to the WTO

Having outlined the macroeconomic background in the Mediterranean region and looked at the degree of planned or executed preferential liberalisation; we now turn to the analysis of tariff barriers to trade. These will allow us to grasp the magnitude of the trade creation or the trade diversion forces that may accompany preferential liberalisation.

2 ANALYSIS OF TARIFF BARRIERS TO TRADE

In analysing the welfare effects of a preferential trade agreements it is important to consider the size and the evolution of tariff barriers to trade. Tariffs indicate levels of protection and hence of distortions within an economy. High (low) tariffs imply higher (lower) magnitude effects from preferential liberalisation be these from trade creation or trade diversion. Table 3 shows the evolution of weighted average MFN tariffs by MED countries since 1995[3]. These are compositional so it is not uncommon to see increases in tariffs over time as imports structures change. Overall, a mixed message can be derived from the table. Most countries have seen reductions in tariffs but some more than others. In this respect, Albania, Lebanon and Tunisia have seen important reductions in their weighted average tariffs. Countries such as Israel and Turkey already had low tariffs so reductions have not been as pronounced. But tariffs remain somewhat high for Algeria, Egypt, Mauritania, Morocco and Tunisia.

[3] Note that MED country participation in the WTO during the period under investigation is imperfect: where most were members since 1995 (Egypt, Israel, Mauritania, Morocco, Tunisia and Turkey), Albania and Jordan joined in 2000, whilst Algeria, Lebanon, Libya and Syria are not members.

Table 3: Evolution of weighted Average MFN Tariff by Country

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Albania			14.41				11.28	8.35			7.36		5.86	
Algeria			16.93	17.26			15.16	12.99	11.97		11.66	11.93	11.61	
Egypt	16.65			13.72				13.79		13.1	13.7			
EU	4.38	4.35	3.78	3.43	2.94	3.15	3.27	3.24	2.89	2.74	2.72	2.59	2.56	
Israel										2.71	2.6	2.64	2.52	2.61
Jordan						18.92	12.14	12.69	11.39		12.02	9.34	9.22	
Lebanon					11.59	16.92	8.23	6.26		5.33	5.55	5.54	5.59	
Libya		21.26						25.14						
Mauritania							9.92					7.15	10.06	
Morocco			17.31			25.42	24.64	24.49	24.88		19.86	18.21	17.95	
Syrian								15.5						
Tunisia	27.36			25.67				26.39	22.73	22.4	19.65	19.17		
Turkey	6.74		5.65		5.35				4.35		3.84	3.9	4.38	

Source: Trains

We also consider the tariff structure across the MED5 countries to determine the degree of current distortions and again to approximate the potential magnitude of the trade creation or trade diversion forces. Maintaining high tariffs vis-à-vis a non-preferential partner can enhance the scope for trade diversion, similarly removing high tariffs vis-à-vis a preferential partner can also cause trade creation. The height of the tariff tells us how large the effect will be, but determining which will dominate requires looking into other factors such as cost structures. Table 4 considers simple average tariffs of MED5 countries by Broad Economic Categories (BEC) and counts the amount of tariff peaks in each category[4]. This is of interest as it allows us to capture protection according to types of goods and to investigate if there is any evidence of targeted protection. Tariffs appear to be highest for 'food and beverages' and for 'consumer goods', with 'transport equipment' and 'goods n.e.s' closely following. The presence of tariff peaks shows signs of targeted protection in the 'food and beverages' sector and in 'Consumer goods' for Israel, Jordan and Tunisia. To a lesser degree, there is also evidence of targeted protection in the 'Industrial Supplies' category for Israel and Tunisia. This could be a sign of the existence of tariff escalation in these countries where countries charge higher tariffs for higher value added products hence increasing the effective rate of protection.

[4] Tariff peaks are defined as three times the average tariff of the category

Table 4: MED5 Unweighted tariffs by Broad Economic Categories

	Egypt (2005)		Israel (2007)		Jordan (2007)		Morocco (2007)		Tunisia (2006)	
	Simple average	Tariff peaks	Simple average	Tariff peaks	Simple average	Tariff peaks	Simple average	Tariff peaks	Simple average	Tariff peaks
Capital goods (except transport equipment),	4.61	0	3.9	0	6.92	0	6.87	0	11.52	4
Consumer goods not elsewhere specified	29.27	0	9.48	17	23.19	10	33.12	0	36.06	18
Food and beverages	76.75	16	19.27	148	22.11	17	52.75	227	73	889
Fuels and lubricants	4.7	0	1.82	0	12.99	0	11.21	0	6.87	0
Industrial supplies not elsewhere specified	9.46	1	2.88	10	6.02	2	18.88	2	19.22	43
Transport equipment and parts and accessories ther	11.6	6	3.04	0	15.06	0	21.25	0	22.55	0
Goods not elsewhere specified	10.98	0	0.67	0	18.99	0	7.73	0	18.05	0

Source: Trains. (Tariff peaks are three times average tariffs)

Table 5 shows MED5 country tariff structure by SITC categories for the latest available year[5]. Overall there is some heterogeneity in tariff structures across the different MED5 countries. Where Tunisia's tariffs are the highest in the sample, Israel's are lowest suggesting that the welfare effects from preferential liberalisation should be strongest in Tunisia and weakest in Israel. Egypt shows very high tariffs in the 'Beverages and Tobacco' with moderate tariffs on 'Chemicals' and manufactures in general[6]. In Israel, the highest tariffs are in the 'Food and live animals' sector closely followed by 'Miscellaneous Manufactures', where most other tariffs are low suggesting that in these sectors, the shallow integration welfare effects from an agreement should also be low. Protection structures in Jordan, apart from the 'beverage sector', are highest in the 'commodities nes' and 'Miscellaneous Manufactures' and relatively low in the 'Chemicals' sector. For Morocco protection levels are generally high and are concentrated in the 'Food and Live Animals', the 'Manufactured Goods', the 'Miscellaneous Manufactures' and the 'Chemical' sectors. In turn, the EU has relatively low tariffs in most categories where they are highest in 'Food and Live animals'.

Table 5 weighted average MFN tariffs by SITC rev.3

	Egypt (2005)	Israel (2008)	Jordan (2007)	Morocco (2007)	Tunisia (2006)	EU (2008)
Animal/veg oil/fat/wax	5.55	3.71	11.23	4.57	26.47	5.16
Beverages and tobacco	2616.29	3.9	50.06	27.7	28.94	5.93
Chemicals/products n.e.s	16.47	2.84	2.7	17.04	13.2	2.17
Commodities nes	6.72	0	18.77	5.04	38.64	0
Crude mater.ex food/fuel	1.91	0.41	4.42	11.8	13.25	0.22
Food & live animals	11.74	9.75	9.47	39.01	44.89	7.21
Machinery/transp equipmt	10.02	3.1	9.94	13.43	16.57	2.8
Manufactured goods	11.65	1.29	7.35	24.05	24.71	2.51
Mineral fuel/lubricants	6.96	0.26	10.57	8.71	3.88	0.37
Miscellaneous manuf arts	14.91	8.26	16.87	24.01	27.45	5.86

Source: Trains

[5] 10 separate SITC categories are identified from over 3000 products.

[6] The high tariff seen in the 'beverage and tobacco' sector is not uncommon for a Muslim country where alcoholic beverages are highly taxed.

As seen in Table 2, some of the AAs have already entered into force hence it is important to consider the degree of liberalisation that has taken place between the EU and MED partners. From the perspective of the EU, MED partners currently receive duty free access to the EU for nearly all trade (exceptions are mainly in agricultural goods where further EU liberalisation is being negotiated). These preferences are an extension of the unilateral preferences offered during the 70's that are formalised with reciprocity in the AA. Hence the main impact of the N-S agreements will depend on the extent of liberalisation of MED country schedules with respect to the EU.

In Table 6 we look at how the AAs tariff dismantling process has been evolving from the perspective of tariff liberalisation of MED country schedules. We do so by looking at highly disaggregated tariff line data from TRAINS for the MED5 countries. The analysis is limited by the lack of available data hence we present values where there is information on both the MFN tariff and the preferential tariff granted to the EU. We further specify, in brackets, the year that the AA was implemented. The first row presents the unweighted average MFN tariff, whilst the second looks at the unweighted preferential tariff that the EU faces in the countries under investigation. The third row looks at the preference margin that the EU receives. This is calculated as the average preference margin across all tariff lines (which is also the same as the difference between the MFN tariff and the tariff that the EU faces). The third line then looks at the share of tariff lines where there is a preference for the EU in total tariff lines (note that if the MFN tariff is zero, then there is no preference). The last two rows show the share of tariff lines that are zero under the MFN and the EU AA regimes (note that the degree of duty free access that is granted by the AA is the difference between the AA regime and the MFN zero). For Egypt we only have data for 2005 which is one year after the AA agreement entered into force hence we do not expect the tariff dismantling process to have made much of an impact. This is confirmed where we see that the preferential margin stands at 0.55 only and where there has been some form of preferential liberalisation for 27.15% of tariff lines. However the share of duty free tariff lines covered by the agreement with the EU was only 6.3% where 5.5% were already zero from the MFN tariff hence the agreement, in the first year gave duty free access to the EU in only 0.73% of lines. For Israel we see that 8 years after the agreement entered into force the tariff schedules have been substantially liberalised where 94.98% of tariff lines are duty free for imports from the EU (equating to more than 37 percentage points above the duty free MFN schedule). Jordan's agreement entered into force in 2002 and there does not seem to have been much preferential liberalisation during the three years for which there is data for. The unweighted MFN tariff stands at 14.28 whilst the EU preferential tariff is 13.76 and there is no difference between MFN duty free lines and EU preferential tariff lines. For Morocco, 8 years after the agreement was put into force, the amount of lines where there is a preference stands at 72.58% where many of these are zero as seen in the last row. Tunisia, which was the first Mediterranean partner to put into force an AA, shows how 63.75% of tariff lines are preferential with respect to the EU 7 years after the agreement entered into force. However, the 39.19% in the bottom line suggests that there is still some time to go till the agreement fully liberalises 'substantially all trade'.

Overall, the degree of tariff dismantling carried out by the MED5 countries appears to be relatively slow but is still in line with art XXIV's understanding of 'reasonable amount of time' (i.e. around 8-12 years). In terms of the amount of trade that has been liberalised, this varies

considerably across MED5 countries. Israel is the country which has undertaken the most preferential liberalisation with 94.98% of EU imports being duty free. Comparing this to Tunisia and Morocco and bearing in mind a similar time span in the data, we see how these countries show a much slower degree of liberalisation as Morocco only has 51% of tariff lines completely duty free for the EU whilst Tunisia grants duty free access to the EU in 39.19% of tariff lines.

Table 6: Liberalisation of tariff schedules of MED5 countries since AAs

Country (year of implementation of AA)	Egypt (2004)	Israel (2000)		Jordan (2002)	Morocco (2000)		Tunisia (1998)
Year	2005	2004	2008	2005	2005	2008	2005
Av MFN	19.96	5.83	5.61	14.28	29.52	24.08	31.70
Av EU	19.41	1.36	1.42	13.76	20.08	11.97	18.01
Av Pref Margin	0.55	4.47	4.19	0.52	9.44	12.11	13.69
share of Lines with Preference margin	27.15%	41.10%	38.33%	6.63%	87.59%	72.58%	63.75%
Share of Duty Free MFN Lines	5.50%	54.67%	57.12%	38.28%	0.13%	16.60%	15.00%
Share of Duty Free EU Lines	6.23%	95.42%	94.98%	38.28%	40.32%	51.00%	39.19%

Source: Own calculations, Trains raw tariff data
Note: All tariffs are unweighted averages

In parallel to the AA liberalisation there has also been substantial liberalisation in the region through the PAFTA agreement. This agreement, which came into force in 1998, has liberalised near all tariff lines amongst its signatories (Algeria, Egypt, Jordan, Lebanon, Libya, Morocco, Syria and Tunisia). Further to this agreement, the Agadir agreement has sought to promote integration amongst some PAFTA member countries which have signed AAs with the EU (Egypt, Jordan, Morocco and Tunisia). The degree of implementation of this agreement, which entered into force in 2006, mirrors that of the implementation of PAFTA where most signatory countries benefit from near duty free access to each other's market.

3 ANALYSIS OF TRADE BY GEOGRAPHICAL ORIGIN AND DESTINATION

As a general rule of thumb, and with regard to existing trends, countries that already show important pre-established trade links are more likely to create a welfare enhancing FTA. These 'natural trading partners' already show bilateral commercial interest and tend to have trade creating complementarities. Table 7 identifies the distribution of exports by geographical destination for the MED countries. Looking at the top panel, which shows export flows for 2007, we see how intra-MED exports are relatively small where they average less than 7% of total exports. The Occupied Palestinian Territories appear to be an outlier to this trend with important export links to Israel[7]. Table 7 further shows how Turkey is the main destination of intra-regional exports, but we still see that its share of total MED exports represents less than 2% of total exports from within the region. The countries which export most heavily to the region, in terms of shares, are Lebanon, Syria, Egypt and Jordan. Not surprisingly, there are pre-existing bilateral agreements across these partners be these through PAFTA (1998) or the Agadir Agreement

[7] This is due to transhipment of goods through Israel. It is important to note that this trade link represents a very small fraction of intra-med trade.

(2006). Overall, the main destination of MED exports is heavily skewed towards the EU which occupies just under 50% of total MED exports. NAFTA also appears as an important destination of exports attracting around 18% of total MED exports. This is more evident for the countries which have signed an agreement with the USA, notably Israel and Jordan. When looking at imports, the bottom panel of Table 7 paints a very similar picture. Here we see little incidence of intra-MED imports and observe how the origin of imports remains heavily skewed to the EU. There is also evidence of strong imports from the RoW grouping taking a 29% share and ASEAN3 becoming a preferred origin of imports over the NAFTA region.

Overall, Table 7 suggests that the MED region's natural trading partner is the EU. In that respect and on the basis of current flows, the North-South FTA agreements should be trade creating. However, there is little evidence of South-South integration, and as a result the proposed South-South FTAs could have little welfare impact, be this positive or negative. It is also worthwhile noting that Israel and Jordan show important trade connections with the NAFTA region which are probably the result of the preferential scheme operating between these partners. In this respect, the agreement with the EU could cause some trade re-orientation where the access of the EU in Jordan is matched to that of the US. This will be less apparent in Israel as the EU already enjoys duty free access to this market.

Table 7: Distribution of Trade 2007

EXPORTS

	Albania	Algeria	Egypt	Israel	Jordan	Lebanon	Libya	Mauritania	Morocco	Palestine Territory	Syria	Tunisia	Turkey	EU25	ASEAN3*	GCC**	NAFTA	RoW	Intra-Med	Extra Med
Albania		0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	2.26%	82.11%	2.59%	0.00%	0.64%	12.37%	2.28%	97.72%
Algeria	0.00%		0.71%	0.00%	0.01%	0.01%	0.02%	0.09%	1.02%	0.00%	0.01%	0.14%	3.40%	43.56%	4.32%	0.04%	37.95%	8.71%	5.41%	94.59%
Egypt	0.06%	0.37%		0.13%	1.87%	2.02%	1.53%	0.17%	1.04%	0.28%	1.29%	0.78%	2.72%	28.78%	7.57%	4.13%	7.07%	40.19%	12.26%	87.74%
Israel	0.02%	0.00%	0.28%		0.46%	0.00%	0.00%	0.00%	0.03%	0.00%	0.00%	0.00%	2.21%	29.03%	7.02%	0.08%	36.81%	24.05%	3.01%	96.99%
Jordan	0.01%	2.04%	1.43%	2.66%		2.19%	0.57%	0.00%	0.15%	0.86%	4.70%	0.25%	0.42%	3.15%	5.92%	17.09%	27.82%	30.73%	15.29%	84.71%
Lebanon	0.21%	0.54%	4.63%	0.00%	3.52%		0.11%	0.08%	0.59%	0.00%	8.57%	0.53%	4.64%	17.05%	4.70%	20.49%	2.81%	31.54%	23.41%	76.59%
Libya																				
Mauritania	0.00%	0.28%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	38.82%	5.76%	0.00%	0.00%	55.13%	0.29%	99.71%
Morocco	0.00%	0.52%	0.28%	0.00%	0.23%	0.18%	0.29%	0.30%		0.01%	0.26%	0.55%	0.92%	71.88%	2.79%	0.80%	3.49%	17.51%	3.54%	96.46%
Palestine Territory	0.00%	0.28%	0.18%	84.74%	6.67%	0.00%	0.00%	0.00%	0.00%		0.01%	0.00%	0.15%	5.19%	0.06%	1.47%	1.04%	0.19%	92.04%	7.96%
Syria	0.01%	2.45%	3.84%	0.00%	4.61%	3.22%	1.69%	0.06%	1.89%	0.00%		0.80%	5.24%	43.04%	0.55%	16.33%	2.61%	13.66%	23.81%	76.19%
Tunisia	0.01%	1.89%	0.57%	0.00%	0.04%	0.04%	4.60%	0.10%	1.14%	0.00%	0.04%		1.19%	79.22%	0.54%	0.59%	1.22%	8.80%	9.64%	90.36%
Turkey	0.27%	1.15%	0.84%	1.55%	0.36%	0.37%	0.60%	0.01%	0.67%	0.02%	0.74%	0.49%		51.86%	2.12%	5.19%	4.42%	29.33%	7.08%	92.92%
MED	0.12%	0.73%	0.82%	0.76%	0.49%	0.33%	0.59%	0.05%	0.65%	0.02%	0.46%	0.30%	1.58%	46.61%	3.56%	3.29%	18.28%	21.35%	6.89%	93.11%

IMPORTS

	Albania	Algeria	Egypt	Israel	Jordan	Lebanon	Libya	Mauritania	Morocco	Palestine Territory	Syria	Tunisia	Turkey	EU25	ASEAN3*	GCC**	NAFTA	RoW	Intra-Med	Extra Med
Albania		0.10%	0.57%	0.27%	0.01%	0.08%	0.03%	0.00%	0.02%	0.00%	0.03%	0.04%	7.26%	57.77%	8.22%	0.05%	1.31%	24.24%	8.41%	91.59%
Algeria	0.00%		0.92%	0.00%	0.36%	0.09%	0.00%	0.01%	0.24%	0.01%	0.08%	0.77%	3.33%	51.11%	17.34%	0.78%	10.14%	14.80%	5.82%	94.18%
Egypt	0.02%	1.37%		0.02%	0.24%	0.38%	0.73%	0.12%	0.09%	0.00%	0.54%	0.06%	1.69%	22.27%	11.97%	14.07%	10.14%	36.30%	5.26%	94.74%
Israel	0.00%	0.00%	0.17%		0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.84%	36.21%	13.47%	0.01%	14.74%	32.46%	3.11%	96.89%
Jordan	0.00%	0.00%	4.37%	1.10%		0.77%	0.01%	0.00%	0.20%	0.23%	2.69%	0.04%	2.85%	24.23%	19.51%	24.91%	5.19%	13.91%	12.25%	87.75%
Lebanon	0.00%	0.06%	5.50%	0.00%	0.84%		0.42%	0.02%	0.41%	0.00%	2.15%	0.14%	3.99%	35.04%	10.06%	8.61%	10.08%	22.68%	13.53%	86.47%
Libya																				
Mauritania	0.00%	0.11%	0.68%	0.00%	0.01%	0.03%	0.00%		1.53%	0.00%	0.03%	0.62%	0.39%	41.19%	13.16%	2.56%	4.59%	35.10%	3.40%	96.60%
Morocco	0.00%	2.50%	1.08%	0.00%	0.02%	0.08%	0.31%	0.00%		0.00%	0.08%	0.64%	2.68%	51.40%	9.99%	6.37%	6.98%	17.88%	7.39%	92.61%
Palestine Territory	0.00%	0.00%	0.88%	73.47%	1.43%	0.00%	0.00%	0.01%	0.01%		0.00%	0.00%	2.61%	7.84%	9.32%	0.17%	1.01%	3.26%	78.41%	21.59%
Syria	0.00%	0.57%	4.39%	0.00%	1.04%	1.16%	0.80%	0.00%	0.24%	0.00%		0.06%	3.90%	24.42%	16.78%	9.85%	2.64%	34.18%	12.15%	87.85%
Tunisia	0.00%	1.57%	1.07%	0.00%	0.09%	0.08%	3.38%	0.01%	0.40%	0.00%	0.26%		2.60%	64.32%	6.98%	1.21%	4.13%	13.92%	9.45%	90.55%
Turkey	0.01%	1.24%	0.40%	0.64%	0.01%	0.07%	0.24%	0.00%	0.12%	0.00%	0.22%	0.14%		37.40%	15.27%	1.87%	5.52%	36.86%	3.08%	96.92%
MED	0.01%	0.94%	0.96%	1.01%	0.13%	0.13%	0.37%	0.00%	0.13%	0.01%	0.30%	0.19%	1.59%	39.89%	14.16%	3.22%	7.32%	29.63%	5.78%	94.22%

Source: Own calculations, Comtrade. *** ASEAN+3**: Brunei, Cambodia, China, Indonesia, Japan, Korea, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. ****GCC** (Gulf Cooperation Council): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates

Where a snapshot in time, as in the preceding analysis, shows us the current level of integration, looking at changes in time can highlight existing trends which may be amplified by increased participation in bilateral or multilateral agreements. Table 8 looks at annual growth rates of MED country trade where we divide the world into the main regional partners as in Table 7. The top panel of Table 8 shows us the annual growth rate of exports whilst the bottom panel looks at annual growth rates of imports. One has to be a little cautious in the interpretation of the values reported in Table 8 where these have to be compared to the pre-existing shares of export noted in Table 7. High growth rates may be due to there being very low trade between partners (which is the case for intra-MED trade). The highest rate of annual growth of exports in the table relates to Palestinian exports to the ASEAN + 3 grouping (in excess of 200%), from Table 7 we see that this represents only 0.18% of total Palestinian exports in 2004. It is likely that trade has grown from a very modest value to a modest value. Overall, the rate of growth of total exports across MED countries appears to be relatively high (with the exception of Palestine) averaging over 13% annually during the period under investigation. Growth of exports to the EU has been highest for Albania, Algeria and Turkey where we also see somewhat modest growth in Lebanon, Syria, Jordan and Israel. The latter two have witnessed much higher growth in exports to the NAFTA region which could be a direct result from the established FTAs with the USA. There is also evidence of important growth to the ASEAN3 and GCC regions. Of further interest is the strong positive growth of exports to MED partners. Even though export values remain very modest (see Table 7) there is evidence of high growth rates averaging 14% annually[8]. Palestine, Morocco and Egypt show much lower rates of growth to the region. To the extent that a trade agreement can magnify underlying trends in export growth, it is possible that the growing trend of intra-MED trade is amplified as a result of the S-S agreement.

In terms of growth of imports we note a more irregular pattern with imports from the EU growing most for Mauritania, Morocco and Turkey but falling rates of growth for Egypt and Palestine and modest rates for Lebanon and Israel. It is also interesting to see that growth of imports from NAFTA appear to be lower than those for the EU even for preferential partners such as Israel and Jordan. The ASEAN grouping shows strong growth as an origin of imports but the share in total imports from this region in 2004 remains low at an average of 11%. Overall, the growth analysis shows that trade with the EU remains important both as a destination and an origin market. Furthermore, we perceive an important increase in intra-MED trade but this market continues to represent a very small share of total exports. The growth of exports to the RoW and to ASEAN3 and GCC suggests some evidence of export destination diversification within the region.

From Table 8 we see how growth of exports to the EU by MED countries seems to be smaller than the growth of exports to the world. This is not necessarily surprising as most MED countries already benefited from duty free access to the EU through previous preferential agreements. Furthermore, this is a period where the rest of the world would have been liberalising considerably hence MED exports would have responded to this liberalisation. In terms of imports, we also see that the rate of growth of imports from the world is higher than that from the EU. This could be explained by the slow implementation of the AA tariff dismantlement[9].

[8] As a point of comparison, the average annual growth rate of world exports during the period under investigation was near 9.5%.

[9] See annex to the appendix A.1 and A.2 for growth of trade in total and non-oil trade.

Table 8: Annual Growth Rates of MED Country Trade by Origin/Destination 1996-2006

	EXPORT						
	World	ASEAN + 3	EU25	MED	GCC	NAFTA	RoW
Albania	16.49%	**42.19%**	16.30%	29.37%		7.14%	19.76%
Algeria	17.24%	22.47%	15.17%	22.07%	**41.01%**	24.04%	12.68%
Egypt	13.71%	12.88%	10.91%	8.71%	14.36%	9.24%	**24.97%**
Israel	8.09%	4.65%	5.81%	12.96%	**24.02%**	10.22%	9.11%
Jordan	16.40%	4.02%	4.12%	18.30%	10.63%	**73.35%**	12.49%
Lebanon	16.61%	27.20%	2.18%	18.75%	10.81%	5.48%	**31.92%**
Lybia							
Mauritania	9.28%	22.42%	9.69%	**52.73%**		-15.73%	-14.84%
Morocco	9.23%	-3.22%	**10.75%**	2.30%	2.74%	4.65%	9.82%
Palestine	1.01%	**200.11%**	16.30%	0.83%	-8.07%	103.25%	51.21%
Syria	10.79%	18.82%	3.39%	24.75%	16.06%	**32.13%**	20.37%
Tunisia	8.31%	2.10%	8.15%	10.72%	4.69%	**13.97%**	7.82%
Turkey	14.24%	8.49%	14.51%	11.70%	**16.54%**	12.40%	15.57%
MED	13.16%	7.20%	12.63%	14.00%	17.84%	14.49%	13.94%
	IMPORT						
	World	ASEAN + 3	EU25	MED	GCC	NAFTA	RoW
Albania	15.55%	**73.49%**	11.98%	21.64%	44.18%	21.18%	32.53%
Algeria	10.29%	**17.43%**	8.93%	12.55%	13.22%	1.86%	-0.05%
Egypt	2.24%	4.86%	-3.80%	**22.50%**	12.85%	-4.28%	0.37%
Israel	5.04%	10.56%	1.68%	13.50%	**37.32%**	0.44%	0.30%
Jordan	14.16%	17.46%	8.91%	24.90%	**41.42%**	5.43%	4.85%
Lebanon	3.53%	7.50%	0.82%	6.50%	**16.78%**	-2.79%	5.78%
Lybia							
Mauritania	35.29%	27.19%	21.37%	15.47%	38.39%	19.85%	**55.71%**
Morocco	10.82%	**16.30%**	9.98%	12.94%	14.99%	2.82%	5.95%
Palestine	5.24%	14.34%	-3.92%	5.79%	**66.88%**	2.53%	9.59%
Syria	18.95%	16.42%	3.49%	**34.69%**	26.34%	1.19%	30.62%
Tunisia	6.84%	11.37%	5.74%	9.10%	**13.95%**	1.61%	4.36%
Turkey	12.21%	**17.70%**	9.12%	10.89%	6.13%	4.61%	7.11%
MED	9.92%	15.60%	6.88%	16.01%	15.80%	1.89%	2.75%

Source: Own calculations from Comtrade

Values for; Jordan: 97-06; Lebanon: 97-05; Mauritania: 00-05; Palestine Territories: 00-06; Syria: 00-06.

For some MED countries, the AA agreements have already entered into force hence some of the trade effects of an agreement will have already taken place. It is also important to acknowledge that previous unilateral preferences had been granted to most MED countries during the 70s hence the shallow effects of closer integration between the EU and MED countries will largely depend on the reciprocation of preferences of MED countries' tariff schedules.

4 DECOMPOSITION OF TRADE BY SECTOR

This section looks at the evolution of export and import patterns in the MED region and across the MED5 partners at a finer level of disaggregation. Here we are concerned with capturing changes in broad sectoral trading patterns across time where we choose the initial period of analysis to match the beginning of the Barcelona process. These changes in time are interesting both from a structural organisation perspective and in terms of identifying the effects of closer integration and should be considered with the results reported in section 2 of this chapter. Table 9 shows the evolution of MED trade with the world from 1996 to 2006. The importance of mineral fuels becomes directly apparent where this sector occupies a third of total exports of the region to the world. In 2006, there is an important rise in the share of this sector in total trade which appears to be driven by increases in oil prices. This effect masks the important export

growth in manufactures which sees steady rises during this period. T&C exports are comprised within these manufacturing categories - apparel lies in the sector heading 'Miscellaneous manuf' and textiles in the 'Manufactured goods' category. In terms of imports, these tend to be concentrated in the 'machinery and transport equipment' and the 'Manufactured goods' categories and have shown significant increases in volume in time. The decrease in these shares throughout the sample period is due to the sharp increase in imports of 'Chemical products' and 'Mineral fuels'.

Table 9: Evolution of MED trade to the world by SITC categories 1996-2006 (%)

	EXPORTS						IMPORTS					
Product Name	1996	1998	2000	2002	2004	2006	1996	1998	2000	2002	2004	2006
Animal/veg oil/fat/wax	0.45	0.39	0.30	0.16	0.53	0.46	1.41	1.54	0.92	1.17	1.07	0.94
Beverages and tobacco	0.78	0.79	0.47	0.47	0.39	0.31	1.08	1.26	1.06	0.85	0.67	0.56
Chemicals/products n.e.s	6.60	7.73	6.47	6.88	6.54	6.21	10.41	11.08	10.49	11.70	12.03	11.72
Commodities nes	2.68	3.23	1.68	2.01	1.29	1.35	1.23	1.76	2.20	2.50	2.11	1.88
Crude mater.ex food/fuel	4.29	4.53	3.39	3.11	3.06	2.86	4.32	3.98	3.90	4.16	4.35	4.43
Food & live animals	8.51	8.35	5.91	6.63	5.93	5.07	9.85	8.77	7.87	8.56	6.97	6.34
Machinery/transp equipmt	10.01	13.57	14.62	14.51	16.07	15.49	36.24	37.48	38.33	33.97	36.07	33.76
Manufactured goods	16.13	18.48	17.66	19.26	19.30	16.40	22.54	21.55	21.05	22.88	21.96	21.65
Mineral fuel/lubricants	32.72	22.55	32.77	28.09	30.13	38.81	4.02	3.32	5.51	5.10	6.54	10.55
Miscellaneous manuf arts	17.82	20.39	16.73	18.87	16.76	13.06	8.89	9.25	8.67	9.11	8.23	8.18

Source: Own calculations, Comtrade (mirror flows)

It is also worthwhile considering how patterns of trade have evolved with respect to the EU. In Table 8 we saw how the annual growth of trade with the EU was significant both at the export and import level, Table 10 looks at this evolution for the MED region according to SITC categories. Exports to the EU continue to be driven by mineral fuels where the increasing share in 2006 is driven by the oil price effect. Most notable from Table 10 is the sharp rise in exports of 'Machinery/Transport equipment' and the levelling off of exports in 'Miscellaneous manufactures'. In terms of imports, the 'Machinery and transport equipment' sector remains most important with an average share of 40% of total imports from the EU with 'Manufactured goods' taking about a fifth of total imports from the EU.

Table 10: Evolution of MED trade to the EU by SITC categories 1996-2006 (%)

	EXPORTS						IMPORTS					
Product Name	1996	1998	2000	2002	2004	2006	1996	1998	2000	2002	2004	2006
Animal/veg oil/fat/wax	0.54	0.38	0.29	0.12	0.64	0.63	0.63	0.92	0.54	0.46	0.34	0.12
Beverages and tobacco	0.39	0.40	0.30	0.33	0.28	0.24	0.72	0.79	0.76	0.81	0.74	0.78
Chemicals/products n.e.s	4.44	5.18	4.50	4.70	4.39	3.85	12.02	13.16	12.51	14.72	14.51	14.78
Commodities nes	3.46	3.77	0.35	0.42	0.34	0.32	1.18	1.42	2.46	2.98	2.68	2.37
Crude mater.ex food/fuel	4.10	4.26	3.08	2.83	2.70	2.54	3.47	2.75	2.44	2.81	2.74	3.42
Food & live animals	8.02	7.93	5.43	6.14	5.84	5.15	6.83	6.82	5.64	5.69	4.44	4.23
Machinery/transp equipmt	7.87	11.61	11.94	14.35	17.56	17.21	40.15	41.11	42.98	38.46	42.73	42.34
Manufactured goods	10.78	13.55	12.34	12.91	13.24	11.38	24.06	22.03	20.63	22.36	20.25	18.68
Mineral fuel/lubricants	38.13	27.08	41.57	34.82	33.94	42.27	2.10	1.84	3.56	2.42	3.47	5.19
Miscellaneous manuf arts	22.26	25.82	20.19	23.37	21.07	16.41	8.83	9.15	8.47	9.30	8.10	8.08

Source: Own calculations, Comtrade (mirror flows)

We also consider the evolution of trading structures of the MED5 countries, again with respect to the world and to the EU. Table 11 compares shares of trade according to SITC categories for 1996 and 2006 across the MED5 focus countries. Firstly, we notice little commonality across MED5 exports to the world in 1996 where Morocco mainly exports 'Miscellaneous manufactures' and 'Food & Live Animals' whilst Egypt's main exports are in 'mineral Fuels and 'Manufactured goods'. Israel's main export sectors are 'Manufactured goods' and 'Machinery/ transport Equipment' where Jordan exports mainly 'Chemicals' and 'Crude Material'. Tunisia on the other hand primarily exports 'Miscellaneous Manufactures' and 'Chemicals'. In 2006 these patterns remain for Morocco, Egypt and Israel where there are important changes in Jordan and Tunisia. The latter sees significant increases in exports of 'Machinery/Transport Equipment' and the former shows increased specialisation in 'Miscellaneous Manufactures'. Looking at imports, elements of commonality appear across partners where most imports are concentrated in the 'Machinery/Transport Equipment' and the 'Manufactured Goods' sectors.

Table 11: Structure and Evolution of Trade of Med-5 with the world 1996 and 2006

	EXPORTS									
	1996					2006				
Product Name	MAR	EGY	ISR	JOR	TUN	MAR	EGY	ISR	JOR	TUN
Animal/veg oil/fat/wax	0.92%	0.08%	0.03%	0.17%	2.81%	1.14%	0.10%	0.02%	0.41%	5.77%
Beverages and tobacco	0.14%	0.15%	0.07%	0.26%	0.12%	0.13%	0.21%	0.05%	0.19%	0.26%
Chemicals/products n.e.s	13.78%	2.71%	13.23%	39.37%	11.34%	10.42%	6.48%	17.53%	28.87%	7.29%
Commodities nes	0.23%	0.79%	1.55%	0.99%	0.14%	0.76%	1.34%	2.15%	3.86%	0.12%
Crude mater.ex food/fuel	10.42%	3.76%	3.53%	28.90%	2.57%	9.77%	4.01%	2.11%	8.81%	2.03%
Food & live animals	25.14%	8.32%	5.71%	12.46%	3.79%	20.37%	7.94%	3.57%	5.75%	3.41%
Machinery/transp equipmt	8.23%	2.18%	25.97%	5.34%	8.59%	19.97%	4.53%	24.26%	5.72%	21.53%
Manufactured goods	4.97%	14.30%	36.06%	5.62%	6.46%	4.21%	20.47%	36.83%	6.16%	7.99%
Mineral fuel/lubricants	0.86%	56.48%	0.74%	1.98%	9.46%	2.92%	46.41%	2.43%	0.00%	12.30%
Miscellaneous manuf arts	35.31%	11.23%	13.11%	4.92%	54.72%	30.32%	8.49%	11.05%	40.23%	39.30%
	IMPORTS									
	1996					2006				
	MAR	EGY	ISR	JOR	TUN	MAR	EGY	ISR	JOR	TUN
Animal/veg oil/fat/wax	2.19%	2.65%	0.21%	2.64%	1.62%	1.11%	1.75%	0.16%	1.66%	1.40%
Beverages and tobacco	1.14%	0.77%	0.58%	0.71%	0.59%	0.37%	0.67%	0.39%	1.00%	0.40%
Chemicals/products n.e.s	11.09%	10.26%	8.57%	12.33%	8.24%	8.97%	10.66%	10.83%	8.38%	9.44%
Commodities nes	0.51%	0.94%	2.11%	1.34%	0.71%	1.23%	3.03%	2.05%	1.53%	1.01%
Crude mater.ex food/fuel	5.49%	4.64%	1.93%	2.58%	3.96%	3.61%	6.99%	1.74%	1.32%	2.80%
Food & live animals	11.05%	15.59%	5.31%	18.14%	6.69%	7.12%	11.31%	4.48%	10.22%	6.05%
Machinery/transp equipmt	28.91%	37.28%	35.97%	33.55%	29.55%	31.75%	31.15%	29.89%	28.80%	31.53%
Manufactured goods	26.36%	16.79%	31.63%	19.97%	31.19%	22.10%	17.49%	33.58%	16.63%	26.03%
Mineral fuel/lubricants	5.09%	1.37%	3.25%	0.67%	4.75%	14.54%	10.24%	7.04%	22.04%	10.63%
Miscellaneous manuf arts	8.17%	9.71%	10.44%	8.07%	12.69%	9.18%	6.72%	9.85%	8.41%	10.72%

Source: Own calculations, Comtrade (mirror flows)

Similarly, Table 12 maps the evolution of trade across the MED5 countries in relation to the EU market for 1996 and 2006. Here there are very similar patterns to those reported with the world in the previous table. Some differences are apparent in Jordan's export structure to the EU where the 'crude material' sector remains strong both in 1996 and in 2006 and where 'Chemicals' take a third of total exports to the EU. Again, this has to be viewed in the context of Table 7 where the share of exports to the EU is low and hence the changes in shares can be more pronounced. In terms of imports, we see how these are generally in the 'Machinery/Transport equipment' sector and the 'Manufactured goods' sector.

Table 12: Structure and Evolution of Trade of Med-5 with the EU 1996 and 2006

	EXPORTS									
	1996					2006				
Product Name	MAR	EGY	ISR	JOR	TUN	MAR	EGY	ISR	JOR	TUN
Animal/veg oil/fat/wax	1.01%	0.10%	0.03%	0.01%	3.18%	1.30%	0.03%	0.03%	1.89%	6.17%
Beverages and tobacco	0.17%	0.03%	0.07%	0.94%	0.11%	0.16%	0.07%	0.08%	0.08%	0.15%
Chemicals/products n.e.s	8.08%	1.48%	16.01%	22.76%	5.75%	3.90%	6.04%	19.28%	30.94%	3.09%
Commodities nes	0.08%	0.09%	0.41%	0.19%	0.04%	0.98%	0.90%	0.98%	3.45%	0.06%
Crude mater.ex food/fuel	7.64%	2.97%	6.54%	35.58%	2.03%	6.75%	2.81%	3.84%	21.99%	1.78%
Food & live animals	22.59%	5.64%	11.05%	4.96%	3.32%	22.43%	5.45%	8.96%	5.10%	2.87%
Machinery/transp equipmt	9.19%	2.49%	23.32%	18.88%	9.34%	17.63%	3.33%	23.81%	11.27%	24.53%
Manufactured goods	5.03%	14.13%	27.66%	4.91%	5.21%	4.22%	17.33%	25.49%	12.94%	7.46%
Mineral fuel/lubricants	0.68%	65.29%	1.06%	1.48%	9.75%	2.32%	55.95%	5.86%	0.00%	10.00%
Miscellaneous manuf arts	45.52%	7.79%	13.85%	10.29%	61.27%	40.31%	8.10%	11.67%	12.35%	43.90%
	IMPORTS									
	1996					2006				
	MAR	EGY	ISR	JOR	TUN	MAR	EGY	ISR	JOR	TUN
Animal/veg oil/fat/wax	1.18%	0.45%	0.23%	0.78%	1.23%	0.17%	0.14%	0.17%	0.10%	0.27%
Beverages and tobacco	0.68%	0.69%	0.50%	0.93%	0.23%	0.45%	1.03%	0.73%	1.74%	0.35%
Chemicals/products n.e.s	10.89%	13.81%	11.22%	15.36%	8.38%	10.16%	16.73%	15.76%	12.63%	9.25%
Commodities nes	0.45%	1.25%	1.11%	1.15%	0.69%	1.58%	4.56%	1.93%	1.88%	1.12%
Crude mater.ex food/fuel	3.90%	4.68%	1.32%	1.86%	3.03%	3.90%	7.33%	1.90%	1.33%	2.22%
Food & live animals	5.56%	9.35%	3.72%	9.75%	2.91%	4.47%	5.45%	4.02%	7.10%	2.91%
Machinery/transp equipmt	33.00%	47.07%	32.42%	44.86%	31.31%	36.29%	41.87%	33.27%	54.43%	33.47%
Manufactured goods	31.92%	14.60%	38.84%	17.39%	34.18%	24.29%	13.41%	30.58%	8.77%	27.55%
Mineral fuel/lubricants	2.79%	1.44%	0.62%	0.40%	3.75%	9.94%	2.98%	2.65%	0.26%	10.80%
Miscellaneous manuf arts	9.63%	6.64%	10.03%	7.51%	14.29%	8.75%	6.48%	8.99%	11.76%	12.04%

Source: Own calculations, Comtrade (mirror flows)

To the extent that the welfare effects of a preferential agreement are likely to be concentrated in the sectors where large shares of trade coincide with high tariffs, we compare the results obtained in Table 11 and Table 12 with those in Table 5 from section 2. Consider the tariff structure reported for Tunisia which appeared as the most protected economy across the MED5 countries. Tariff barriers to trade were highest in primary products but they also remained relatively high for manufacturing industries. In this instance, the low shares of imports in primary product sectors imply that even though the magnitude of the welfare effects could be high, the incidence of trade creation or trade diversion in this sector should be low. In terms of manufactures, these sectors have high tariffs and show strong concentration of trade which implies that the adverse effects, arising from a preferential agreement, are likely to be concentrated in the 'Miscellaneous Manufactures' and the 'Manufactured Goods' sectors. Similarly for Israel, low tariffs indicate that welfare effects, be these positive or negative, will be very low and will be concentrated in the 'Miscellaneous Manufactures' sector. For other MED5 countries welfare effects could arise in 'Machinery Equipment' for Jordan, Egypt and Morocco and to a lesser extent on 'Manufactured goods'.

The scope for trade diversion can also be examined by looking at the similarity in composition of imports from preferential partners to those of non-preferential partners. If a country is importing similar products from non-preferential partners as those from a proposed preferential partner then there is a possibility of causing trade diversion as you may be giving the preferential partner a discriminatory 'edge' over non-preferential partners. If costs structures vary across these and the preferential partner is not the least cost producer, then trade diversion is more likely to result. The magnitude of this effect will invariably depend on the size of the remaining tariff on non-preferential patterns which as we have seen in previous sections tends to be high for most MED5 countries (except Israel). To look at this proposition we consider degrees of similarity by way of

the Finger-Kreinin indicator[10]. This index essentially captures the minimum share of trade, by tariff line, and then gives us an aggregate measure of the similarity of composition of trade between two partners. The FK ranges from zero to one, where an FK of zero implies that there is no overlap whatsoever in the shares of trade between two countries. Similarly, if the indicator is 1, then the two countries under investigation have identical shares of trade. As a point of reference, the FK index of export similarity between EU and US exports to the world stands at 0.61, which implies that 61% of their exports overlap[11]. This is considered high. At the other end of the spectrum, the FK index of export similarity between what the EU and the Central African region export to the world is 0.08 which is considered as being quite low. Table 13 uses the FK indicator to consider various facets of trade diversion according to N-S and S-S agreements.

We firstly look at the degree of similarity across MED country imports from the EU and imports from the rest of the world (RoW). Here the RoW category subtracts imports from other MED partners and the EU from total imports. This allows us to look at possible trade diversion arising from the N-S agreement (row (1) in the table). Secondly, we also look at MED partner imports from the MED region and compare this to MED partner imports from the RoW (where the RoW grouping also excludes the EU and MED partners). This then allows us to look at trade diversion that might be caused from S-S preferential liberalisation (row (2) in the table). Thirdly, we look at trade re-orientation which occurs when a new preferential partner matches the preferences that were previously granted to another preferential partner. For instance Israel has a pre-established agreement with the USA. Extending preferences to the EU is likely to re-orient imports patterns from the US to the EU, the potential for which can be investigated by looking at the degree of similarity in imports from each source (row (3) in the table).

Table 13 firstly suggests that there is some potential for trade diversion arising from the N-S agreement which would primarily occur in Lebanon, Israel, Egypt, Mauritania and Algeria. With regards to trade diversion as a result of a S-S agreement, structures in 2006 suggest that individual MED countries import different bundles of products from the region than from non-preferential partners which in turn suggest that there is little scope that a S-S agreement will be trade diverting. For Israel and Jordan which have agreements with the US, there appear to be some similarities in what these countries import from the EU and from the US but these are however small and hence should lead to small trade-reorientation effects. In the case of Morocco, the EU AA preceded that with the US hence any trade re-orientation should remove previous trade diversion caused by the AA. Our measure of similarity suggests that this effect should be very small as Morocco imports very different goods from the US than from the EU.

[10] The F-K index of export similarity between country *m* and *n* can be defined, in general, as $FK_{mn} = \sum_i \min(\delta_{im}, \delta_{in})$. Where δ_{im} and δ_{in} are the share of exports from country *m* in product *i* and the share of exports from country *n* in product *i*, respectively.

[11] This value is calculated at the HS 6-digit level.

Table 13: FK indicators of similarity (2006)

	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
(1) Potential Trade Diversion (N-S)	0.291	0.349	**0.391**	**0.413**	**0.446**	0.252	**0.519**	0.299	**0.395**	0.174	0.349	0.309	**0.411**
(2) Potential Trade Diversion (S-S)	0.127	0.209	0.259	0.275	0.192	0.171	0.253	0.174	0.125	0.087	0.299	0.244	0.158
(3) Potential trade re-orientation	0.140				0.310	0.334							

Source: Own calculations, Comtrade (HS 6-digits)

5 DISAGGREGATED ANALYSIS OF EXPORTS

In this section we look at exports at higher levels of disaggregation, firstly to identify top exports in the region and their degrees of comparative advantage and secondly to determine the degrees of similarity in export structures across the MED region which should allow us to grasp the scope for trade creation.

5.1 ANALYSIS OF TOP EXPORTS

In this section we dig a little deeper into export patterns in order to provide a better understanding of the main export products in the region and how these have evolved over time. We do so by considering trade at a more disaggregated level. Table 14 looks at the top 15 exported products of the MED region (discounting petroleum product (i.e. chapter HS 27)) to the world in 1996 and then investigates how these same 15 sectors are performing in 2006. Here we also calculate indicators of revealed comparative advantage (RCA) and see how these have evolved. We do this to determine if there is any evidence of diversification in exporting structures in time during the last decade of liberalisation. The importance of the textile and clothing sector becomes directly evident from this table where it occupies 6 of the top 15 sectors identified. Further to this, non-industrial diamonds appears as the top export sector in both 1996 and 2006 where this is driven by important Israeli exports in this category. The remaining sectors are predominantly in primary goods categories. Overall the share of the top 15 sectors dropped from a little less than 30% of total exports to the world in 1996 to 20% in 2006. This shows some prima facie evidence of diversification in MED exporting structures during the last decade. Table 14 further shows how top exports follow strong comparative advantages both in 1996 and, to a lesser degree, in 2006.

Table 14:Top 15 MED Export Sectors to the world 1996 and 2006

HS 6 digit code	Description	1996 xWLD (%)	1996 xEU (%)	2006 xWLD (%)	2006 xEU (%)	1996 RCA	2006 RCA	Change X Wld 1996-2006	Change X EU 1996-2006	Change RCA 1996-2006
710239	Non-industrial :-- Other (diamonds)	9.57	2.43	6.97	1.06	20.10	15.43	-2.60%	-1.37%	-4.67
620342	Trousers, bib and brace overalls, b	2.35	3.44	1.40	2.15	8.73	7.60	-0.95%	-1.29%	-1.13
611020	Of cotton (Jerseys, Pullovers…)	1.95	2.34	0.90	1.13	9.35	4.33	-1.05%	-1.21%	-5.02
280920	Phosphoric acid and polyphosphoric	1.82	1.06	0.77	0.34	47.53	28.62	-1.05%	-0.72%	-18.91
610910	Of cotton (T-shirts)	1.75	2.38	1.97	3.39	8.77	9.37	0.22%	1.00%	0.60
710231	Non-industrial :-- Unworked (diamonds)	1.42	1.49	1.49	1.19	2.88	4.69	0.08%	-0.29%	1.81
620462	Trousers, bib and brace overalls, b	1.18	1.56	1.51	2.17	7.70	7.70	0.33%	0.60%	0.01
711319	Of precious metal whether or not pl	1.11	0.29	0.84	0.39	4.28	3.23	-0.26%	0.10%	-1.05
030759	Octopus (Octopus spp.) :-- Other	1.10	0.32	0.28	0.33	45.64	24.45	-0.82%	0.02%	-21.18
240110	Tobacco, not stemmed/stripped	0.98	0.46	0.31	0.26	27.12	19.50	-0.67%	-0.20%	-7.62
251010	Unground (calcium phosphate)	0.97	0.85	0.51	0.29	50.65	47.93	-0.46%	-0.56%	-2.72
080222	Hazelnuts or filberts (Corylus spp.	0.95	1.29	0.51	0.72	64.38	43.09	-0.44%	-0.56%	-21.29
620520	Of cotton (Shirts)	0.93	1.27	0.46	0.69	5.36	5.04	-0.47%	-0.58%	-0.32
520100	Cotton, not carded or combed.	0.79	0.76	0.29	0.14	4.12	2.41	-0.50%	-0.61%	-1.72
851790	Parts (telephony)	0.71	0.46	0.43	0.29	2.02	1.28	-0.29%	-0.17%	-0.74
	Total	27.58	20.42	18.65	14.56					
	Average					20.58	14.98	-0.60%	-0.39%	-5.60

Source: Own calculations, Comtrade (mirror flows). Chapter 27 removed

Where Table 14 looked at top 15 exports to the world in 1996, and looked at how these performed in 2006, Table 15 shows the top 15 exports in 2006 and then looks at how these were performing in 1996. Comparing Table 14 and Table 15 there is a discernable change in exporting structures with a move towards more industrial activities, mainly in the motor vehicle industry where in 2006, we see 3 motor vehicle sectors (HS-87) in the top 15. It is important to note that these sectors represented a very small share of total exports in 1996 and thus are purely nascent sectors in which the MED area has developed important comparative advantages[12]. Of particular relevance is sector 870421 (which is that of motor vehicles for transport of goods, not exceeding 5 tonnes). This sector showed a strong revealed comparative disadvantage in 1996 which has been turned to a strong revealed comparative advantage in 2006. Further analysis reveals that this effect is pertinent only to Turkey who has developed a strong Motor Vehicle sector during the last decade. The T-shirt sector has also positively evolved in terms of shares and comparative advantages since 1996. Overall, MED export patterns seem to have changed towards higher value adding activities where in Table 14 top exports were concentrated in the T&C, and primary products categories, in 2006, there seems to be more industrial activity in the motor vehicles sector, pharmaceuticals, and electronic apparatus.

[12] Subsequent MED5 analysis should reveal the origin of this nascent industry

Table 15:Top 15 MED Export Sectors to the World 2006 and 1996

HS 6 digit code	Description	2006 xWLD (%)	2006 xEU (%)	1996 xWLD (%)	1996 xEU (%)	2006 RCA	1996 RCA	Change X Wld 2006-1996	Change X EU 2006-1996	Change RCA 2006-1996
710239	Non-industrial :-- Other (diamonds)	6.97	1.06	9.57	2.43	15.43	20.10	-2.60%	-1.37%	-4.67
610910	Of cotton (T-shirts)	1.97	3.39	1.75	2.38	9.37	8.77	0.22%	1.00%	0.60
852812	Reception apparatus for television,	1.75	2.96	0.47	0.70	2.91	1.19	1.27%	2.26%	1.72
300490	Other (medicaments)	1.71	0.47	0.35	0.06	0.92	0.53	1.36%	0.42%	0.39
620462	Trousers, bib and brace overalls, b	1.51	2.17	1.18	1.56	7.70	7.70	0.33%	0.60%	0.01
710231	Non-industrial :-- Unworked (diamonds)	1.49	1.19	1.42	1.49	4.69	2.88	0.08%	-0.29%	1.81
620342	Trousers, bib and brace overalls, b	1.40	2.15	2.35	3.44	7.60	8.73	-0.95%	-1.29%	-1.13
870323	Other vehicles, with spark-ignition	1.29	1.69	0.13	0.19	0.66	0.05	1.16%	1.51%	0.61
870421	Other, with compression-ignition in	1.21	1.96	0.00	0.00	3.30	0.01	1.21%	1.96%	3.29
721420	Containing indentations, ribs, groo	1.09	0.86	0.53	0.03	12.28	10.50	0.55%	0.82%	1.77
870332	Other vehicles, with compression-ig	1.01	1.76	0.22	0.34	1.02	0.31	0.79%	1.43%	0.72
611020	Of cotton (Jerseys, Pullovers…)	0.90	1.13	1.95	2.34	4.33	9.35	-1.05%	-1.21%	-5.02
711319	Of precious metal whether or not pl	0.84	0.39	1.11	0.29	3.23	4.28	-0.26%	0.10%	-1.05
280920	Phosphoric acid and polyphosphoric	0.77	0.34	1.82	1.06	28.62	47.53	-1.05%	-0.72%	-18.91
854430	Ignition wiring sets and other wiri	0.77	1.42	0.69	1.07	3.87	3.04	0.08%	0.35%	0.83
	Total	24.69	22.94	22.96	23.55					
	Average					7.06	8.33	0.08%	0.37%	-1.27

Source: Own calculations, Comtrade (mirror flows), Chapter 27 removed

Table 16 then looks at how top exports to the EU have evolved in time. Here we use the same exposition as above but we rank the products according to a decreasing share of exports to the EU. This exercise allows us to compare products across destinations (by comparing with Table 14 and Table 15), to determine whether there is any evidence of differences across top exports according to destination. From Table 16 we see how exports to the EU are mainly occupied by T&C products much like in Table 14, with other primary material taking important shares as well. There is also evidence of diversification of export structures from 1996 to 2006, where the MED region appears to have adapted to changing conditions. Most top 15 export products in 1996 have shown decreasing shares and comparative advantages in 2006 with notable exceptions in 'T-shirts', 'unworked diamonds', and 'trousers'. These sectors have shown increases in comparative advantages and corresponding increases in export shares.

Table 16: Top 15 MED Export Sectors to the EU 1996 and 2006

HS 6 digit code	Description	1996 xEU (%)	1996 xWLD (%)	2006 xEU (%)	2006 xWLD (%)	1996 RCA	2006 RCA	Change X EU 1996-2006	Change X WLD 1996-2006	Change RCA 1996-2006
620342	Trousers, bib and brace overalls, b	3.44	2.35	2.15	1.40	8.73	7.60	-1.29%	-0.95%	-1.13
710239	Non-industrial :-- Other (diamonds)	2.43	9.57	1.06	6.97	20.10	15.43	-1.37%	-2.60%	-4.67
610910	Of cotton (T-shirts)	2.38	1.75	3.39	1.97	8.77	9.37	1.00%	0.22%	0.60
611020	Of cotton (Jerseys, Pullovers…)	2.34	1.95	1.13	0.90	9.35	4.33	-1.21%	-1.05%	-5.02
620462	Trousers, bib and brace overalls, b	1.56	1.18	2.17	1.51	7.70	7.70	0.60%	0.33%	0.01
710231	Non-industrial :-- Unworked (diamonds)	1.49	1.42	1.19	1.49	2.88	4.69	-0.29%	0.08%	1.81
080222	Hazelnuts or filberts (Corylus spp.	1.29	0.95	0.72	0.51	64.38	43.09	-0.56%	-0.44%	-21.29
620520	Of cotton (Shirts)	1.27	0.93	0.69	0.46	5.36	5.04	-0.58%	-0.47%	-0.32
854430	Ignition wiring sets and other wiri	1.07	0.69	1.42	0.77	3.04	3.87	0.35%	0.08%	0.83
620640	Of man-made fibres (blouses)	1.07	0.71	0.30	0.17	8.14	5.78	-0.77%	-0.54%	-2.36
280920	Phosphoric acid and polyphosphoric	1.06	1.82	0.34	0.77	47.53	28.62	-0.72%	-1.05%	-18.91
080510	Oranges	1.03	0.71	0.23	0.33	13.13	9.82	-0.81%	-0.38%	-3.31
611030	Of man-made fibres (Jerseys, Pullovers…)	0.93	0.63	0.62	0.48	3.19	3.28	-0.31%	-0.15%	0.08
420310	Articles of apparel (leather)	0.86	0.58	0.25	0.17	6.42	4.52	-0.62%	-0.41%	-1.90
251010	Unground (calcium phosphate)	0.85	0.97	0.29	0.51	50.65	47.93	-0.56%	-0.46%	-2.72
	Total	26.23	23.10	18.42	15.95					
	Average					17.29	13.40	-0.48%	-0.52%	-3.89

Source: Own calculations, Comtrade (mirror flows), Chapter 27 removed

We also consider how the top 15 exports in 2006 were behaving in 1996. Table 17 maps this evolution. Here we see similarities with Table 15 where the MED area is specialising in more value adding exports. Of particular interest is the rise in the automotive sector with 5 sectors in the top 15 exports to the EU in 2006, and also how these sectors have developed strong comparative advantages. Where Table 15 appeared to show more diversification in total top 15 exports in 2006, Table 17 can easily group MED exports to the EU in two main categories, exports of motor vehicles and exports of T&C. Differences across Table 15 and Table 17 could imply either differences in demand (preferences), or possibly differences in market access to the EU.

Table 17:Top 15 MED Export Sectors to the EU 2006 and 1996

HS 6 digit code	Description	2006 xEU (%)	2006 xWLD (%)	1996 xEU (%)	1996 xWLD (%)	2006 RCA	1996 RCA	Change X EU 2006-1996	Change X Wld 2006-1996	Change RCA 2006-1996
610910	Of cotton (T-shirts)	3.39	1.97	2.38	1.75	9.37	8.77	1.00%	0.22%	0.60
852812	Reception apparatus for television,	2.96	1.75	0.70	0.47	2.91	1.19	2.26%	1.27%	1.72
620462	Trousers, bib and brace overalls, b	2.17	1.51	1.56	1.18	7.70	7.70	0.60%	0.33%	0.01
620342	Trousers, bib and brace overalls, b	2.15	1.40	3.44	2.35	7.60	8.73	-1.29%	-0.95%	-1.13
870421	Other, with compression-ignition in	1.96	1.21	0.00	0.00	3.30	0.01	1.96%	1.21%	3.29
870332	Other vehicles, with compression-ig	1.76	1.01	0.34	0.22	1.02	0.31	1.43%	0.79%	0.72
870323	Other vehicles, with spark-ignition	1.69	1.29	0.19	0.13	0.66	0.05	1.51%	1.16%	0.61
854430	Ignition wiring sets and other wiri	1.42	0.77	1.07	0.69	3.87	3.04	0.35%	0.08%	0.83
710231	Non-industrial :-- Unworked (diamonds)	1.19	1.49	1.49	1.42	4.69	2.88	-0.29%	0.08%	1.81
611020	Of cotton (Jerseys, Pullovers…)	1.13	0.90	2.34	1.95	4.33	9.35	-1.21%	-1.05%	-5.02
870331	Other vehicles, with compression-ig	1.07	0.69	0.00	0.00	4.18	0.00	1.07%	0.69%	4.18
710239	Non-industrial :-- Other (diamonds)	1.06	6.97	2.43	9.57	15.43	20.10	-1.37%	-2.60%	-4.67
840999	Other (parts engines)	0.94	0.56	0.20	0.14	2.51	0.75	0.74%	0.42%	1.76
870899	Other parts and accessories :-- Oth	0.92	0.61	0.36	0.29	0.63	0.28	0.56%	0.32%	0.36
150910	Virgin (Olive oil)	0.89	0.55	0.64	0.45	11.47	8.06	0.25%	0.10%	3.41
	Total	24.71	22.68	17.15	20.61					
	Average					5.31	4.75	0.50%	0.14%	0.56

Source: Own calculations, Comtrade (mirror flows)
Chapter 27 removed

It is important to note that this MED region analysis may be driven by the big partners in the region where Turkey and Israel may dominate the effects and over-shadow the other MED countries evolution of trade both to the EU or to the world. To compensate for this generalisation, we now look at specific sectors which have been present in the above analysis and look at how they have been performing in the individual MED countries.

5.1.1 TEXTILE AND CLOTHING

The textile and clothing sector is one which occupies much of MED trade. The analysis in section 4 aggregated this sector into different manufacturing categories whilst in the previous section it appeared as an important export sector for the MED region as a whole. In this section, we look at T&C exports across individual MED partners. Table 18 shows the evolution of the importance of total T&C exports by MED country firstly with respect to the world and secondly with respect to the EU. The first panel shows total exports of T&C by value and also the share of these in total world trade. In the second panel, we look at the value of T&C exports to the EU and the shares of these in total exports to the world. It is important to bear in mind that the T&C

sector represents 6.7% of total world exports in 1996 and 4.5% of total world exports in 2006 and that this decline in importance is not due to falling levels of trade but rather to increasing levels of world exports in other sectors. As can be seen in Table 18, this holds true for the countries in the MED region where the fall in the share of T&C exports in time is also due to increases in exports of other sectors. The top panel in Table 18 shows the importance of T&C exports as a share of total trade. For Morocco, T&C exports occupied, in 2006, over a third of total exports and this sector currently occupies a fourth of total exports. Notable also is Tunisia, which has gone from having half its total exports represented by this sector to a third. Most surprising is the important rise in Jordan's exports of T&C as a share of total trade. This sector occupied 4% in 1996 it now has a share of over 35% of total exports. Countries like Algeria and Libya have very low shares in T&C given that most of the economy is engaged in exports of mineral fuels. The bottom panel of Table 18 shows us the share of T&C exports to the EU in total exports and highlights not only the importance of the T&C sector in total exports, but also the importance of the EU market as a destination for these exports. Entries for Morocco, Albania, Tunisia and Turkey show the great links in this sector to the EU. In the case of Jordan, we see how in the top panel there was an important rise in the share of the T&C sector in exports to the world but the bottom panel shows that this is not towards the EU.

Table 18: Value and Share of T&C exports to the world and to the EU 1996-2006 ($000)

	World											
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	SYR	TUN	TUR
	2477757	77459.91	5416.624	1110918	1175498	37937.46	53599.53	2493.536	2865.43	364284	2787584	8103334
1996	**33.7%**	**24.9%**	**0.0%**	**18.0%**	**6.1%**	**4.0%**	**8.0%**	**0.0%**	**0.4%**	**10.1%**	**51.1%**	**40.1%**
	2579440	96558.33	1460.659	1458420	1412948	85742.19	38568.57	1332.188	3229.302	583831.2	2838301	10372260
2000	**33.7%**	**24.9%**	**0.0%**	**18.0%**	**6.1%**	**4.0%**	**8.0%**	**0.0%**	**0.4%**	**10.1%**	**51.1%**	**40.1%**
	3768362	174462.7	5132.364	2242458	1355074	1377351	62443.61	2445.878	3389.111	589561.7	3941056	20714882
2006	**26.7%**	**23.0%**	**0.0%**	**10.8%**	**3.0%**	**35.7%**	**3.3%**	**0.0%**	**0.2%**	**9.3%**	**33.2%**	**25.9%**
	EU											
	2375780	75217.11	3237.227	580868.4	624303.3	15987.69	26085.91	1314.78	1368.093	211163.6	2752223	6538851
1996	**43.2%**	**29.3%**	**0.0%**	**15.5%**	**8.8%**	**8.1%**	**16.3%**	**0.0%**	**0.4%**	**7.9%**	**57.3%**	**50.7%**
	2428171	95082.25	478.469	661709.3	506382.5	20250.96	17502.32	210.384	1941.365	280564.3	2761902	7684144
2000	**32.1%**	**33.1%**	**0.0%**	**24.5%**	**4.6%**	**6.8%**	**4.3%**	**0.0%**	**0.6%**	**11.5%**	**47.4%**	**39.6%**
	3435612	171269.7	1340.395	980793	462950.1	13297.44	17560.53	243.166	2565.068	202582	3712700	15600690
2006	**26.7%**	**23.0%**	**0.0%**	**10.8%**	**3.0%**	**35.7%**	**3.3%**	**0.0%**	**0.2%**	**9.3%**	**33.2%**	**25.9%**

Source: Own calculations, Comtrade (mirror flows)

We also consider how the T&C sectors have evolved in time. Here we differentiate the sector into three separate categories. The first is the 'Textile Fibres' sector (SITC sector 26) the second is the 'Textile yarn, fabrics, and made-up articles' (SITC sector 65) whilst the third is the higher value adding 'Articles of apparel and clothing accessories' (SITC sector 84). Table 19 shows the share of MED country exports to the EU in these categories over total exports in T&C. Here we are looking at changes in the composition of T&C exports towards the EU to discern if there is any evidence of quality upgrading. The first entry shows, for Morocco, that sector 26 (textile fibres) occupies 0.06% of total T&C exports in 1996 where sector 65 (Textile yarn) occupies 4.27% and the large majority of exports are in the higher value adding sector 84 (Apparel and Clothing). Overall, Table 19 illustrates how many of the MED countries were already

specialised in the 'Apparel and Clothing' sector in 1996 and continue to do so in 2006. This is predominantly for Morocco, Albania, Jordan, Lebanon, Mauritania, Tunisia and Turkey. Table 19 also shows some signs of quality upgrading for Egypt and Libya who appear to be moving to the higher value adding sectors in time.

Table 19: Shares of T&C sectors in total T&C exports to the EU 1996-2006

	1996			2000			2006		
	26	65	84	26	65	84	26	65	84
MAR	0.06%	4.27%	95.68%	0.06%	3.77%	96.17%	0.12%	3.92%	95.96%
ALB	0.14%	3.78%	96.07%	0.26%	1.81%	97.93%	0.12%	1.50%	98.37%
DZA	2.27%	72.94%	24.79%	13.78%	64.17%	22.05%	11.90%	59.26%	28.84%
EGY	7.62%	55.27%	37.11%	12.54%	46.34%	41.12%	5.08%	40.02%	54.90%
ISR	6.60%	39.96%	53.45%	5.94%	43.94%	50.12%	4.82%	64.62%	30.55%
JOR	0.46%	14.29%	85.24%	0.92%	11.36%	87.71%	5.01%	8.18%	86.81%
LBN	3.42%	13.67%	82.91%	1.57%	26.80%	71.64%	4.52%	12.75%	82.73%
LBY	54.95%	41.57%	3.48%	16.21%	7.89%	75.90%	58.49%	29.77%	11.74%
MRT	0.00%	5.34%	94.66%	0.00%	5.05%	94.95%	0.45%	5.89%	93.66%
SYR	53.49%	3.10%	43.41%	34.16%	28.76%	37.08%	18.15%	34.63%	47.22%
TUN	0.30%	5.04%	94.66%	0.31%	5.36%	94.33%	0.15%	8.43%	91.42%
TUR	2.61%	22.77%	74.63%	1.69%	26.50%	71.81%	1.49%	25.74%	72.77%
World	6.80%	39.97%	53.23%	5.53%	38.39%	56.09%	3.46%	32.61%	63.93%

Source: Own calculations, Comtrade (mirror flows)

Further investigation into these sectors shows that MED countries have high comparative advantages in the sectors in which they specialise (see table A.3. in annex) and by extension have very high market access in the EU. This does not hold for Jordan in 2006 which has a low market access in the EU in 2006.

5.1.2 AGRICULTURE

The agricultural sector is also of interest not only for its export performance but also for its relevance to the rural population of MED countries and for the modest liberalisation treatment that the sector has received under the AAs. According to Oxfam[13] the sector occupies around 40% of the region's population whilst occupying a much more modest share of total exports (as seen in Table 21). Table 20 looks at the share of agriculture in total exports by MED country in 2006. Given the predominance of petroleum products in some countries we look at the share in terms of total and total non-oil exports. In terms of total exports Syria, Lebanon and Morocco are the most agriculturally oriented whilst Libya, Mauritania and Algeria are the least. Where in terms of non-oil exports Syria is to be added to the above list where this sector occupies near 50% of non oil exports. As a point of comparison, Table 20 also shows the importance of agriculture in world and EU exports. A country reveals its comparative advantage when its share of total exports to the world is higher than the equivalent world share in total world exports.

[13] Oxfam (2004), "Euro-Med: Seeds of a Raw Deal".
http://www.oxfam.org.uk/resources/policy/trade/downloads/bn_EuroMed.pdf

From the table we see that this occurs for Morocco, Albania, Egypt, Lebanon, Syria, Tunisia and Turkey implying that these countries have a comparative advantage in agricultural produce.

Table 20: Share of Agriculture in exports in 2006 (%)

	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	SYR	TUN	TUR	WLD	EU
Agriculture in total	**13.5**	**7.0**	0.1	**9.7**	4.8	4.3	**14.2**	0.0	0.1	**15.8**	**8.1**	**8.3**	6.1	7.6
Agriculture in non oil total	13.9	7.4	0.4	12.8	4.9	4.3	14.2	0.6	0.2	49.7	9.2	8.6	6.9	7.9

Source: Own calculations, Comtrade (mirror flows)

Table 21 then looks at MED exports in agriculture in 1996 and 2006. Here we see how the importance of agriculture exports has declined during the last decade to occupy 8% of total non-oil exports in 2006 from a share of 12% in 1996. This decline in share is due to increased importance of manufactures in MED exports to the world which have increased at a faster pace than agricultural exports. The lower panel of the table disaggregates into agricultural sectors and exposes the share that these occupy in total agricultural exports and the RCAs. Here we see how MED region exports appear to be concentrated in 'vegetables and fruit' and in 'fish/shellfish' categories. As a simple exercise we can compare shares across destinations to determine if there are any prima facie market access impediments in the EU. We do this by subtracting the share of exports to RoW from that to the EU. Where this difference is biggest and positive we can say that market access in the EU is good. Conversely, where we find a large negative value we suggest that there may be evidence of market access barriers in the EU[14]. In the latter case the difference between the EU and RoW shares is largest and negative for 'cereals/cereal preparations' suggesting that there may be some market access impediments in the EU for MED exports of these products. However, given the RCA it may be the case that the EU has different more efficient source for these commodities. Similarly the 'live animals except fish' sector also shows a relatively large negative value suggesting possible market access issues in the EU for MED produce. In this sector we further see that the MED region has a revealed comparative advantage in this sector suggesting that it is an efficient producer of these commodities and hence that the lack of market access in the EU as compared to the RoW may be due to the existence of barriers to trade. In terms of produce which sees good market access in the EU according to our back of the envelope calculation we see that the difference in shares is positive and high for 'vegetables and fruits' suggesting that market access in the EU for these products is good.

[14] Differences in market shares cannot be solely attributed to differences in market access as they will depend on levels of protection in the different destinations and on differences in consumer preferences (demand) across destinations. It is nonetheless a good broad indicator on where to start looking for possible market access issues.

Table 21: MED agricultural exports by destination 1996 and 2006

	MED exports Wld		MED exports EU		MED exports RoW		RCA	
	1996	2006	1996	2006	1996	2006	1996	2006
Agriculture share in non oil exports	12.62%	8.26%	12.91%	8.89%	12.23%	7.60%		
Agriculture share in total exports	8.50%	5.06%	8.00%	5.14%	9.31%	4.97%		
Live animals except fish	2.22%	2.64%	0.20%	0.17%	5.04%	5.66%	1.03	1.16
Meat & preparations	1.09%	0.51%	1.23%	0.58%	0.90%	0.43%	0.11	0.04
Dairy products & eggs	0.63%	1.71%	0.19%	0.15%	1.25%	3.62%	0.09	0.22
Fish/shellfish/etc.	19.57%	15.74%	15.43%	18.87%	25.38%	11.90%	1.62	1.12
Cereals/cereal preparations	4.34%	7.46%	1.09%	2.49%	8.90%	13.54%	0.31	0.56
Vegetables and fruit	63.52%	60.62%	76.41%	70.17%	45.43%	48.93%	3.61	2.74
Sugar/sugar prep/honey	2.03%	2.70%	1.47%	2.40%	2.81%	3.08%	0.46	0.56
Coffee/tea/cocoa/spices	3.02%	3.24%	1.68%	1.48%	4.89%	5.39%	0.42	0.40
Animal feed ex unml cer.	0.69%	1.01%	0.80%	0.57%	0.54%	1.54%	0.12	0.17
Misc food products	2.90%	4.38%	1.50%	3.12%	4.86%	5.91%	0.71	0.68

Source: Own calculations, Comtrade (mirror flows)

Note: Agriculture is defined in the above panel following the WTO identification. The panel below uses SITC as identification

Further to considering the broad composition of agricultural exports, in Table 22 we rank agriculture exports of MED countries according to the difference between the export share to the EU and that to the RoW at a much higher degree of disaggregation. As explained in the preceding paragraph, we believe that the difference between these shares could capture prima facie evidence of market access impediments in the EU[15]. If a product ranks very highly in terms of its export share to the RoW but does not do so in terms of its share of exports to the EU then there is a possibility of there being some form of market access issue lurking which requires further investigation. To further reinforce the analysis, we also use other market access indicators (as explained in the annex A.8). Table 22 then tells us that the product where the difference in export shares to the EU and to the RoW is greatest is in exports of sheep. The MED region shows a strong global comparative advantage in this sector (13.33), but fails to export at all to the EU market. In terms of rice, which appears as the second product where the difference in export shares is largest; we see that the MED region has a global comparative advantage in this sector. However the RMA indicators suggest that the region is exporting less to the EU than what could be predicted by comparative advantage (RMA1) or the economic mass of the EU (RMA2). Table 22 also identifies citrus fruit exports such as oranges, mandarins and lemons as having indicators which may suggest market access concerns. This contrasts with the finding of the previous table where fruit and vegetables appeared to have a relatively good market access to the EU. It suggests that the main issue is in citrus fruits but that other vegetables and fruits may continue to enjoy a good access to the EU market. Another important apparition in Table 22 is that of fish produce where evidence suggests that market access in the EU is lower than it could be.

[15]The same interpretation applies as in the previous footnote.

Table 22 : MED agricultural exports ranked by difference in shares across destinations (2007)

Row	Product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
010410	Sheep	0.11%	0.00%	0.25%	-0.25%	13.33	0.00	0.00	0.00
100630	Semi-milled or wholly milled rice,	0.08%	0.00%	0.17%	-0.17%	1.44	0.03	0.02	0.01
080510	Oranges	0.20%	0.13%	0.29%	-0.16%	6.94	3.17	0.46	1.29
080520	Mandarins (including tangerines)	0.16%	0.10%	0.24%	-0.15%	7.10	2.57	0.36	1.12
030374	Other fish, excluding livers and ro	0.05%	0.00%	0.11%	-0.11%	4.57	0.20	0.04	0.02
040630	Processed cheese, not grated or pow	0.04%	0.00%	0.08%	-0.08%	2.52	0.00	0.00	0.00
240110	Tobacco, not stemmed/stripped	0.19%	0.15%	0.23%	-0.08%	13.78	9.86	0.72	1.86
030420	Frozen fillets (fish)	0.04%	0.01%	0.09%	-0.08%	0.50	0.08	0.15	0.29
030371	Other fish, excluding livers and ro	0.03%	0.00%	0.07%	-0.07%	12.89	3.62	0.28	0.17
190530	Sweet biscuits; waffles and wafers	0.05%	0.02%	0.08%	-0.06%	0.94	0.28	0.30	0.77
080530	Lemons (Citrus limon, Citrus limonu	0.05%	0.03%	0.08%	-0.06%	4.50	1.65	0.37	0.92
100300	Barley.	0.02%	0.00%	0.05%	-0.05%	0.68	0.00	0.00	0.00
200290	Other (tomatoes, prepared)	0.03%	0.01%	0.06%	-0.05%	2.31	0.39	0.17	0.28
030379	Other (frozen fish)	0.03%	0.01%	0.06%	-0.04%	0.85	0.63	0.75	0.64
010420	Goats	0.02%	0.00%	0.04%	-0.04%	14.30	0.00	0.00	0.00
	TOTAL	1.10%	0.46%	1.90%					
	Average				-0.10%	5.777	1.499	0.241	0.491

Source: Own calculations, Comtrade

In terms of possible market access impediments in the EU market for MED5 country agricultural exports (Annex tables A.4) we see how for Morocco citrus fruits and fish show evidence of reduced market access. For Egypt it is rice and oranges whilst Israel may witness impediments in processed citrus fruit juices. For Jordan this is mainly in tomatoes, tobacco and vegetables whilst in Tunisia Dates and fish may be affected.

5.1.3 MOTOR VEHICLES

In previous sections we highlighted the Motor Vehicle sector as being one where the MED region had witnessed important specialisation. Our Top 15 analysis revealed some interesting results where we identified this sector as a nascent one showing revealed comparative disadvantages in 1996 which had been overturned to revealed comparative advantages in 2006. In this section we aim to analyse this sector at a more disaggregated level and look at the geographical origin of these exports. We start with Table 23 which looks at the share of Motor Vehicle exports, by MED country, in total trade (top panel). Here we see that this sector is relatively small both in 1996 and in 2006. Although it is one growing in importance, all countries besides the oil producing Algeria and Libya have seen their shares increase since 1996. Most significant is the increase for Turkey whose share in this sector has increased from 3.58% in 1996 to 14.71% in 2006. Analogous to Table 18, the bottom panel of Table 23 looks at the share of exports to the EU in this sector over total exports to the world. The similarity in the shares across panels suggests that the EU is by and large the largest destination market for Motor Vehicles. This can be said for all countries except for Jordan, who shows a large increase in export share to the world that is not matched with an increase in exports to the EU.

Table 23: Share of Motor Vehicle exports to the world and to the EU 1996-2006

	World											
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	SYR	TUN	TUR
1996	0.27%	0.38%	0.03%	0.17%	0.25%	0.35%	0.44%	0.03%	0.01%	0.04%	0.55%	3.58%
2000	0.28%	0.41%	0.01%	0.09%	0.19%	0.38%	0.53%	0.01%	0.01%	0.04%	1.12%	5.58%
2006	0.54%	0.40%	0.01%	0.56%	0.29%	1.14%	0.76%	0.00%	0.02%	0.30%	2.05%	14.71%
	EU											
1996	0.24%	0.35%	0.01%	0.02%	0.09%	0.07%	0.21%	0.00%	0.01%	0.01%	0.52%	2.29%
2000	0.25%	0.26%	0.01%	0.03%	0.08%	0.06%	0.17%	0.01%	0.00%	0.00%	1.09%	4.41%
2006	0.51%	0.35%	0.00%	0.16%	0.13%	0.02%	0.10%	0.00%	0.00%	0.07%	1.80%	11.55%

Source: Own calculations, Comtrade (mirror flows)

Table 24 then considers the distribution, across the different Motor Vehicle sectors identified, of exports to the EU. For Morocco, in 1996 we see that 'Motor Vehicle parts and accessories' occupied 90% of total motor vehicle exports to the EU where from the bottom panel we see that in 2006, Morocco seems to have specialised more in the manufacture of 'Road motor Vehicles nes' to the detriment of the parts and accessories sectors. The latter still occupies the most prominent share in total exports of the Motor vehicle category. Overall, there appear to be important changes in the composition of MV exports in 2006 when compared to 1996. Albania and Mauritania seem to have specialised in 'Passenger Car' exports whilst Egypt, Lebanon, Israel and Turkey have significantly increased their exports in 'Motor Vehicle Parts and Accessories'.

Table 24: Share of MV sectors in total MV exports to the EU 1996-2006 (%)

	1996											
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	SYR	TUN	TUR
Goods/service vehicles	2.6	70.4	43.4	0.0	3.4	39.8	0.0	27.2	0.0	0.0	2.6	0.4
Motor veh parts/access	90.9	15.4	8.0	17.5	57.9	17.6	23.9	36.4	0.0	4.5	86.5	40.0
Motorcycles/cycles/etc	1.0	0.5	0.1	12.8	26.3	2.1	8.0	0.2	62.6	2.8	8.6	2.4
Passenger cars etc	4.6	8.5	28.3	53.2	6.1	30.5	68.1	36.1	21.4	81.6	1.0	39.8
Road motor vehicles nes	0.0	4.5	19.1	2.0	0.0	2.4	0.0	0.0	0.0	0.0	0.1	16.2
Trailers/caravans/etc	0.9	0.7	1.2	14.5	6.2	7.7	0.0	0.0	16.0	11.0	1.3	1.1
	2006											
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	SYR	TUN	TUR
Goods/service vehicles	0.3	18.1	65.1	0.8	12.6	43.5	3.7	14.2	0.0	93.0	0.5	23.8
Motor veh parts/access	77.8	25.1	10.1	72.8	66.3	25.5	53.2	23.7	9.3	4.9	86.5	18.8
Motorcycles/cycles/etc	1.2	0.0	0.2	1.0	5.0	0.7	0.3	0.0	3.5	0.1	10.9	0.3
Passenger cars etc	1.9	48.1	14.3	4.4	2.5	30.2	38.7	34.8	87.1	1.9	0.4	48.4
Road motor vehicles nes	18.7	0.1	0.0	19.9	6.2	0.0	1.7	6.1	0.0	0.0	0.2	7.9
Trailers/caravans/etc	0.1	8.6	10.3	0.9	7.3	0.1	2.4	21.2	0.0	0.1	1.5	0.7

Source: Own calculations, Comtrade (mirror flows)

5.2 EXPORT SIMILARITY AND TRADE CREATION

Economic theory suggests that countries can either trade on an intra-industry or an inter-industry basis. The latter tends to occur when countries are dissimilar in the goods they produce whereas the former is more likely to happen when countries have similar production bundles. In the absence of detailed production data, we can use export data as a window into underlying production structures. It then becomes valuable to look at indices of export similarity to the world so as to grasp potential similarities or complementarities across bilateral partners. We take the world as comparator rather than bilateral exports as we feel that these export flows should be less distorted than exports to the other MED countries and hence more reflective of production structures. As trade barriers are removed, we would expect trade patterns to follow underlying comparative advantages and hence exporting structures to become more similar across destinations. Furthermore, we look at levels and changes in similarity indicators because we believe that where trade has been liberalised in the recent past, current patterns and tendencies are likely to be magnified with further market opening. Existing patterns of specialisation, whether inter or intra industry, are likely to become more pronounced if the forces, which caused them, are strengthened.

In terms of potential trade creation, it is then important to consider what type of trade is more likely to occur across the MED region as a result of closer integration. Under traditional models of trade one would expect that as countries become more integrated with each other, the degree of similarity of their export structures, would become less if their factor endowments differ. The degree of current similarity in exporting structures might however indicate scope for future potential complementarity between countries. Hence it may be that a more similar product mix of exports can increase the potential for intra-industry specialisation. Where we have had highly protected closed economies with broadly similar factor endowments distorted prices could lead to a break between comparative advantage and the pattern of trade and to the "wrong" products being produced or exported. As prices adjust factor endowments would come into play and labour intensive countries would all begin to sell labour intensive products. Once countries had begun to open, however other forces would come into play and finer product level comparative advantages would come into play and generate intra-industry trade. The literature on integration suggests that regions which engage in intra industry trade are more likely to make welfare enhancing preferential partners. Trade creation as a result of inter-industry trade is likely to be lower than trade creation derived from intra-industry trade. This is because the latter promotes more beneficial deep integration with increased welfare derived from economies of scale, positive externalities, niche specialisation and an increased variety of products. The former on the other hand is assumed to have static cost saving effects.

The Finger-Kreinin indicator of export similarity allows us to capture, by proxy, similarities in production structures across bilateral partners. Table 25 reports the FKs for each individual MED country with respect to exports to the world for years 1996 and 2006. Here we are interested in capturing not only existing levels of similarity, but also trends in this similarity in time. Given the predominance of Petroleum products in some MED countries' exports (i.e. the petroleum, HS chapter 27, sector occupies, in 2006, 96% of total exports in Algeria and Libya, where Syria's total HS sector 27 exports amount to 84% and Egypt's stand at 56%) we remove this sector for

the FK calculations[16]. The count distribution across a selection of FK ranges shows that in 1996 34 bilateral pairs had similarity indices ranging from 0 to 0.1 where this number decreased to 24 in 2006. In the range 0.1 to 0.2 there are 24 bilateral pairs in 1996 with this number going up to 25 in 2006. But most of the change comes about in the category 0.2 to 0.3 where in 1996 6 bilateral pairs exist but turn into 15 in 2006. The degree of similarity is thus low, but is rising in time. The low levels of similarity suggest that MED partners, after removal of trade barriers, could see trade creation based on increased inter-industry trade. But the rising trend shows some green shoots of possible intra-industry trade complementarities which could bring about more beneficial trade creation as a result of intra-industry trade in the region. This is most apparent in the top end of the similarity distribution with country pairs like Morocco and Tunisia where the FK index even though declining in time stands above 0.4. To a lesser degree, country pairs such as Turkey-Egypt and Lebanon-Israel have shown increasing similarity in time suggesting possible green-shoots of intra-industry trade creation potential. In terms of similarity in the MED5 countries, Jordan's exporting structures are increasingly similar to those of Morocco, Egypt and Tunisia whilst similarity across the other partners has largely remained unchanged.

Table 25: Finger Kreinen Indices of Total Export Similarity

FK export similarity total exports 1996													
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR	1.000												
ALB	0.252	1.000											
DZA	0.090	0.039	1.000										
EGY	0.199	0.183	0.047	1.000									
ISR	0.098	0.060	0.036	0.106	1.000								
JOR	0.146	0.065	0.120	0.103	0.094	1.000							
LBN	0.105	0.118	0.095	0.102	**0.303**	0.087	1.000						
LBY	0.007	0.016	0.126	0.019	0.018	0.048	0.015	1.000					
MRT	0.094	0.011	0.013	0.012	0.005	0.006	0.007	0.004	1.000				
PSE										1.000			
SYR	0.197	0.139	0.109	0.217	0.068	0.142	0.142	0.040	0.006		1.000		
TUN	**0.471**	**0.288**	0.054	0.197	0.100	0.106	0.126	0.011	0.016		0.172	1.000	
TUR	0.238	0.192	0.044	**0.296**	0.131	0.095	0.147	0.018	0.008		0.187	0.263	1.000
FK export similarity total exports 2006													
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR	1.000												
ALB	0.232	1.000											
DZA	0.110	0.120	1.000										
EGY	0.226	0.176	0.145	1.000									
ISR	0.105	0.058	0.046	0.116	1.000								
JOR	**0.289**	0.158	0.104	0.206	0.136	1.000							
LBN	0.121	0.158	0.145	0.208	0.174	0.177	1.000						
LBY	0.026	0.033	0.184	0.135	0.021	0.033	0.045	1.000					
MRT	0.065	0.013	0.014	0.011	0.020	0.009	0.031	0.024	1.000				
PSE										1.000			
SYR	0.210	0.130	0.105	0.215	0.092	0.183	0.186	0.032	0.009		1.000		
TUN	**0.423**	0.269	0.075	0.226	0.125	**0.266**	0.150	0.032	0.020		0.191	1.000	
TUR	0.228	0.190	0.062	**0.338**	0.139	0.209	0.227	0.032	0.010		0.214	0.281	1.000

Source: Own calculations, Comtrade. (The analysis relies on mirror flow data)

[16] The FK calculations including sector HS27 can be found in the Annex table A.6.

Overall, there is some evidence suggesting that countries are becoming increasingly similar but they remain, with a few exceptions, highly dissimilar. This implies that a S-S agreement would predominantly act on an inter-industry basis with little scope for intra-industry specialisation. Bearing in mind that niche specialisation of the intra-industry type is likely to yield higher welfare effects for the region, the results above exposed show little evidence of there being much scope for this and hence suggest that the likely positive welfare effects from closer integration in the region will be of small magnitude. However, to the extent that underlying trends can be promoted and magnified through deeper bilateral agreements, it is possible that, in time, MED countries can become more similar and commence trading at a more intra-industry level.

Another metric that can be used to capture the potential for trade creation in the S-S agreement is that of comparing the similarity of a given countries exports to another countries imports. What we would be doing here is essentially looking at how well suited a partners exporting structures are to our importing structures. The more similar these are, the higher the scope for beneficial trade creation[17]. As way of example we consider how well suited Morocco's export structures are to say Albania's importing structures by deriving an FK for these two countries. A high FK would indicate that Morocco's exports, and hence by extension production structures, are similar to Albania's import demand structures and hence imply that there may be potential for trade creation. Similarly, and for the same country pair, we would need to devise a measure looking at how similar Albania's exporting structures are to Morocco's importing structures where analogous conclusion would apply. Table 26 looks at this relationship across MED countries where the bottom panel looks at country X exports to the world as compared to country Y's imports from the world and the top panel considers country Y's exports to the world and compares these to country X's imports from the world. As way of example, the bottom panel tells us that the degree of similarity between Morocco's exports to the world and Albania's imports from the world stands at 0.147. Alternatively, the top panel tells us that the similarity in what Albania exports to the world and what Morocco imports from the world stands at 0.102. These figures, which are low, suggest that currently Morocco's export structures are not well suited to Albania's import structures and that this also holds for Albania's export structures with respect to Morocco's import structures. Looking at the count distribution across FK ranges as above, we see 66 entries within the 0 to 0.1 range, 58 in the 0.1 to 0.2 range, 23 in the 0.2 to 0.3 and only 9 in the 0.3-0.4. This highly skewed distribution implies very low bilateral similarity and hence suggests little scope for trade creation as a result of closer integration. The highest FKs in the last range have been highlighted in bold. These are largely concentrated in the entries predominantly under the category of country Y imports being most similar to Turkey's exports which suggests that Turkey's exporting structures are best suited to MED country demand for imports. The implications are that trade creation is likely to come as a result of closer integration with Turkey rather than with other MED partners.

[17] A little caution in the interpretation of this analysis is advised as the high degree of existing protection in MED countries is likely to result in distorted import demand structures. However, to the extent that these barriers are being reduced it is conceivable that importing structures are currently tending to 'normal' undistorted levels.

Table 26: Bilateral FK on imports and exports of country X and country Y (2006)

		X												
		MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
Y	MAR		0.102	0.088	0.237	0.232	0.124	0.179	0.049	0.012	0.049	0.156	0.195	**0.336**
	ALB	0.146		0.073	**0.303**	0.184	0.159	0.257	0.030	0.011	0.080	0.186	0.198	**0.353**
	DZA	0.083	0.075		0.219	0.215	0.122	0.174	0.036	0.009	0.073	0.147	0.141	**0.350**
	EGY	0.089	0.089	0.083		0.206	0.100	0.178	0.051	0.030	0.040	0.126	0.128	0.280
	ISR	0.113	0.082	0.065	0.189		0.124	0.224	0.037	0.027	0.054	0.127	0.148	0.285
	JOR	0.095	0.080	0.068	0.222	0.216		0.222	0.031	0.010	0.067	0.157	0.136	**0.352**
	LBN	0.132	0.102	0.066	0.235	0.262	0.177		0.033	0.014	0.116	0.185	0.170	**0.335**
	LBY	0.094	0.077	0.055	0.206	0.176	0.121	0.203		0.030	0.052	0.147	0.157	**0.309**
	MRT	0.063	0.053	0.058	0.201	0.164	0.094	0.175	0.024		0.061	0.114	0.116	0.230
	PSE	0.047	0.045	0.032	0.119	0.148	0.111	0.142	0.012	0.004		0.095	0.078	0.170
	SYR	0.075	0.056	0.075	0.215	0.159	0.099	0.158	0.043	0.006	0.042		0.119	**0.327**
	TUN	0.123	0.096	0.075	0.216	0.222	0.116	0.170	0.047	0.011	0.048	0.134		**0.320**
	TUR	0.112	0.110	0.124	0.225	0.230	0.124	0.195	0.066	0.018	0.054	0.123	0.159	

Source: Own calculations, Comtrade (Mirror flows). Petrol sector HS 27 removed.

It is also relevant to consider how MED country export structures have evolved vis-à-vis exports to the EU. We consider this firstly because we believe that now that most MED countries receive near duty free access to the EU market, export structures are likely to show little distortion and hence can be a more accurate measure of possible production structures. Secondly, we believe that these similarity indicators with respect to the EU can give us an idea of a) possible competitive pressures between MED countries in the EU market and b) possible scope for value chain activity in servicing the EU market. The first proposition follows that similar factor endowments in MED countries can lead to similar EU demand patterns from MED partners and hence enhanced competition between these in accessing the EU market. Hence a N-S agreement promoting competition can have important trade creating effects and also pro-competitive effects for the region. The second proposition then looks at the similarity of composition of exports to the EU to elucidate the scope for increased fragmentation of production across the region. Where countries have similar production structures, they may be able form closer bonds in attracting fragmented processes of production from the EU. In this instance, countries such as Morocco and Tunisia, may take different steps of the value chain in say producing a t-shirt where one segment of production is making the t-shirt but the other may be printing the logo. It can be hypothesised that the more similar are production structures between countries then larger the scope for this type of fragmentation. To this end, we carry out the same analysis as above, but only take into account exports to the EU in calculating the FK indicators. This exercise hypothesises that if individual countries export structures are similar in their exports to the EU, then there is some scope for potentially positive intra-industry specialisation from closer integration between these countries in servicing the European market. Table 27 captures this degree of similarity for 1996 and for 2006. As a first exercise, by subtracting the values of Table 25 from those of Table 25 we can get a measure of country pair similarities in exports to the EU relative to exports to the world (see annex, Table A.7.). Where a positive value tells us that countries are more similar in their exports to the EU than to the world, and a negative value tells us that they are more dissimilar. This exercise reveals that in 1996 the similarity across country pairs was greater for exports to the EU than for exports to the world. However, in 2006, we see an important change where

countries seem to be becoming increasingly similar in their exports to the world rather than in exports to the EU. Overall, Table 27 shows similar results to those reported in Table 25 suggesting that similarity in exporting structures to the EU is low hence the scope for beneficial trade creation arising from increased fragmentation of production structures at a regional level could be low. In terms of competition, and where the overall FKs are also low, there should be little by way of increased competitive pressures in accessing the EU market as MED countries appear to export different bundles of goods to the EU[18].

Table 27: Finger Kreinen Indices of Similarity of exports to the EU-25 1996 and 2006

FK export similarity total exports 1996													
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR	1.000												
ALB	0.288	1.000											
DZA	0.074	0.039	1.000										
EGY	0.175	0.150		1.000									
ISR	0.131	0.069	0.044	0.115	1.000								
JOR	0.126	0.051	0.079	0.112	0.105	1.000							
LBN	0.166	0.124	0.078	0.135	0.240	0.100	1.000						
LBY	0.008	0.014	0.133	0.023	0.015	0.047	0.018	1.000					
MRT	0.049	0.011	0.014	0.012	0.004	0.004	0.006	0.005	1.000				
PSE													
SYR	0.199	0.141	0.094	0.189	0.074	0.140	0.176	0.039	0.005		1.000		
TUN	0.491	0.312	0.053	0.156	0.118	0.086	0.169	0.012	0.017		0.181	1.000	
TUR	0.267	0.192	0.040	0.247	0.139	0.090	0.158	0.018	0.008		0.181	0.284	1.000
FK export similarity total exports 2006													
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR	1.000												
ALB	0.263	1.000											
DZA	0.074	0.109	1.000										
EGY	0.223	0.163	0.131	1.000									
ISR	0.108	0.059	0.053	0.112	1.000								
JOR	0.117	0.116	0.135	0.092	0.158	1.000							
LBN	0.126	0.167	0.120	0.126	0.169	0.185	1.000						
LBY	0.022	0.035	0.201	0.119	0.022	0.055	0.057	1.000					
MRT	0.068	0.014	0.019	0.011	0.007	0.008	0.010	0.017	1.000				
PSE	0.064	0.020	0.015	0.034	0.061	0.063	0.028	0.009	0.000	1.000			
SYR	0.180	0.148	0.059	0.192	0.072	0.169	0.146	0.034	0.008	0.082	1.000		
TUN	0.461	0.282	0.064	0.200	0.133	0.111	0.120	0.026	0.019	0.077	0.214	1.000	
TUR	0.254	0.188	0.042	0.260	0.135	0.088	0.181	0.020	0.008	0.016	0.205	0.277	1.000

Source: Own calculations, Comtrade. (The analysis relies on mirror flow data.)

Overall, in terms of potential welfare enhancing complementarities that could result from closer economic integration, we see how MED countries' heterogeneity across exporting structures bodes badly for these being greatly positive. We do, however, see evidence of increases in these potential complementarities in time, but reiterate that these remain modest. For the country pairing that show the strongest similarity, Morocco-Tunisia, we see how time has eroded these

[18] It is however possible that competitive pressures are strong at the product level.

similarities but nonetheless note that they remain relatively high. This could suggest that these two countries could benefit most from a bilateral agreement.

6 ANALYSIS OF MED5 FOCUS COUNTRIES

In this section we consider the MED5 countries in more detail. We start by providing an account of the share of trade originating from MED5 countries that receives preferences in the EU market. We then move to a more disaggregated analysis considering the top 10 HS 2-digit export sectors to the EU and determining the rates of utilisation of preferences. We also look at average weighted MFN tariffs in each category so as to see if there is any evidence of there being impediments to using the preferences granted.

The second part of this section digs deeper into the trade patterns of the 5 identified focus countries where our interest lies not only in identifying the structure of top exports, but also in how these exports are performing in different markets of interest. For this analysis, we rely on comparative indicators across a selection of top 15 exports of each focus country[19]. The rationale for this analysis is based on international trade theory, by way of the empirically tested gravity equation, which suggests that countries should export to a given market following comparative advantages and also economic mass and proximity of markets. In this respect and to the extent that actual trade values fall short of *predicted* trade values, we suggest that there may be evidence of impediments to access a given market. However, it is important to note that there may be other elements at play such as differences in demand structures and heterogeneous tastes which might be guiding these shortfalls in trade. This purely data driven exercise is hence to be considered in conjunction with the analysis provided in subsequent chapters on the existence of NTBs in the EU and MED markets.

6.1 MED5 PREFERENCES IN THE EU

The Association Agreements are already under way and have achieved substantial liberalisation in the region with respect to the EU market, however, there are costs associated with obtaining preferential status. One of these costs is that of proving origin status by complying with Rules of Origin procedures. In this section we look at the degree of utilisation of preferences for MED5 exports to the EU according to the top HS 2-digit products for 2007. We also look at the average weighted MFN tariffs for the sector as a measure of the cost/benefit for applying for origin.

Table 28 looks at total imports from MED5 countries into the EU according to eligibility and import regime. Panel A (MFN) captures the MFN eligible trade entering through an MFN of zero (A1), and MFN that is non-zero (A2) or an unknown regime (A3)[20]. The second panel (B) then looks at imports that are eligible for preferences and delimits how these are entering the EU market. Here we are interested in several categories; Column B2 shows us the amount of trade that is eligible for preferences but that enters the EU market through a positive MFN tariff (preferences have not been able to be obtained). This could be due to onerous compliance

[19] Readers are referred to the annex A.8 for an in depth discussion of the indicators used in this section.
[20] Note that where there is already a zero MFN, no preferential access is possible.

requirements of RoO or other such associated costs but it may also be the case that the benefit from the preference margin does not cover the cost of obtaining preference. Column B3 shows the share of trade that is eligible for preferences and that enters the EU market through zero tariff barriers and column B4 looks at trade where there is eligibility for preferences but these preferences are in the form of a positive tariff[21]. The unknown entries (A3, B5) are those where one can determine the eligibility but not the regime of entry, whereas category C1 is where both are unknown. As way of example on how to read the table, consider the entry in Table 28 for Egypt. Here we see that 80.81% (A1 plus B3) of imports enter the EU market facing a zero tariff and 10.71% of imports are eligible for preferences but enter the EU market facing a positive MFN tariff. Similarly for Morocco, Table 28 shows that 70% of Moroccan exports to the EU are eligible for duty free access and enter so into the EU market whereas 7.47% of total exports to the EU, even though eligible for preferential market access, pay an MFN tariff. Overall Table 28 suggests that MED5 duty free access to the EU market covers 80% of trade, but there remains an important share of trade that is eligible for duty free access but is unable or unwilling to apply for such preferences. This is most notable for Jordan with 18% of exports to the EU falling within this category whilst it is much less apparent for Tunisia where this occurs to 4.62% of exports to the EU.

Table 28: MED5 share of total exports to the EU by regime 2007 (%)

	MFN (A)			GSP/Preferences (B)					Unknown (C)
	MFN zero (1)	MFN non-zero (2)	Unknown (3)	MFN zero (1)	MFN non-zero (2)	Any preference zero (3)	any preference non zero (4)	Unknown (5)	Unknown (1)
Egypt	45.57	0.05		0.06	10.71	35.24	3.30	3.53	1.54
Israel	47.52	0.94	0.00	0.04	6.76	33.70	1.71	7.10	2.23
Jordan	43.30				18.83	29.16	1.33	3.12	4.26
Morocco	13.35	0.02	0.01		7.47	70.32	5.21	2.83	0.77
Tunisia	28.19	0.02			4.62	61.77	0.42	4.64	0.35

Source: Own calculations from Eurostat, XTnet

We also consider what the above table looks like for individual MED5 countries across a finer level of disaggregation. This allows us to identify sectors that are finding it harder to take advantage of the preferences extended by the EU. To this end, we rank the top 10 export sectors (at the HS 2 digit level) to the EU and look at the regime of entry into the market. We also show weighted MFN tariffs across these sectors as this allows us to determine if the shortcomings in obtaining preferences can be attributed to low tariff margins or to other factors such as onerous RoO procedures. Table 29 looks at this for Egypt. The first entry in the table is for 'mineral fuels' which, in 2007, occupied over 44% of total EU imports from Egypt. Looking at the regime of entry, Table 29 shows that 72% of trade receives duty free access to the EU whereas a large share of the rest (19%), even though eligible for preferences, enters paying the small tariff which stands at 0.83%. This could suggest that given a small tariff, the cost of providing proof of origin might be higher than the benefit of obtaining preferential status hence a country might choose to enter the EU market via the MFN regime rather than providing proof of origin. On the other hand, consider the 'articles of apparel' sector which represents just under 4% of Egypt's exports

[21] It may be the case that tariffs are being reduced according to the agreed tariff dismantling schedules.

to the EU. Column B shows that all exports of this category are eligible for preferences and column B3 indicates that 83% of exports in this sector benefit from duty free access. Equally, column B2 suggests that over 10% of exports are not able or willing to comply with the requirements set to receive preferences and have to pay the 11.94% tariff. This contrasts with the case exposed for the 'mineral fuel' sector where in this case the preferential margin is large. It could be suggested that some companies find particularly onerous bureaucratic procedures in trying to apply for preferences in this sector.

Table 29: Top imports from Egypt by trade regime 2007 (%)

				MFN (A)			GSP/Preferences (B)					N/A (C)
	total share	MFN		MFN zero (1)	MFN non-zero (2)	N/A (3)	MFN zero (1)	MFN non-zero (2)	Any pref zero (3)	any pref non zero (4)	N/A (5)	N/A (1)
Mineral fuels	44.1	0.83		72.20				19.01	6.52		2.26	0.00
Iron and steel	7.42	0.22		96.03				0.14	3.27	0.02	0.47	0.07
Fertilisers	4.96	6.44		0.00				3.55	95.84		0.46	0.15
Aluminium and articles thereof	4.46	6.73		0.06				0.63	98.42	0.02	0.86	0.01
Articles of apparel and clothing knitted or crocheted	3.80	11.94						10.39	83.15	0.60	5.85	0.01
Edible vegetables	3.41	9.67		1.53	0.52			6.74	47.74	33.21	9.85	0.41
Copper and articles thereof	3.15	4.38		8.84				3.18	87.90	0.08	0.00	0.00
Plastics and articles thereof	2.56	5.88		2.72				1.63	63.69	0.91	30.36	0.70
Edible fruit and nuts; peel of citrus fruits or melons	2.46	12.71		0.91	0.90			7.41	13.82	70.46	5.01	1.49
Electrical machinery and equipment	2.37	2.09		5.87				5.50	88.12		0.29	0.21
TOTAL	78.7											

Source: own calculations, Trains and Eurostat (MFN tariffs are weighted average according to EU imports from country)

Similarly, Table 30 shows the top 10 HS 2digit export sectors to the EU for Israel. Here we underline the 'edible vegetables' sector occupying 3.64% of total exports to the EU and where there is evidence that 39% of exports are eligible for preferences but currently face the 6.24% tariff. This could suggest some evidence of burdensome or costly procedures in applying for preferences as the preference margin is high. In contrast, 20% of the 'mineral fuels' sector pays the full MFN tariff, be this stands at 2.61% implying low preference margins and hence this may be indicative of the cost of applying for the preference being above that of the preference margin.

Table 30: Top imports from Israel by trade regime 2007 (%)

				MFN (A)			GSP/Preferences (B)					N/A (C)
	share	MFN		MFN zero (1)	MFN non-zero (2)	N/A (3)	MFN zero (1)	MFN non-zero (2)	Any pref zero (3)	any Pref non zero (4)	N/A (5)	N/A (1)
Natural or cultured pearls, precious or semi-precious stones,	18.48	0.07		97.35				0.32	2.01		0.19	0.14
Electrical machinery and equipment	10.27	1.49		58.54				4.67	32.07		2.83	1.89
Nuclear reactors, boilers, machinery and mechanical appliances;	8.87	1.05		33.55				9.68	46.74		7.49	2.53
Plastics and articles thereof	7.11	5.76		4.23				2.93	79.92		12.01	0.91
Mineral fuels	5.95	2.61		25.25				20.94	53.76		0.04	0.00
Optical, photographic, cinematographic,	5.83	0.88		71.30				6.79	17.07		4.20	0.64
Pharmaceutical products	4.36	0		100.00								0.00
Organic chemicals	4.29	1.43		89.22				0.46	7.14		2.57	0.62
Edible vegetables	3.64	6.24		0.09	9.86	0.03		39.22	12.92	31.61	6.08	0.19
Tools, implements, cutlery, spoons and forks,	2.91	2.69						3.23	25.68		71.03	0.06
TOTAL	71.70											

Source: own calculations, Trains and Eurostat (MFN tariffs are weighted average according to EU imports from country)

For Jordan, Table 31 shows that the sector with the lowest degree of preference utilisation is the 'Rubber and articles thereof' which occupies 8.86% of total exports to the EU and where 97% of exports are eligible for preferential treatment but end up paying the 4.42% MFN tariff. Furthermore, the 'Nuclear reactors, boilers, machinery and mechanical appliances' sector also shows signs of little preference utilisation where the tariff faced is 1.1%. Overall, and except for the two earlier mentioned sectors, a large share of Jordan's top export sectors enjoy duty free access to the EU.

Table 31: Top imports from Jordan by trade regime 2007 (%)

				MFN (A)			GSP/Preferences (B)					N/A (C)
	total share	MFN		MFN zero (1)	MFN non-zero (2)	N/A (3)	MFN zero (1)	MFN non-zero (2)	Any pref zero (3)	any Pref non zero (4)	N/A (5)	N/A (1)
Inorganic chemicals;	12.78	5.38		0.29				2.13	85.02		12.56	
Fertilisers	12.40	0.59		90.00				0.49	5.29		3.20	1.03
Rubber and articles thereof	8.86	4.42		1.09				97.60			1.31	
Natural or cultured pearls, precious or semi-precious stones,	8.35	1.42		44.73				4.43	44.86			5.97
Aluminium and articles thereof	8.31	2.58		63.02				0.29	36.69			
Salt; sulphur; earths and stone	5.76	0		98.33				0.04	1.63		0.00	
Edible vegetables	5.36	7.75		0.25				4.27	64.70	15.14	5.91	9.72
Nuclear reactors, boilers, machinery and mechanical appliances;	4.45	1.1		17.52				49.71	31.50		0.69	0.58
Copper and articles thereof	3.69	0.01		99.75				0.25				
Electrical machinery and equipment	3.03	5.81		36.66				16.56	0.01		6.37	40.4
TOTAL	73.01											

Source: own calculations, Trains and Eurostat (MFN tariffs are weighted average according to EU imports from country)

Looking at Morocco's top exports to the EU in Table 32, we see how 'articles of apparel (not knitted or crocheted)' occupies a 21% share of total exports to the EU where the MFN weighted tariff stands at 11.64%. Morocco receives preferential duty free access to the EU in this category for 91% of its exports, where for 5% it pays the MFN tariff even though eligible for duty free preferences. In contrast 'articles of apparel (knitted or crocheted)' pays a similar tariff in entry to the EU for 12% of exports where duty free access is granted to 83% of exports. This contrasts with Table 29 where we find similar patterns for this sector in Egyptian exports to the EU. These degrees of commonality may point to existing barriers to accessing preferences in this sector.

Table 32: Top imports from Morocco by trade regime 2007 (%)

				MFN (A)			GSP/Preferences (B)					N/A (C)
	total share	MFN		MFN zero (1)	MFN non-zero (2)	N/A (3)	MFN zero (1)	MFN non-zero (2)	Any pref zero (3)	any Pref non zero (4)	N/A (5)	N/A (1)
Articles of apparel and clothing accessories, not knitted or crocheted	21.93	11.64						5.39	91.49	0.00	3.11	0.01
Electrical machinery and equipment	16.21	1.82		19.10				9.40	71.25		0.16	0.10
Articles of apparel and clothing accessories, knitted or crocheted	9.45	11.92						12.83	83.72	0.01	3.42	0.02
Edible vegetables	7.14	8.54		0.02	0.01	0.04		12.65	37.52	47.15	2.53	0.07
Fish and crustaceans,	6.54	9.7		1.26				0.60	97.59	0.29	0.09	0.16
Edible fruit and nuts; peel of citrus fruits or melons	3.81	13.71		1.83	0.36	0.04		6.82	45.24	43.12	0.88	1.71
Preparations of meat, of fish or of crustaceans	3.48	18.67		0.01				4.61	89.03	0.16	6.04	0.15
Salt; sulphur; earths and stone	3.36	0		97.82					1.99		0.19	
Fertilisers	3.12	6.09		0.82				1.07	92.13		5.98	
Footwear, gaiters and the like;	2.91	7.53						1.34	95.27	0.03	0.45	2.91
TOTAL	77.96											

Source: own calculations, Trains and Eurostat (MFN tariffs are weighted average according to EU imports from country)

Table 33 considers Tunisia's top export sectors to the EU. Here the degrees of preference utilisation tend to be high with the exception of the 'nuclear reactors' sector where 13.12% of exports do not appear to benefit from preferential access but where the low tariff may disincentivise firms to tackle the cost of obtaining preferences.

Table 33: Top imports from Tunisia by trade regime 2007 (%)

				MFN (A)			GSP/Preferences (B)					N/A (C)
	total share	MFN		MFN zero (1)	MFN non-zero (2)	N/A (3)	MFN zero (1)	MFN non-zero (2)	Any pref zero (3)	any Pref non zero (4)	N/A (5)	N/A (1)
Articles of apparel and clothing accessories, not knitted or crocheted	20.68	11.44						2.86	85.69	0.43	11.01	0.01
Electrical machinery and equipment	20.22	1.86		26.96				5.18	66.43		1.25	0.17
Mineral fuels	17.83	0.26		90.91				5.20	3.88		0.00	
Articles of apparel and clothing accessories, knitted or crocheted	8.08	11.76						2.74	91.77	0.04	5.45	0.01
Footwear, gaiters and the like;	5.09	6.57						0.53	96.75	0.02	0.60	2.10
Nuclear reactors, boilers, machinery and mechanical appliances;	3.04	1.2		40.76				13.12	45.38		0.75	0.00
Fertilisers	2.61	5.8		1.27				3.83	82.93	0.31	11.66	
Vehicles other than railway or tramway rolling-stock,	2.51	5.1		0.07				1.70	97.24	0.05	0.93	0.01
Other made-up textile articles;	1.55	10.57		3.17				1.23	65.55	0.00	30.05	0.00
Optical, photographic, cinematographic,	1.48	0.87		54.33				5.86	39.58		0.07	0.16
TOTAL	83.10											

Source: own calculations, Trains and Eurostat (MFN tariffs are weighted average according to EU imports from country)

Overall, Table 29 to Table 33 show how, for top exports of MED5 countries, the degree of duty free access to the EU is of high magnitude. There is however some evidence for certain products where the costs of obtaining preferences are high. This is predominantly in the Textile and Clothing sectors.

6.2 EGYPT

The Association Agreement between the EU and Egypt entered into force in 2004. Prior to this Egypt has been engaged in bilateral liberalisation with Agadir countries and is a member of PAFTA (Pan-Arab Free Trade Area). In 2007, Egypt's trade agreement with Turkey entered into force. Whilst the agreements, in terms of liberalisation schedules and goods covered, are in different stages, it is not unreasonable to expect Egypt to trade most with its preferential partners. In terms of tariff barriers to trade, Egypt has a relatively protected economy which suggests that there is scope for either trade creation or trade diversion arising from these preferential schemes. Out of the 5 focus countries, Egypt is the one which exports most heavily to the MED region with 14.9% of total exports destined to this region, furthermore evidence points to strong annual growth of exports to the region in excess of 8%[22]. The largest intra-regional destination of Egyptian products in 2004 was shown to be Jordan (3.8%) and then Turkey (3.05%) which is unsurprising given the aforementioned bilateral agreements which suggest strong links with these two countries. In terms of extra-MED region exports, the 'natural trading partner' appears to be the EU- market which occupies 34.8% of exports and from where 26.6% of imports originate. But where growth of exports to the EU appeared to be above 10% annually, imports

[22] See Table 7

from the EU have fallen at an annual rate of 3.8%. Intra-MED imports on the other hand have seen important growth with an annual rate above 20%. Table 34 shows the important concentration of top exports in the mineral fuels industry which in 2006 occupies over 45% of total exports and over 55% of exports to the EU. Correspondingly the revealed market access indicators (RMA1 and RMA2) are high in the EU market implying that Egyptian exports to the EU in this category are higher than what would be predicted by economic mass or comparative advantages. This sector's strong performance in the EU market is not matched in other MED countries which could suggest that there could be market access impediments. Alternatively it is possible that there are closer suppliers of petroleum products to the region such as Algeria, Libya or Syria. Overall, Egypt's top exports seem to follow strong revealed comparative advantages but there is evidence pointing to the possible existence of market access barriers both in accessing the EU and MED markets. For illustrative purposes we consider the orange export sector which has a very strong global comparative advantage. The RMA indicators (both below 1 in the EU and MED markets) indicate that there is reason to believe that some market access restrictions may exist. In the case of the EU market, oranges appear to have a strong bilateral RCA implying that the share of imports from Egypt is higher than the equivalent share of imports from the world hence implying that Egyptian oranges receive, comparatively, a strong access to the EU, however this access falls short of the strong RCA that Egypt enjoys in world markets. Furthermore trade flows suggest that Egypt exports more oranges to the rest of the world than to the EU even after normalising by economic mass. These effects could be driven by different preferences across markets and cannot be solely attributed to market access issues. Other export sectors in which there could be market access concerns in the EU as suggested by the RMA indicators are those of rice, trousers or bars of iron/steel. Other top 15 sectors identified are in primary goods sectors (rice, oranges, urea, Cotton); in processed products of iron or steel; and in textile and clothing sectors where market access varies both by goods and destination. Table 34 also shows that the composition of exports to the EU varies greatly to that seen in the MED market which points to either heterogeneous demand or preferences across regions or to the existence of market access restrictions.

Table 34: Egypt Top 15 exports to the World 2006

HS Code	product description	Export share to the World	Export Share to the EU	Export Share to MED	RCA	BRCA EU	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
271111	Liquefied :-- Natural gas	19.06%	22.81%	0.00%	37.72	81.72	0.00	2.17	0.00	2.92	0.00	0.01	0.00	0.00
271000	Petroleum oils and oils obtained fr	12.88%	12.37%	2.50%	3.55	3.87	0.46	1.09	0.13	1.87	1.21	0.63	0.27	0.57
270900	Petroleum oils and oils obtained fr	12.53%	18.26%	0.00%	1.45	2.81	0.00	1.94	0.00	4.94	0.00	0.58	0.09	
720839	Other, in coils, not further worked	1.95%	1.54%	0.50%	19.55	17.85	2.48	0.91	0.13	1.34	1.61	0.14	0.04	0.00
310210	Urea, whether or not in aqueous sol	1.88%	2.67%	0.36%	27.94	87.25	1.79	3.12	0.06	4.55	1.21	0.02	0.00	0.00
252329	Portland cement :-- Other	1.47%	0.02%	6.76%	30.00	0.89	33.53	0.03	1.12	0.02	28.65	0.01	0.55	0.00
271112	Liquefied :-- Propane	1.29%	2.34%	0.76%	7.43	18.27	0.89	2.46	0.12	13.16	3.70	0.83	0.00	0.82
080510	Oranges	1.18%	0.70%	0.14%	40.84	17.07	0.69	0.42	0.02	0.88	0.73	0.00	0.00	0.02
740811	Of refined copper :-- Of which the	1.12%	0.73%	6.80%	8.67	4.93	61.97	0.57	7.15	1.01	38.06	0.08	0.20	0.00
520100	Cotton, not carded or combed.	1.06%	0.43%	0.67%	10.27	28.60	3.81	2.79	0.37	0.54	3.94	0.73	0.79	0.62
100630	Semi-milled or wholly milled rice,	1.02%	0.01%	6.61%	19.23	0.36	86.94	0.02	4.52	0.01	40.68	0.27	0.76	0.00
620342	Trousers, bib and brace overalls, b	1.00%	0.30%	0.03%	6.35	1.53	0.03	0.24	0.01	0.38	0.18	0.22	0.09	0.47
721420	Containing indentations, ribs, groo	0.94%	0.44%	3.41%	12.42	6.29	5.19	0.51	0.42	0.64	22.62	0.00	0.00	0.00
271121	In gaseous state :-- Natural gas	0.94%	0.10%	8.64%	0.85	0.05	7.69	0.06	9.03	0.12	57.53	0.00	0.00	0.00
610910	Of cotton (T-shirts)	0.92%	1.56%	0.10%	5.16	5.80	0.09	1.13	0.02	8.55	0.69	0.09	0.03	0.57
	Total	59.24%	64.27%	37.28%										
	Average				15.43	18.49	13.70	1.16	1.54	2.73	13.39	0.24	0.19	0.22

Source: Own calculations, Comtrade (mirror flows)

Table 35 then ranks Egypt's exports to other MED partners in descending order of importance and selects the top 15 products exported to this region. Initially we see strong differences between this table and Table 34 where there is a much lower concentration in the mineral fuels sector than that previously reported. Overall, Egyptian exports to the MED region continue to follow comparative advantages and generally show a strong bilateral RCA implying that Egypt's market presence in the region for its top products is higher than the average market presence of other competitors. RMA1 indicators point to possible existing barriers in iron and steel sectors, in cement and in some petroleum products where global comparative advantages surpass bilateral comparative advantages. RMA2 values show that Egypt export's in these categories are much higher than what would be predicted by economic mass and hence suggest that market access in the MED region appears to be good for Egypt's top exports. These strong numbers may be the result of the pre-established trade agreements with some of the MED countries in the form of either PAFTA, Agadir or the new agreement with Turkey and could suggest, by precedent, that despite there being structural differences across MED partners in trading patterns, regional trade agreement may have an important endogenous effect that increases trade between bilateral partners. The worry is that this may have come about through trade diversion rather than trade creation and hence may be welfare reducing.

Table 35: Egypt Top 15 exports to Mediterranean Partners 2006

HS Code	product description	Export share MED	Export Share EU	RCA	BRCA MED	RMA1 MED	RMA2 MED	IIT MED
271121	In gaseous state :-- Natural gas	8.64%	0.10%	0.85	7.69	9.03	57.53	0.00
740811	Of refined copper :-- Of which the	6.80%	0.73%	8.67	61.97	7.15	38.06	0.00
252329	Portland cement :-- Other	6.76%	0.02%	30.00	33.53	1.12	28.65	0.00
100630	Semi-milled or wholly milled rice,	6.61%	0.01%	19.23	86.94	4.52	40.68	0.00
721420	Containing indentations, ribs, groo	3.41%	0.44%	12.42	5.19	0.42	22.62	0.00
271000	Petroleum oils and oils obtained fr	2.50%	12.37%	3.55	0.46	0.13	1.21	0.57
270400	Coke and semi-coke of coal, of lign	2.23%	0.16%	6.45	84.37	13.09	40.03	0.00
271600	Electrical energy. (optional headin	1.84%	0.00%	0.73	73.27	100.72	60.54	0.00
210690	Other (food preparations nes)	1.78%	0.01%	2.69	16.23	6.04	26.69	0.11
280300	Carbon (carbon blacks and other for	1.57%	0.37%	19.29	50.87	2.64	23.88	0.00
252310	Cement clinkers	1.49%	1.04%	28.81	15.05	0.52	13.56	0.00
760511	Of aluminium, not alloyed :- Of whi	1.46%	0.26%	15.81	60.00	3.80	33.50	0.00
390120	Polyethylene having a specific grav	1.45%	1.15%	4.66	14.01	3.01	12.19	0.03
730890	Other (structures)	1.31%	0.05%	1.53	11.53	7.52	38.23	0.22
690890	Other (glazed ceramic tiles)	1.31%	0.08%	3.77	7.51	1.99	27.53	0.01
	Total	49.15%	16.77%					
	Average			10.56	35.24	10.78	30.99	0.06

Source: Own calculations, Comtrade (mirror flows)

6.3 ISRAEL

Israel's longstanding trade relations with the EU resulted in the entry into force of an Association Agreement in 2000. 15 Years earlier, Israel had signed an FTA agreement with the US. Table 7 identified Israel's 'natural trading partners' as being outside the MED region where the EU appeared as the most important origin of imports (over 40%) whilst NAFTA was the preferred destination of exports (38%) in 2004. The share of total intra-Med trade was shown to be below 3% of total trade, where most of this is with Turkey. Table 36 looks at Israel's top 15 exports to the world in 2006 and delimits how these are performing in different markets. Here we are primarily concerned with Israel's market access in the EU and hence focus predominantly on this

market with our indicators. From the table we see a strong concentration of top exports in ‘diamonds’ (sectors 710239 and 710231) where these take over a third of total exports to the world and where Israel has a strong comparative advantage both in the world market and in the EU market. We also note that this sector appears to have relatively high intra-industry trade linkages with the EU and the world. By and large, and despite high levels of concentration driven by the ‘diamonds’ sector, Israeli exporting structures appear to span a large array of sectors. These vary from industrial parts and accessories for ‘telephone apparatus’, ‘aeroplanes and helicopters’ and ‘data processing machines’ to final goods in precision apparatus such as those used in hospitals. We also see a strong chemical and pharmaceutical sector showing strong comparative advantages. Overall, in terms of market access to the EU as delimited by comparative advantages (RMA1 EU) we see how Israel’s comparative advantage in the EU appears to follow that witnessed in the world. Where the RMA2 looks at bilateral trade according to economic mass, Table 36 suggests that there is some evidence of reduced market access in the EU for ‘medicaments’ and ‘transmission apparatus’. These market access shortcomings cannot be fully attributed to the existence of market barriers as they can also be driven by differences in tastes and preferences. In the case of medicaments, we also see and RMA1 indicator below 1. This suggests that the comparative advantage enjoyed by this industry with respect to the world is not reciprocated in the EU market. Table 36 also considers how the top 15 products behave in the MED region by looking at various bilateral indicators. We see a very low export share to the region in Israel’s top products which translates into low revealed market access in the region. Overall there is little evidence of Israel enjoying a strong market access in the region for its top export products, but this could be driven by differences in tastes and lower demand in the from MED partners for these types of products. The bRCA in the region (bRCA MED), which compares Israel’s market share of exports to the MED partners with that of the world, remains above one in many goods implying that Israel enjoys, comparatively, a strong presence in the MED region, however the RMA1 for the region shows that this presence is lower than would be predicted by Israel’s strong comparative advantage.

It is also important to note that Israel’s prior trade agreement with the US and its AA with the EU is likely to have caused some trade re-orientation. This effect occurs when EU products match the market access that the US receives in Israel. To grasp the potential scope for this effect, we derived, in previous sections, a measure of similarity in importing structures across these destinations and suggested that given high similarity, the scope for trade re-orientation should not be discounted. This effect should be welfare enhancing for Israel as it essentially implies the removal of trade diversion caused from the US agreement as more efficient EU imports displace imports from the US. However, Israel’s tariffs being very low, this effect would not have been of high magnitude.

Table 36: Israel Top 15 exports to the World 2006

HS Code	product description	Export share to the World	Export Share to the EU	Export Share to MED	RCA	BRCA EU	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
710239	Non-industrial :-- Other (diamonds)	31.93%	13.49%	2.75%	87.20	82.58	1.91	0.95	0.02	0.37	0.15	0.48	0.62	0.13
710231	Non-industrial :-- Unworked (diamonds)	7.76%	11.30%	0.00%	29.49	40.30	0.00	1.37	0.00	1.27	0.00	0.78	0.59	
300490	Other (Medicaments)	6.76%	2.56%	2.37%	3.90	0.99	1.56	0.25	0.40	0.33	0.60	0.45	0.75	0.01
851790	Parts (Telephony apparatus)	4.43%	4.75%	1.11%	19.35	25.16	5.68	1.30	0.29	0.94	0.43	0.10	0.11	0.41
880330	Other parts of aeroplanes or helicopters	2.09%	0.00%	0.00%	5.42	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00
820900	Plates, sticks, tips (cutlery)	1.27%	2.33%	0.19%	32.78	43.33	7.34	1.32	0.22	1.60	0.26	0.12	0.07	0.00
380890	Other (Chemical Products Misc)	1.22%	2.36%	0.40%	86.98	129.67	22.58	1.49	0.26	1.69	0.57	0.01	0.02	0.00
392490	Other (tableware, kitchenware)	1.17%	2.40%	0.28%	30.55	63.26	8.24	2.07	0.27	1.79	0.41	0.04	0.03	0.45
852520	Transmission apparatus	1.01%	0.81%	0.22%	0.61	0.39	0.17	0.64	0.27	0.70	0.38	0.87	0.55	0.05
310590	Other (mineral, chemical fertilizers)	1.01%	0.54%	0.75%	145.36	175.78	53.65	1.21	0.37	0.47	1.27	0.00	0.00	0.00
901819	Electro-diagnostic apparatus	0.92%	0.86%	0.17%	15.59	15.22	2.94	0.98	0.19	0.82	0.31	0.19	0.35	0.00
847330	Parts and accessories automatic data processing machines)	0.87%	0.98%	0.12%	0.56	0.70	0.19	1.26	0.34	0.99	0.23	0.81	0.62	0.62
901890	Other instruments and appliances (medical,surgical,dental)	0.82%	1.02%	0.36%	3.65	3.94	1.33	1.08	0.37	1.09	0.74	0.41	0.53	0.01
902290	Other, including parts and accessor (X-ray, radio etc)	0.81%	0.69%	0.46%	16.43	13.39	5.74	0.81	0.35	0.74	0.98	0.47	0.55	0.00
711319	Of precious metal (jewelry)	0.77%	0.55%	0.24%	2.76	4.17	0.69	1.51	0.25	0.62	0.53	0.47	0.91	0.11
	Total Average	62.83%	44.64%	9.43%	32.04	39.92	7.47	1.08	0.24	0.90	0.46	0.38	0.38	0.13

Source: Own calculations; Comtrade

Where the previous table looked at the top Israeli exports to the world, Table 37 shows top exports to the MED region in 2006. As a first exercise, it is important to consider differences in the products that are being exported to the different destinations. It is not unreasonable to expect similarities in the product mix across destinations as trade theory suggests that countries export according to comparative advantages where differences in exports across destinations could be explained by differences in tastes and hence demand. Form Table 37 we observe that the product mix towards the MED region differs considerably from that towards the world. As earlier stated, this can be due to differences in tastes, but this can also bring to light market access issues for Israeli products in the MED region. Overall, we see, from Table 37, that the top 15 products exported to the MED region benefit from strong bilateral comparative advantages and show very high revealed market indicators. Notable exceptions to this trend are non-industrial diamonds and medicaments which have an RMA1 and 2 below 1 suggesting that regional RCAs are below global RCAs and that access to the MED market is below that which would be expected by gravity type variables. Looking at the IIT indicators we see that the only significant overlap is in the 'polyethylene' sector where the IIT is of 0.49, IIT in other sectors is either low or inexistent.

Table 37: Israel Top 15 exports to Mediterranean Partners 2006

HS Code	product description	Isrl export share MED	Isrl Export Share EU	RCA	BRCA MED	RMA1 MED	RMA2 MED	IIT MED
720449	Other waste and scrap (Ferrous)	7.04%	0.04%	1.12	5.95	5.31	77.32	0.00
390210	Polypropylene	4.41%	0.37%	1.50	9.02	6.03	37.85	0.08
732690	Other (articles of iron and steel)	3.11%	0.43%	1.71	19.99	11.70	14.38	0.13
710239	Non-industrial :-- Other (diamonds)	2.75%	13.49%	87.20	1.91	0.02	0.15	0.13
390110	Polyethylene having a specific	2.66%	0.33%	0.89	10.35	11.62	31.16	0.49
481910	Cartons, boxes and cases, of corrug	2.64%	0.00%	1.23	57.43	46.51	80.28	0.23
847090	Other (calculating machines)	2.58%	0.06%	18.32	284.18	15.51	42.61	0.00
300490	Other (medicaments)	2.37%	2.56%	3.90	1.56	0.40	0.60	0.01
290243	Xylenes:-- p-Xylene	1.97%	0.98%	4.52	106.26	23.50	10.06	0.00
841582	Other :-- Other, (air-con machines)	1.85%	0.34%	6.00	42.54	7.09	17.83	0.00
710812	Non-monetary :-- (Gold)	1.81%	0.03%	0.17	114.12	680.77	61.15	0.00
847050	Cash registers	1.67%	0.25%	21.03	116.23	5.53	12.05	0.00
380991	Other :-- (finishing agents, dyes)	1.61%	0.02%	2.46	35.78	14.53	59.59	0.10
290230	Toluene (organic chemicals)	1.47%	0.04%	2.42	37.22	15.40	50.55	0.00
290129	Unsaturated:-- (acyclic Hydrocarbons)	1.39%	0.02%	2.65	237.83	89.66	56.02	0.00
	Total	39.36%	18.96%					
	Average			10.34	72.02	62.24	36.77	0.08

Source: Own calculations; Comtrade

6.4 JORDAN

The AA agreement between Jordan and the EU entered into force in 2002, one year after the US-Jordan agreement. As posited earlier in this document, the degree of trade diversion as a result of an agreement can be reduced as a country increases its bilateral agreements with natural trading partners given that the probability of catching least cost producers increases. In this respect, Jordan also has pre-established agreements with Singapore and is member to the PAFTA. In terms of imports, preferential partners such as the EU and the US occupy just over 30% of total imports with other sources being the GCC and the ASEAN+3 region as we saw from Table 7. To the extent that a large share of imports comes from non-preferential partners and where Jordan's has high levels of protection (Table 5) there may be scope for trade diversion. In terms of

exporting structures, Jordan is the MED country that exports the least to the EU in terms of shares and also shows modest growth in exports to this destination. The preferred export destination appears to be the NAFTA region taking 26% of total exports with other non-identified regions taking the largest share. Where intra-MED trade is concerned, Jordan shows important links with the region which takes over 13% of total exports and from where Jordan sources over 11% of imports. It is important to note that there are already pre-established trade agreements with some MED partners and that these numbers may reflect this.

Table 38 shows strong diversity in Jordan's top exports to the world with 4 sectors in T&C occupying near 16.5% of total exports, 2 within the fertilizer category occupying 10.5% and another couple in the pharmaceuticals category with 6.8% of total exports. Other top export sectors are engaged in jewellery, tomatoes or aluminium casks. Looking at how these exports are performing in the EU market we see how most, besides 'Calcium Phosphates' and 'Carnallite', are of relatively little importance in export shares to the EU. Most markedly is the first entry for garments which occupies 6.46% of total exports but only 0.12% of exports to the EU. Here Jordan holds both a strong global comparative advantage and also has a bilateral comparative advantage in the EU. This a priori implies that Jordan's export share in the EU is higher than the average share of world imports of the EU in this category which suggest relatively strong market access into the EU. However, looking at the RMA indicators there is evidence that Jordan should be exporting more of this product to the EU given both the economic mass of this market and taking into account exports to the rest of the world. In contrast we consider the 'Carnallite' sector (HS 310410), here Jordan holds a very strong comparative advantage and has a strong market presence in the EU relative to other partners, but there is still evidence that Jordan's exports in this product fall short of their potential, as suggested by the RMA2 in this sector. In fact all RMA2's for the EU market are below 1 implying that the latter proposition seems to hold for all of Jordan's top exports. The reason for this shortfall is apparent from earlier analysis which saw that the share of exports to the EU in total exports is but 3%. Given the EU's proximity and economic mass, Jordan exports a surprisingly little amount to this market. In terms of access to other MED partner markets, besides medicaments, jewellery, tomatoes and aluminium casks, most products have relatively little revealed market access in the region. Turning to IIT indicators, Jordan has strong links with the world but these are low with the EU and MED partners. IIT is highest with the EU in Garments, Jewellery and aluminium casks, but remains fairly low. With respect to MED partners, we see strong IIT in Garments and Jewellery.

Table 38: Jordan Top 15 exports to the World 2006

HS Code	product description	export share Wld	Export Share EU	Export Share MED	RCA	BRCA EU	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
611490	Of other textile materials (other Garments)	6.46%	0.12%	0.18%	779.75	46.97	9.84	0.06	0.01	0.00	0.32	0.10	0.48	0.88
310410	Carnallite, sylvite and other crude	6.24%	20.19%	1.46%	2559.55	30044.91	494.44	11.74	0.19	0.36	2.67	0.00	0.00	0.00
300490	Other (medicaments)	5.17%	4.41%	8.62%	2.98	1.70	5.68	0.57	1.90	0.10	19.11	0.96	0.10	0.13
711319	Of precious metal (jewellery)	4.65%	11.97%	4.78%	16.77	91.52	13.86	5.46	0.83	0.29	11.78	0.73	0.35	0.80
310290	Other, including mixtures (nitrogenous fertilizers)	4.33%	0.00%	0.06%	1528.68	0.00	89.47	0.00	0.06	0.00	0.15	0.00	0.00	0.00
620459	Skirts and divided skirts :-- Of ot	4.28%	0.43%	0.41%	307.28	23.87	66.49	0.08	0.22	0.01	1.09	0.00	0.00	0.00
251010	Unground (natural Calcium Phosphates)	3.89%	11.16%	0.07%	505.11	2304.54	15.48	4.56	0.03	0.32	0.22	0.00	0.00	0.00
611020	Of cotton (Jerseys, Pullovers)	3.08%	1.41%	0.00%	25.89	11.04	0.08	0.43	0.00	0.05	0.02	0.00	0.01	0.00
610690	Of other textile materials (Women's Blouses)	2.67%	0.04%	0.00%	428.22	8.76	0.00	0.02	0.00	0.00	0.00	0.00	0.03	0.00
070200	Tomatoes, fresh or chilled.	2.50%	0.75%	4.30%	48.99	10.15	218.33	0.21	4.46	0.03	19.73	0.00	0.00	0.00
280920	Phosphoric acid and polyphosphoric	2.43%	0.01%	0.20%	108.63	0.79	8.60	0.01	0.08	0.00	0.95	0.00	0.20	0.01
761290	Other (aluminium Casks)	1.90%	0.17%	3.89%	64.49	4.22	68.82	0.07	1.07	0.01	23.44	0.07	0.35	0.12
300390	Other (medicaments)	1.81%	0.15%	7.67%	42.62	3.71	130.24	0.09	3.06	0.01	48.64	0.22	0.07	0.02
151620	Vegetable fats and oils	1.64%	0.00%	0.07%	63.75	0.00	1.23	0.00	0.02	0.00	0.47	0.17	0.00	0.30
240290	Other (cigars, cigarettes)	1.49%	0.00%	0.36%	1246.69	0.00	488.51	0.00	0.39	0.00	2.73	0.02	0.00	0.00
	Total	52.54%	50.81%	32.07%										
	Average				515.29	2170.15	107.40	1.55	0.82	0.08	8.76	0.15	0.11	0.15

Source: Own calculations; Comtrade

In terms of top exports to other Mediterranean partners, Table 39 identifies medicaments as the sector with the highest share (16.3% of total exports to these partners) with Jewellery, tomatoes, underpants and aluminium casks closely following. Top exports follow global RCAs and market access into the region appears to be relatively good but IIT in the region remains low. This table, in contrast with Table 38, also highlights differences across top exports according to destination which could be driven by differences in demand rather than market access issues.

Table 39: Jordan Top 15 exports to Mediterranean Partners 2006

HS Code	product description	export share MED	Export Share EU	RCA	BRCA MED	RMA1 MED	RMA2 MED	IIT MED
300490	Other (medicaments)	8.62%	4.41%	2.98	5.68	1.90	19.11	0.13
300390	Other (medicaments)	7.67%	0.15%	42.62	130.24	3.06	48.64	0.02
711319	Of precious metal (jewellery)	4.78%	11.97%	16.77	13.86	0.83	11.78	0.80
070200	Tomatoes, fresh or chilled.	4.30%	0.75%	48.99	218.33	4.46	19.73	0.00
610711	Underpants and briefs :-- Of cotton	3.95%	0.00%	32.35	184.91	5.72	83.61	0.02
761290	Other (aluminium casks)	3.89%	0.17%	64.49	68.82	1.07	23.44	0.12
070700	Cucumbers and gherkins	3.18%	0.76%	65.68	494.78	7.53	35.79	0.00
611300	Garments, made up of knitted or cro	2.60%	0.00%	81.30	379.55	4.67	87.13	0.00
845012	Machines, each of a dry linen capac	1.97%	0.00%	40.92	85.72	2.10	83.26	0.02
760410	Of aluminium, not alloyed	1.76%	3.25%	21.68	50.67	2.34	57.20	0.10
070930	Aubergines (egg-plants)	1.59%	0.03%	147.59	491.79	3.33	47.42	0.00
611420	Of cotton (other garments)	1.56%	0.03%	137.00	183.85	1.34	12.41	0.09
481810	Toilet paper	1.52%	0.00%	12.54	233.93	18.66	59.14	0.15
310410	Carnallite, sylvite and other crude	1.46%	20.19%	2559.55	494.44	0.19	2.67	0.00
852812	Reception apparatus for television,	1.40%	0.00%	0.60	4.87	8.10	47.88	0.26
	Total	50.24%	41.71%					
	Average			218.34	202.76	4.35	42.61	0.11

Source: Own calculations; Comtrade

6.5 MOROCCO

Morocco's bilateral track record starts with the conclusion of the PAFTA agreement in 1998 and is followed by the Association Agreement with the EU which entered into force in 2000. More recently, Morocco has signed agreements with the US and Turkey (both entered into force in 2006). In terms of exports, Table 7 showed that 74.4% of total exports saw the EU as destination whilst exports to other MED partners represented but 3% of total exports. In terms of imports, the EU continues to dominate as a preferred source but with a little less prominence holding 56.14% of total exports. In this respect, the EU appears to be Morocco's natural trading partner and these high levels of trade may have been enhanced as a result of the AA signed in 2000. Top exports to the world as per Table 40 sees phosphoric acid as Morocco's main export taking a share of 7.94% of total exports. Where this share in exports to the EU stands at 2.98% there is evidence, from the RMA indicators, that Morocco's revealed market access to the EU maybe lower that what could be predicted by economic mass or the strong global comparative advantage enjoyed. The T&C sector is also represented in the top 15 exports with 'trousers', 'T-shirts' and 'Woman's blouses' taking over 8.4% of total exports and where evidence points to there being strong market access to the EU. These export's performance in the MED markets appear to me much lower and evidence suggests that there is little revealed market access for these products in the region. This could be due to different preferences but it could also be the case that there is a strong 'home market bias' in action as MED partners are also strong

producers of similar goods. Table 40 also identifies other manufactured products such as ‘semiconductors’ and ‘insulated wire’ as well as some chemical products and fish products showing strong export shares to the world. We can highlight the ‘semiconductor’ sector as one that has strong access to the EU taking 7.73% of exports to the EU and showing strong revealed market access. In contrast the ‘Phosphoric acid’ sector which is the largest in terms of export shares to the world and which shows a global comparative advantage appears to have little presence in the EU market even though it has more presence in this market than the world average. Both RMAs suggest that Morocco should be trading more of this good in the EU market. This conclusion can similarly be extended to another phosphate sector such as ‘unground calcium phosphate’. In terms of IIT, values are high with respect to the world, the EU and other MED partners in ‘insulated wire’ and with respect to the EU and the world in ‘semiconductors’.

Table 40: Morocco Top 15 exports to the World 2006

HS Code	product description	export share Wld	Export Share EU	Export Share MED	RCA	BRCA EU	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
280920	Phosphoric acid and polyphosphoric	7.94%	2.98%	6.74%	354.55	180.65	288.68	0.51	0.81	0.89	2.70	0.01	0.02	0.00
854129	Transistors, other than photosensit (semiconductors)	5.63%	7.73%	0.00%	40.71	127.32	0.00	3.13	0.00	3.28	0.00	0.62	0.53	
251010	Unground (calcium Phosphates)	4.35%	1.69%	2.74%	565.44	349.34	577.62	0.62	1.02	0.93	2.01	0.00	0.00	0.00
620462	Trousers, bib and brace overalls, b	2.73%	3.73%	0.00%	18.91	22.89	0.03	1.21	0.00	3.26	0.00	0.04	0.03	0.04
620342	Trousers, bib and brace overalls, b	2.64%	3.48%	0.25%	17.59	17.90	2.72	1.02	0.15	3.14	0.30	0.02	0.01	0.53
854441	Other electric conductors, (insulated wire)	2.50%	3.41%	0.11%	38.85	39.43	2.33	1.02	0.06	3.25	0.14	0.88	0.86	0.85
160413	Fish, whole or in pieces,	2.45%	1.36%	8.72%	353.66	225.06	503.55	0.64	1.42	1.33	11.32	0.00	0.00	0.00
854449	Other electric conductors, (insulated wire)	2.43%	3.20%	0.32%	44.07	63.21	4.70	1.43	0.11	3.14	0.42	0.21	0.22	0.08
030759	Octopus (Octopus spp.) :-- Other	2.01%	2.28%	0.04%	264.97	198.52	105.46	0.75	0.40	2.71	0.07	0.01	0.00	0.48
310530	Diammonium hydrogenorthophosphate	1.91%	0.78%	0.00%	136.51	72.10	0.00	0.53	0.00	0.97	0.00	0.00	0.00	
270750	Other aromatic hydrocarbon mixtures	1.91%	1.53%	0.00%	41.17	24.64	0.01	0.60	0.00	1.91	0.00	0.01	0.02	0.00
271000	Petroleum oils and oils obtained fr	1.82%	1.35%	4.77%	0.47	0.39	0.98	0.84	2.10	1.76	8.34	0.41	0.27	0.89
610910	Of cotton (T-shirts)	1.62%	2.19%	0.00%	8.39	8.34	0.03	0.99	0.00	3.23	0.01	0.46	0.22	0.04
620630	Of cotton (Women's Blouses)	1.44%	1.98%	0.00%	35.49	37.72	0.06	1.06	0.00	3.27	0.00	0.02	0.01	0.28
310540	Ammonium dihydrogenorthophosphate	1.25%	0.48%	0.12%	163.62	72.18	8.96	0.44	0.05	0.91	0.31	0.01	0.00	0.00
	Total	42.65%	38.18%	23.82%										
	Average				138.96	95.98	99.68	0.99	0.41	2.26	1.71	0.18	0.15	0.24

Source: Own calculations; Comtrade

Where top 15 exports to the MED region are concerned, Table 41 shows a strong concentration of Morocco's exports sectors representing over 70% of total exports to the region. Most of these sectors have a global comparative advantage, a strong regional comparative advantage and boast strong market access. The top export sector is the 'flat rolled products of iron and steel coated with zinc' but agricultural goods such as fish and processed cheese also represent strong shares in the MED market. Looking at the share of these sectors in total exports to the EU there is evidence that Morocco exports significantly different products to the MED region. Considering IIT levels, these tend to be low except for the petroleum sector.

Table 41: Morocco Top 15 exports to Mediterranean Partners 2006

HS Code	product description	export share MED	Export Share EU	RCA	BRCA MED	RMA1 MED	RMA2 MED	IIT MED
721049	coated with zinc (flat rolled prods of iron/steel)	9.28%	0.35%	5.17	54.19	10.49	36.15	0.02
160413	Fish, whole or in pieces, but not m	8.72%	1.36%	353.66	503.55	1.42	11.32	0.00
040630	Processed cheese, not grated or pow	7.85%	0.00%	46.23	205.56	4.45	32.23	0.00
470329	Semi-bleached or bleached (Chemical wood pulp)	7.32%	0.23%	5.94	114.36	19.24	53.11	0.00
280920	Phosphoric acid and polyphosphoric	6.74%	2.98%	354.55	288.68	0.81	2.70	0.00
853590	Other (elec app. For switching electrical currents)	5.94%	0.95%	32.69	123.60	3.78	20.78	0.01
271000	Petroleum oils and oils obtained fr	4.77%	1.35%	0.47	0.98	2.10	8.34	0.89
210111	Extracts, essences and concentrates	3.59%	0.02%	6.27	116.35	18.55	66.88	0.00
721070	Painted, varnished or coated with p	3.35%	0.22%	5.94	46.88	7.89	33.55	0.00
251010	Unground (natural calcium phosphates)	2.74%	1.69%	565.44	577.62	1.02	2.01	0.00
720449	Other waste and scrap (ferrous waste)	2.60%	0.13%	1.41	2.19	1.56	42.35	0.22
340220	Preparations for retail sale (soap)	2.49%	0.00%	1.48	43.83	29.58	63.62	0.02
030371	Other fish, excluding livers and ro	2.35%	0.06%	117.90	465.84	3.95	29.25	0.00
780110	Refined lead	2.03%	0.45%	18.02	52.26	2.90	16.20	0.01
721499	Other (bars/rods of iron/steel)	1.52%	0.00%	2.69	48.92	18.20	74.46	0.38
	Total	71.30%	9.80%					
	Average			101.19	176.32	8.40	32.86	0.10

Source: Own calculations; Comtrade

6.6 TUNISIA

Tunisia was one of the first countries in the region to sign an Association Agreement with the EU in 1998, year which also saw the creation of PAFTA of which Tunisia is a signatory. Other bilateral agreements where recently put into force with EFTA and with Turkey in 2005. Where trade flows are concerned, Tunisia has the EU as preferred destination and origin of trade with 83% and 69% of exports/imports respectively. This suggests that the EU is Tunisia's 'natural trading partner' and hence that the N-S agreement is likely to have been generally trade creating. Where trade with other MED partners is concerned, Tunisia exports just under 7% of its total exports to the region and imports a share of 7.64% of total imports from MED partners. In terms of growth rates of trade, Tunisia saw a yearly growth rate of exports to the EU of over 8% with imports growing at a slower rate of 5.74%. Exports to other MED partners grew at a yearly rate of 10% whilst imports from the MED region grew at 9.1% annually. Where these growth rates are high, they continue to reflect low levels of trade. Table 42 then ranks Tunisia's top 15 exports to the world according to decreasing share for the year 2006. Concentration is mainly in T&C and footwear sectors of which there are 7 appearances in the Top 15 table. These sectors

represent 15.6% of total exports, just under 20% of exports to the EU and only 0.36% of exports to other MED partners. Tunisia has very strong global RCAs in these sectors which are matched bilaterally in the EU market and where there is evidence that RMA2's are high. This suggests that Tunisia exports more of these goods to the EU market than what would be suggested by gravity type variables. In terms of RMA1 we see a mixed performance where these are below one in 'other garments' and in the footwear sectors which implies that the RCA enjoyed globally is higher than the bilateral RCA. Performance of these sectors with respect to other MED partners is mixed but remains comparatively low where the only sector which shows signs of strong market access is the footwear sector. 'Virgin olive oil' also appears as a top export for Tunisia and one that has strong market presence and access to the EU. Tunisia's top export sector is 'petroleum oils' which occupies over 10% of total exports, and 11.75% of exports to the EU. Several manufacturing sectors also appear in the form of 'electrical apparatus for switching' and 'other electric conductors. These sectors also see a strong share in the EU market and equally show strong market access to the EU. Considering IIT levels, the former sector shows high values with all partners considered. Most other top exports see very low or inexistent IIT with the EU but some sectors show higher IIT levels with the MED region such as 'T-shirts' and 'virgin olive oil'.

Table 42: Tunisia Top 15 exports to the World 2006

HS Code	product description	export share Wld	Export Share EU	Export Share MED	RCA	BRCA EU	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
270900	Petroleum oils and oils obtained fr	10.05%	11.75%	0.18%	1.47	2.17	0.05	1.48	0.03	2.95	0.15	0.62	0.00	0.01
620342	Trousers, bib and brace overalls, b	5.37%	6.82%	0.13%	35.72	35.12	1.42	0.98	0.04	3.21	0.20	0.03	0.02	0.60
150910	Virgin (Olive Oil)	5.15%	6.09%	0.12%	125.09	81.56	22.46	0.65	0.18	2.99	0.19	0.01	0.00	0.81
271000	Petroleum oils and oils obtained fr	2.93%	0.99%	1.95%	0.75	0.29	0.40	0.38	0.53	0.86	5.58	0.42	0.22	0.27
621139	Other garments, men's or boys' :--	2.81%	3.62%	0.01%	639.11	418.07	14.80	0.65	0.02	3.26	0.03	0.11	0.11	0.22
310530	Diammonium hydrogenorthophosphate	2.50%	1.22%	9.23%	178.40	112.38	181.36	0.63	1.02	1.23	30.88	0.00	0.00	0.00
853690	Other apparatus (elec app. For switching electrical currents)	2.30%	2.94%	0.03%	9.92	16.32	0.11	1.64	0.01	3.23	0.13	0.99	0.93	0.75
854441	Other electric conductors, for a vo	2.21%	2.85%	0.00%	34.28	32.98	0.05	0.96	0.00	3.27	0.01	0.05	0.04	0.23
280920	Phosphoric acid and polyphosphoric	2.04%	0.51%	0.45%	91.08	30.66	19.36	0.34	0.21	0.63	1.86	0.16	0.02	0.00
620462	Trousers, bib and brace overalls, b	1.69%	2.18%	0.00%	11.70	13.38	0.02	1.14	0.00	3.27	0.00	0.08	0.07	0.06
610910	Of cotton (T-Shirts)	1.60%	2.06%	0.03%	8.31	7.85	0.28	0.95	0.03	3.26	0.18	0.27	0.24	0.94
621210	BrassiSres	1.42%	1.84%	0.00%	25.13	30.58	0.03	1.22	0.00	3.27	0.01	0.30	0.29	0.37
640391	Other footwear :-- Covering the ank	1.36%	1.72%	0.19%	30.86	21.46	17.82	0.70	0.58	3.21	1.20	0.01	0.00	0.00
640610	Uppers and parts thereof, other tha	1.34%	1.73%	0.00%	61.38	50.30	0.08	0.82	0.00	3.27	0.02	0.29	0.23	0.17
310310	Superphosphates	1.29%	0.35%	0.36%	197.48	96.41	153.28	0.49	0.78	0.69	2.33	0.00	0.00	0.00
	Total	44.05%	46.69%	12.70%										
	Average				96.71	63.30	27.43	0.87	0.23	2.57	2.85	0.22	0.14	0.30

Source: Own calculations; Comtrade

Considering top exports to the MED region, Table 43 shows a very different composition of top exports to that reported in Table 42. Earlier we identified 7 sectors engaged in T&C or footwear which saw strong comparative advantages, here these do not appear as important exports to MED countries. As earlier posited, it is possible that Tunisia is competing with other MED countries in these exports and hence this is not necessarily a sign of market access impediments. Table 43 sees that the top export sector to the region is 'maize oils', sector which has a strong global comparative advantage and which occupies 10% of total exports to the region. This product is not exported to the EU. Other important export sectors to the region include 'fertilizers', 'inorganic chemicals', 'portland cement' and agricultural goods such as 'cheese' and dates. Intra-Industry trade in these top sectors is very low.

Table 43: Tunisia Top 15 exports to Mediterranean Partners 2006

HS Code	product description	export share MED	Export Share EU	RCA	BRCA MED	RMA1 MED	RMA2 MED	IIT MED
151529	Maize (corn) oil and its fractions	10.31%	0.00%	206.78	118.64	0.57	87.13	0.00
310530	Diammonium hydrogenorthophosphate (	9.23%	1.22%	178.40	181.36	1.02	30.88	0.00
283531	Polyphosphates:-- Sodium triphospha	4.89%	0.01%	88.49	109.99	1.24	63.80	0.00
252329	Portland cement :-- Other	4.29%	0.12%	10.78	86.11	7.99	67.96	0.00
481840	Sanitary towels and tampons, napkin	3.37%	0.00%	5.51	39.71	7.21	68.27	0.08
200290	Other (prepared tomatoes)	2.48%	0.01%	15.50	75.92	4.90	84.12	0.00
271000	Petroleum oils and oils obtained fr	1.95%	0.99%	0.75	0.40	0.53	5.58	0.27
080410	Dates	1.84%	0.60%	203.02	131.45	0.65	20.53	0.00
690890	Other (glazed ceramic tiles)	1.62%	0.11%	3.45	13.26	3.85	47.00	0.02
040630	Processed cheese, not grated or pow	1.46%	0.00%	8.45	38.15	4.52	86.12	0.13
180632	Other, in blocks, slabs or bars (chocolate)	1.42%	0.00%	6.82	55.29	8.10	84.95	0.01
730890	Other (structures)	1.32%	0.09%	1.14	8.10	7.11	53.34	0.01
190219	Uncooked pasta, not stuffed or othe	1.30%	0.00%	11.47	54.86	4.78	52.17	0.00
252321	Portland cement :-- White cement, w	1.23%	0.01%	35.27	67.99	1.93	69.50	0.00
871639	Other trailers and semi-trailers fo	1.13%	0.02%	1.80	21.74	12.07	74.68	0.01
	Total	47.85%	3.19%					
	Average			51.84	66.86	4.43	59.74	0.04

Source: Own calculations; Comtrade

7 DEEP MARKET INTEGRATION

In this section we consider the degree of existing intra-industry trade (IIT) as we believe that it can serve as an indicator of the nature and extent of actual and possible deep integration. Traditional trade theory suggests that trade is driven by comparative advantages and hence that countries specialise and trade across industries. On the other hand, new trade theory posits that product differentiation can lead to niche specialisation and cause trade to occur within industries. Economists often argue that FTAs between regions engaging in intra-industry based trade are likely to be more welfare enhancing than those who trade on an inter-industry level. This is because intra-industry trade can have important pro-competitive effects through increased competition. This in turn can reduce x-inefficiency and promote niche specialisation. This type of specialisation promotes learning by doing and can attract FDI flows. It is not uncommon to see that the regions which are most deeply integrated are the ones where IIT levels are highest. Leaving causality issues aside, we can use existing levels of IIT as indicators of the degree of deep integration that is currently taking place between bilateral partners, where

we can look at how these have been evolving to determine what the scope for future deep integration can be.

Empirically, we capture intra-industry trade by way of IIT indicators as developed by Grubel and Lloyd (1975)[23]. These capture the share of trade overlap within a chosen category and are highly sensitive to the degree of aggregation used. As an example, when we consider the overlap in total trade between two countries, the IIT indicator tells us the degree of trade deficit/surplus with respect to that country. Moving towards finer levels of disaggregation then allows us to investigate differences across industries and thereafter product at the highest level of disaggregation. In this section, we calculate IIT indicators at the 6-digit level which identifies over 5000 different products. At this level of aggregation we are closer to capturing product differentiation and hence niche specialisation. It is also possible that at this level of aggregation we capture some form of vertical specialisation, however we make no attempt at differentiating horizontal or vertical IIT given data shortcomings.

Table 44 looks at the degree and evolution of IIT in the MED5 countries with respect to the world and also the EU from 1996 to 2006. With regards to the world, there is evidence of important increases in IIT levels for all MED5 countries, most markedly for Egypt and Jordan. These rising levels of IIT could imply closer integration of these countries to the world economy and could be signs of grassroots of niche specialisation. Levels of IIT remain relatively low for all MED5 countries except for Israel. When looking at IIT with the EU a similar picture emerges in terms of increases of IIT for most countries except for Jordan. Levels of IIT with the EU remain lower than those reported for the world, but there is evidence of some form of deeper integration taking place.

Table 44: MED5 weighted average IIT with the World and the EU 1996-2006

	World					
	1996	**1998**	**2000**	**2002**	**2004**	**2006**
Egypt	0.056	0.067	0.098	0.122	0.130	0.202
Israel	0.310	0.357	0.385	0.429	0.427	0.444
Jordan	0.040	0.063	0.113	0.120	0.126	0.111
Morocco	0.082	0.101	0.122	0.134	0.158	0.142
Tunisia	0.154	0.180	0.166	0.188	0.196	0.224
	EU					
	1996	**1998**	**2000**	**2002**	**2004**	**2006**
Egypt	0.054	0.060	0.080	0.070	0.075	0.090

[23] The classical measure of IIT was introduced by Grubel-Lloyd (1975) and bears the authors names; G-L index. The latter measures the overlap of imports and exports at a given aggregation level. The G-L index is calculated as follows:

$$G - L_{ijk} = 1 - \frac{| X_{ijk} - M_{ijk} |}{(X_{ijk} + M_{ijk})}$$

Where X_{ijk} is exports from country i to country j of commodity k, M is imports with the same subscript. *k* is defined at the level of aggregation. The index range sin value form 0 (no IIT) to 1 (all trade IIT).

Israel	0.293	0.335	0.370	0.400	0.414	0.398
Jordan	0.038	0.047	0.055	0.063	0.054	0.047
Morocco	0.090	0.110	0.119	0.125	0.137	0.129
Tunisia	0.156	0.161	0.172	0.191	0.190	0.207

Source: Own calculations, Comtrade (mirror flows)

Where Table 44 looked at IIT with the world and the EU, Table 45 considers the levels and evolution of IIT across MED5 partners. Here there are many missing entries which is due to the poor quality of data available however a clear pattern emerges. IIT levels across these partners are very low. In 1996, Israel had no tariff lines where there was simultaneous exports and imports from Morocco or Tunisia. All other values for this year are so low that they are near negligible. However, what can be said is that there is clear evidence that IIT is picking up across these partners in 2006 but again, the levels remain so small that this indicates that there is virtually no deep integration taking palace across the MED5 partners.

Table 45: IIT Between MED5 countries 1996, 2000 and 2006

			1996		
	Egypt	**Israel**	**Jordan**	**Morocco**	**Tunisia**
Egypt					
Israel	0.0246				
Jordan		0.0282			
Morocco		0.000	0.001*		
Tunisia		0.000	0.0002*	0.001*	
			2000		
	Egypt	**Israel**	**Jordan**	**Morocco**	**Tunisia**
Egypt					
Israel	0.0197				
Jordan	0.0408	0.0352			
Morocco	0.0124#	0.000	0.0026		
Tunisia	0.0042	0.000	0.001	0.0227	
			2006		
	Egypt	**Israel**	**Jordan**	**Morocco**	**Tunisia**
Egypt					
Israel	0.0695				
Jordan	0.032	0.0252			
Morocco	0.0353	0.001	0.004		
Tunisia	0.058	0.000	0.0405	0.0389	

Source: Own calculations, Comtrade
* values for 1998
# values for 2002

The findings in this section are to be contrasted with those from previous sections. In section 5.2 we saw how export structures across MED partners were becoming more similar in time but how these remained highly dissimilar. This dissimilarity may be reflected in low levels of IIT as reported above. However, from section 5.2 we saw how Morocco and Tunisia had relatively similar exporting structures but Table 45 suggests that potential intra-industry similarities are not currently being exploited. It can be suggested that through a deeper agreement between these partners these similarities in exporting structures may allow these two countries to increasingly trade on a more intra-

industry level. This may also hold for many other country pairs where the current high levels of protection are impeding further increases in intra industry trade.

8 INVESTMENT

8.1 THEORETICAL BACKGROUND

An extensive literature review undertaken by Blonigen (2005) identified the main determinants of FDI flows as being exchange rates, taxes, institutions, factor endowments and trade protection. Where we are unable to control for some of these characteristics a certain set of assumptions are necessary to proceed with the analysis looking at the possible effects of preferential liberalisation on investment flows. Firstly, we assume that a bilateral trade agreement has little to no impact on the underlying investment motivations of third countries. Where this entails that there is no substitution (or displacement) between preferential partner investment and non-preferential partner investment flows. Secondly, we discount the institutional effect that may arise from enhanced technical assistance in institutional capacity building as a result of the development packages offered in the Association Agreement. This is not unreasonable as the infrastructure created will be beneficial to both preferential and non-preferential partners. Thirdly, and as a result of our other assumption, we assume that the only effect on FDI flows across preferential partners occurs through the interplay of trade (protection) and investment flows as either substitutes or complements.

The literature on FDI differentiates between horizontal and vertical FDI. The former occurs when firms invest in a target market so as to service that market from foreign affiliate production. This generally happens under the presence of particularly restrictive market access barriers which imply that it is not cost-effective to service markets through trade. In this instance, FDI is known to be 'market seeking' and the removal of tariff measures on a preferential basis is likely to translate into a substitution of FDI flows for exports. On the other hand, vertical FDI has different motives which relate to production. Vertical FDI seeks 'production platforms' in different countries to take advantage of, for example, factor endowment differentials as a cost reducing strategy. In this instance, FDI is associated with 'production platforms' and the relationship between trade and FDI as a result of the removal of tariff barriers should become positive. This is because removal of tariffs should motivate increased trade in intermediates between parent and the sister companies located in different countries and also stimulate FDI flows as production delocalises. These new trade links with a country should also lead to welfare enhancing trade creation as previously unused trade channels are being created[24].

One of the problems encountered in assessing which type of FDI dominates is that empirically, data on FDI does not differentiate by type. To overcome this shortcoming we propose to use RCA indicators. If FDI flows are primarily directed towards sectors with

[24] Yi (2003) goes as far as saying that reduction in tariffs leads to an important magnification of trade when there is vertical specialisation as the tariffs are waived in entry to both markets and hence the impact of removing tariffs on trade is enhanced

low RCAs, then it is conceivable that FDI is of a market seeking horizontal nature. Conversely, if FDI is directed towards sectors showing a strong comparative advantage, then it can be argued that FDI is seeking production platforms and hence is of the vertical variety. Another problem that will be encountered is that the nature of the FDI flow also affects the volume of FDI. Intuitively it makes sense to think of full delocalisation of production, such as that seen in horizontal FDI, to be higher in terms of cost than partial delocalisation of production (as in vertical FDI). Given that reduction in tariff barriers to trade may motivate increased vertical FDI substituting horizontal FDI, it is likely that overall FDI flows will fall. In this instance, this fall in FDI may still be welfare enhancing.

In this section, we focus firstly on the evolution of aggregate FDI flows into the MED5 countries from both the world and other main partners. Secondly, we try to identify the relationship between natural trading partners as exposed earlier in this chapter, and natural investment partners. Thirdly, and data permitting, we look at a more disaggregated dataset where we look at sectoral investment flows and try to determine if flows predominantly go to sectors where there are comparative advantages or not. This should allow us to differentiate across types of FDI and hence to infer how a preferential agreement will affect trade and investment.

8.2 AGGREGATE FDI FLOWS

We start by looking at the evolution of aggregate FDI flows of the MED5 countries. The left panel of Table 46 shows a growing attraction of FDI flows into the region with Israel as preferred destination followed by Egypt. In terms of the right panel which shows FDI outflow to the world we see that MED5 countries are increasingly investing abroad albeit at low levels. In particular the entry for Jordan in 2006 is negative which could possible reflect an inward flow of money from a sister firm towards a parent firm located in Jordan.

Table 46: Evolution of FDI inflows 1996-2005

	Inflows					Outflows				
	Egypt	Israel	Jordan	Morocco	Tunisia	Egypt	Israel	Jordan	Morocco	Tunisia
1996	636.4			322	351.1	4.9			28	2.4
1997	886.9			1,207.2	365.3	165.9			8.8	9.2
1998	1,075.50			460.3	668.1	45.5			24.5	1.8
1999	1,065.30			1,638.7	367.9	37.5			22.3	2.5
2000	1,235.40			470.6	778.8	51.2			59.7	0.4
2001	509.9			2,874.8	486.4	12.4			100.3	5.8
2002	646.9			533.8	821.3	27.8			53.7	6.5
2003	237.4			2,429.1	583.9	20.7			19.9	5.4
2004	2,157.40	2,002	816	1,069.8	638.9	158.9	4,547	18	31.8	4.2
2005	5,375.60	4,881	1,774	2,933.2	782.4	92	2,968	163	173.8	12.6
2006		14,729	3,219				15,078	-138		
Annual growth	9.84%	171.24%	98.62%		7.80%	12.78%	82.10%		18.16%	13.21%

Source: UNCTAD FDI database

Where the above table considers levels and growth of FDI, we have no direct way of knowing if these are comparatively high or low. Are these regions under or over performing? To answer this question we calculate the inward FDI performance indicator developed by UNCTAD where it is hypothesised that, like trade flows, investment follows economic mass. Thus a country's share of total investment inflows/stock should be proportionate to the country's share of world GDP so that.

$$INV = \frac{\left(\frac{FDI_{i,x}}{\sum_x FDI_{i,x}}\right)}{\left(\frac{GDP_{i,x}}{\sum_x GDP_{i,x}}\right)}$$

Where *FDI* are investment inflows or stocks and *x* is the country under investigation. The numerator tells us the share of say Jordan's inflows of FDI as a proportion of world FDI inflows whilst the denominator shows the share of Jordan's GDP in world GDP. An INV indicator above 1 tells us that the inflows of FDI are above the country's share of world GDP and hence suggest that the countries investment performance is positive. Where the INV indicator is below 1, this could indicate that the country in question is not attracting as much investment as would be suggested by its economic mass. Table 47 reports the INV indicator calculated for both inflows and stocks. In both instances the INV indicator is above 1 for all focus countries suggesting that the MED5 countries are good performers in attracting investment.

Table 47: Inward FDI performance Indicator

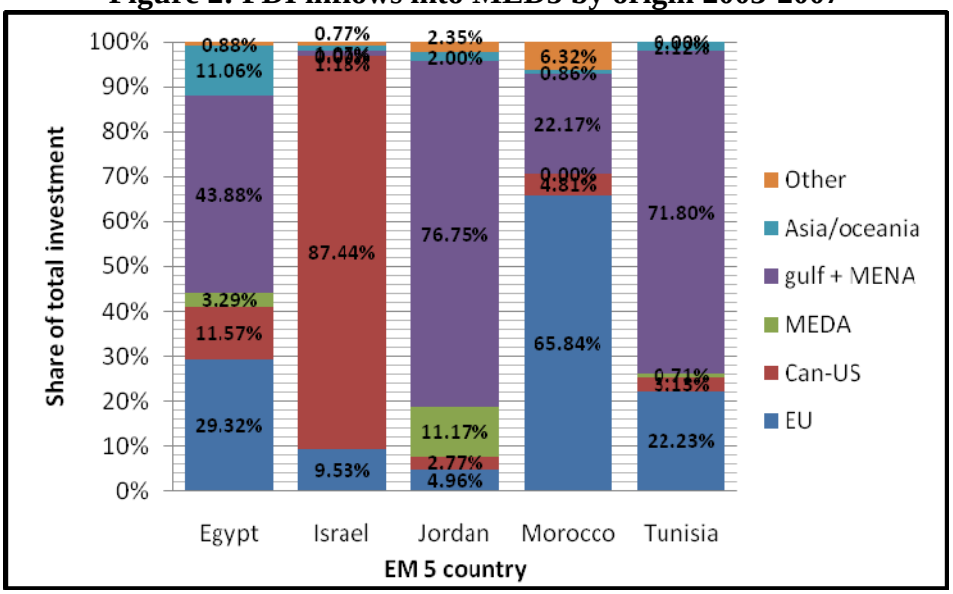
	Egypt	Israel	Jordan	Morocco	Tunisia
INV (inflows) 2005	2.763	1.816	6.410	2.609	1.253
INV (stock) 2006	1.538	1.098	3.531	2.048	2.690

Source: Own calculations UNCTAD FDI database

Figure 2 then looks at the origin of FDI flows where we delimit origin into 6 different regions[25]. Here we see a fairly heterogeneous distribution of FDI inflows according to origin where the EU is the most important partner only for Morocco whilst the US/CAN is the largest investor in Israel. In the case of Jordan, Egypt and Tunisia most investment inflows come from Gulf countries. Thus in terms of 'natural investment partners' the relationship is not as clear cut as that depicted in the 'natural trading partner' analysis of previous sections. These results could be driven by difference in the nature of FDI across origins.

[25] MEDA: Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia and Turkey
Gulf/MENA: Saudi Arabia, Bahrain, U.A.E., Kuwait, Qatar and MENA
Asia/Oceania: Australia, China, Korea, India, Japan, Malaysia and other Asian.
Other: Brazil, Russia, South Africa and others

Figure 2: FDI inflows into MED5 by origin 2003-2007



Source: ANIMA (2008), own calculations

Analysis on the amount of projects undertaken in the region (whole of MED; ANIMA (2008)) show that in terms of FDI projects undertaken, the EU is the largest player with 48% of the total number of projects undertaken in the region. This could be a sign of the different nature of FDI projects depending on origin of the flow where it could be hypothesised that Gulf country FDI could be predominantly horizontal in nature whilst EU FDI may be more of a vertical variety[26]. The implications of which, as earlier stated, are that removal of tariff barriers to trade could increase the levels of FDI from the EU and also bring about some trade creation.

Where the INV indicator focused on total investment inflows as a proportion of total GDP, we now focus on EU investment in the region[27]. In Table 48 we look at a modified INV indicator which considers FDI flows and stocks of the EU into a destination economy. The analysis is similar to that undertaken for trade section by way of the RMA2 indicator where but here we replace trade flows by investment flows. The rationale continues to be that FDI outflows of the EU to a country should be equal to FDI flows to the rest of the world after these are normalised by GDP.

$$INV2_{j,k} = \left(\frac{FDIx_j^k}{FDIx_j^{RoW}} \right) \left(\frac{GDP_{RoW}}{GDP_k} \right)$$

[26] The high share of total projects undertaken and the lower share of value may suggest that EU FDI could be predominantly vertical in nature whilst the opposite situation for the GCC may indicate predominantly horizontal FDI from the GCC.

[27] Given data constraints we are only able to singularly identify 3 of our 5 focus countries.

Where $FDIx^{k}$ is an investment outflow from country *j* (the EU) to country *k* (e.g. Turkey) and $FDIx^{RoW}$ are outflows to the rest of the world. An INV2 indicator above 1 tells us that FDI flows to Turkey are higher than flows to rest of the world after normalising by GDP. It then suggests that the EU invests relatively more in this economy than what would be suggested by the size of the market. Alternatively, we also look at FDI stocks in a similar fashion, this is because where flows tell us how much is being added to a pile of investment, we do not know how big that pile of investment is. Looking at stock data allows us to grasp the relative size of investment stock from the EU in a destination country as compared to that in the rest of the world. The upper panel of Table 48 shows a relatively irregular evolution of INV2 in time[28]. Overall, Turkey, Egypt, Morocco and the MED region show a positive INV2 implying that EU flows to these countries are higher than what would be suggested by their relative economic size. In the case of Israel, there appears to be a shortfall in FDI flows from the EU as reflected by an INV2 below 1. The bottom panel of Table 48 shows the presence of important investment stocks in Egypt and Morocco which have grown in time. This is not unusual as the INV2 indicator for investment flows for these countries was above average. It suggests that there is an important EU investor preference for these markets. What is interesting comparing flows and stocks is that previously flows to Turkey showed a positive INV2, but the stocks in Turkey show an INV2 below 1. This suggests that where flows to Turkey are greater than would be predicted the current stock of investment in the country is very small.

Table 48: EU INV2 in MED countries 2001 - 2007

Flows								
	2001	2002	2003	2004	2005	2006	2007	Average INV2
Turkey	1.144	0.603	0.701	0.567	1.205	2.379	1.419	1.473
Egypt	0.405	2.615	2.261	2.914	1.056	2.804	1.116	1.565
Morocco	0.420	0.992	6.558	0.577	2.453	2.161	0.875	1.716
Israel	0.195	0.329	0.240	0.264	0.798	-0.153	0.585	0.333
MED	0.589	0.680	1.130	0.929	0.915	1.503	0.958	1.020
Stocks								
	2001	2002	2003	2004	2005	2006	2007	Average INV2
Turkey	0.140	0.184	0.179	0.199	0.214	0.292	0.293	0.242
Egypt	1.467	2.109	2.886	3.945	3.425	3.613	3.310	2.874
Morocco	1.425	1.564	1.380	1.730	1.804	2.028	1.886	1.754
Israel	0.601	0.720	0.752	0.925	1.032	1.067	1.400	0.945
MED	0.085	0.105	0.072	0.090	0.070	0.053	0.040	0.068

Source: Own calculations UNCTAD FDI database

Note: data availability is sparse hence we are unable to include all MED5 countries

[28] This is common in FDI data as investment decisions tend to happen in one period (discrete) unlike trade which is more continuous in nature. To minimise this effect we calculate average values for the entire period.

8.3 FDI BY SECTOR

Unlike trade data, sectoral FDI data is hard to come by which implies that world comparative indicators cannot be easily constructed. Bearing these limitations in mind, Table 49 compiles FDI inflow data for the MED region for 2007 from the ANIMA (2008) study and identifies the associated trade flows for the goods trade sectors[29]. Table 49 is ordered by decreasing rank of total share of inward FDI where we see that 'Transport, construction and associated services' is the sector attracting most FDI in terms of both value and amount of projects. It is also the sector with the highest employment creation in the region according to the ANIMA (2008) report. Unfortunately given the horizontal nature of the sector, we have not been able to identify any trade values for this sector but it appears that, besides services, this sector should be a non tradable sector in which countries have been engaged in horizontal type FDI to service the MED markets. The 'Energy' sector is the second in terms of attracting FDI inflows but one of the smallest in job creation. It is also the largest export sector in 2007 with over 38% of total exports. Petroleum resources are high in Algeria, Libya and Syria which is likely to attract investment from petroleum companies in the world. We are also interested in the sectors which we have analysed in more depth throughout the report and hence focus on the 'car manufacturing' and the 'textile' sector. For car manufacturing, evidence shows that the sector only attracts 1.3% of total FDI flows but that employment creation for this sector is the second highest in the sample. In terms of our earlier analysis we saw how MED countries were increasingly specialising in motor vehicles but how trade exports in these sectors remained low with the exception of Turkey. In terms of RCAs in the sector, table A.5 in the annex shows increases in RCA from 1996 to 2006 but the only country that overturned a global comparative disadvantage to a strong comparative advantage is Turkey. Given that we cannot identify the destination of the FDI flows in the MED region it is hard to determine the nature of the FDI flow and hence the consequences of liberalisation on these. If FDI is flowing into countries that have a revealed comparative disadvantage in car manufacturing then it could be argued that this is predominantly a horizontal investment, which would imply that the removal of border barriers should see reduction in FDI flows. Conversely if FDI is flowing into Turkey, then it is likely that this is vertical FDI and hence that we see continued increases in FDI flows and in trade flows. The T&C on the other hand is one that receives the lowest share of FDI and also one in which employment creation is very low. Incidentally it is also the sector with the highest RCA in the entire sample and the second sector in terms of export share to the world. It is likely that FDI in this sector is predominantly vertical hence the removal of tariffs could have important welfare effects in the form of increased FDI flows and increased exports.

[29] The nomenclature used to identify the different sectors was not identified hence the trade in goods sector is an approximation carried out at the ISIC rev 3, 3 digit level.

Table 49: Sectoral FDI inflows MED 2007

Sector	Share of total FDI (%)	Number of projects	employment created	share imports manuf	share exports manuf	IIT	Av. RCA	Av. Tariff
BTP, transport, construction and associated services	22.6	127	22550					
Energy	19.4	86	200	8.60%	38.10%	0.38	0.91	4.7
Banks, insurance and other financial services	16.8	115	1365					
Glass cement, minerals, wood and paper	15.3	63	4020	4.00%	1.40%	0.51	0.98	8.7
Telecoms operators and internet	5	25	500					
Metal working and recycling	3.5	29	2030	11.30%	6.10%	0.68	1.07	9.4
Chemicals, plaster and fertilizers	3.4	30	1490	6.40%	3.70%	0.72	1.17	5.3
Tourism and 'restauration'	2.2	49	14426					
Distribution	2	37	3200					
Agriculture	1.6	28	307	10.20%	6.40%	0.75	1.15	18.3
Other	1.6	24	3000					
Car Manufacturing and equipment	1.3	29	17710	10.40%	5.70%	0.69	0.83	9
electric and electronic equipment	1	34	1816	10.30%	7.30%	0.81	0.77	8.7
Aeronautic , naval and rail way equipment	1	10	570	2.70%	1.00%	0.5	0.89	1.6
Medicaments	0.8	18	590	5.90%	2.50%	0.58	0.99	5.5
IT services and software	0.7	49	1410					
Electronic parts	0.7	11	625					
Mechanical equipment	0.5	15	40	11.50%	2.60%	0.36	1.23	4
Engineering and services to enterprises	0.3	47	3362					
Textile and clothing	0.3	8	100	6.40%	12.20%	0.71	1.4	10.4
TOTAL	100	834	79311	87.70%	86.90%			

Source: FDI information compiled from ANIMA (2008), trade information calculated from Comtrade at ISIC rev 3 3digit level

In the annex to this report, we look at FDI inflows by sector for Egypt, Tunisia and Morocco[30]. These appear to not be deeply illuminating. Morocco and Egypt both have relatively low shares of FDI flows (NB not stocks) into the primary sector and whilst Egypt has a balance between manufacturing and services, FDI into Morocco is more concentrated on services (with wide annual fluctuations). Tunisia, on the other hand sees a concentration in the primary sector.

Within the industrial sector only Egypt gives breakdown by industry. The categories are fairly broad and so links to RCA indices are difficult to make. It is striking however that 'chemicals' seems to be the largest recipient even though it has a low RCA which is consistent with market seeking behaviour

[30] We were constrained by the lack of sectoral data for MED countries

ANNEX:

A.1. ANNUAL GROWTH OF TRADE (1996-2006)

	X EU	X RoW	M EU	M RoW
MAR	6.19%	10.41%	8.44%	17.94%
ALB	10.99%	15.53%	10.37%	20.91%
DZA	10.26%	20.43%	10.88%	17.51%
EGY	9.74%	20.59%	2.79%	9.50%
ISR	5.31%	10.81%	2.77%	9.13%
JOR	3.51%	25.67%	9.52%	21.32%
LBN	5.38%	21.06%	1.57%	10.37%
LBY	13.18%	27.11%	4.73%	15.97%
MRT	6.08%	13.41%	6.53%	17.44%
PSE	22.58%	8.21%	3.45%	17.66%
SYR	6.68%	13.19%	8.26%	17.45%
TUN	7.89%	13.87%	6.68%	11.39%
TUR	15.13%	20.33%	10.11%	18.22%
EUROMED12	10.78%	16.51%	7.28%	14.24%

Source: Own calculations, COMTRADE (mirror flows)
Note: These values differ from Table 8 as they are computed using Mirror flows and take into account a different geographical destinations.

A.2. ANNUAL GROWTH OF NON-OIL TRADE (1996-2006)

	X EU	X RoW	M EU	M RoW
MAR	5.99%	9.88%	7.68%	15.71%
ALB	10.75%	13.52%	10.06%	19.74%
DZA	-10.26%	18.28%	10.70%	17.52%
EGY	11.70%	23.66%	2.71%	7.85%
ISR	4.90%	10.69%	2.60%	8.03%
JOR	3.60%	25.84%	9.48%	17.55%
LBN	5.23%	20.95%	0.16%	7.59%
LBY	12.09%	21.68%	3.36%	15.91%
MRT	6.10%	9.22%	5.64%	20.13%
PSE	22.64%	8.06%	3.45%	17.52%
SYR	5.61%	20.00%	6.92%	16.40%
TUN	7.57%	12.65%	5.94%	10.87%
TUR	15.07%	19.83%	10.00%	17.17%
EUROMED12	9.88%	14.89%	6.96%	12.83%

Source: Own calculations, COMTRADE (mirror flows)

A.3. RCA IN TEXTILES 1996-2006

	1996			2000			2006		
	26	65	84	26	65	84	26	65	84
MAR	0.06	0.69	9.38	0.08	0.60	9.42	0.17	0.67	9.88
ALB	0.12	0.38	7.03	0.33	0.39	9.85	0.26	0.22	8.75
All	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
DZA	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.00
EGY	3.42	2.85	2.44	10.09	3.69	3.74	4.52	2.19	2.34
ISR	0.64	0.81	1.03	0.57	0.78	0.78	0.50	1.13	0.39
JOR	0.42	0.35	0.83	0.19	0.55	1.66	0.80	0.32	13.52
LBN	0.25	0.49	1.91	0.45	0.65	0.82	1.32	0.65	0.74
LBY	0.03	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00
MRT	0.00	0.05	0.08	0.01	0.04	0.14	0.04	0.01	0.06
SYR	10.64	0.22	1.03	14.14	1.21	1.07	11.60	2.00	1.15
TUN	0.34	1.00	14.23	0.47	1.16	13.67	0.24	1.76	11.71
TUR	2.62	3.67	8.42	2.20	5.18	8.20	2.30	5.16	6.56

Source: Own calculations, Comtrade

A.4. MED5 AGRICULTURAL EXPORTS RANKED BY DIFFERENCE IN SHARES ACROSS DESTINATION (2007)

Morocco

Row	product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
080520	Mandarins (including tangerines and	1.93%	0.80%	4.28%	-3.48%	80.37	20.59	0.26	0.89
080510	Oranges	1.10%	0.64%	2.05%	-1.41%	36.19	14.10	0.39	1.48
040630	Processed cheese, not grated or pow	0.41%	0.00%	1.26%	-1.26%	26.92	0.03	0.00	0.00
030371	Other fish, excluding livers and ro	0.27%	0.06%	0.70%	-0.65%	95.81	41.16	0.43	0.39
030374	Other fish, excluding livers and ro	0.18%	0.02%	0.52%	-0.50%	23.17	5.14	0.22	0.19
030420	Frozen fillets	0.21%	0.05%	0.54%	-0.49%	2.39	0.42	0.18	0.43
230120	Flours, meals and pellets, of fish	0.25%	0.10%	0.56%	-0.46%	9.31	5.14	0.55	0.84
210111	Extracts, essences and concentrates	0.10%	0.01%	0.30%	-0.30%	4.11	0.24	0.06	0.12
030379	Other	0.15%	0.07%	0.29%	-0.22%	4.20	4.08	0.97	1.21
130231	Mucilages and thickeners, whether o	0.14%	0.08%	0.28%	-0.20%	116.25	81.09	0.70	1.36
150420	Fats and oils and their fractions,	0.14%	0.09%	0.25%	-0.15%	18.67	11.47	0.61	1.78
071290	Other vegetables; mixtures of veget	0.05%	0.00%	0.13%	-0.13%	5.24	0.36	0.07	0.13
030199	Other live fish :-- Other	0.03%	0.01%	0.09%	-0.08%	6.74	4.52	0.67	0.42
070951	Mushrooms and truffles :-- Mushroom	0.02%	0.00%	0.07%	-0.07%	3.48	0.00	0.00	0.00
040690	Other cheese	0.02%	0.00%	0.07%	-0.07%	0.20	0.00	0.00	0.00
	TOTAL	5.00%	1.93%	11.40%					
	Average				-0.63%	28.870	12.557	0.340	0.615

Source: Own calculations, Comtrade (mirror flows)

Egypt

Row	product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
100630	Semi-milled or wholly milled rice,	1.19%	0.04%	0.52%	-0.49%	19.97	1.78	0.09	0.03
080510	Oranges	1.13%	0.69%	0.07%	0.62%	37.22	15.32	0.41	0.74
210690	Other	0.42%	0.01%	0.41%	-0.40%	2.59	0.07	0.03	0.03
040630	Processed cheese, not grated or pow	0.33%	0.00%	0.29%	-0.29%	21.79	0.00	0.00	0.00
170199	Other	0.25%	0.00%	0.85%	-0.85%	4.42	0.00	0.00	0.00
040690	Other cheese	0.17%	0.00%	0.14%	-0.14%	1.61	0.00	0.00	0.00
120922	Seeds of forage plants, other than	0.17%	0.01%	0.00%	0.01%	176.37	9.14	0.05	0.05
100620	Husked (brown) rice	0.17%	0.01%	0.00%	0.01%	18.41	1.17	0.06	0.08
200410	Potatoes	0.16%	0.02%	0.03%	-0.01%	5.14	0.55	0.11	0.14
100300	Barley.	0.10%	0.00%	1.69%	-1.69%	2.12	0.00	0.00	0.00
180631	Other, in blocks, slabs or bars :--	0.07%	0.00%	0.05%	-0.05%	3.47	0.03	0.01	0.01
210410	Soups and broths and preparations t	0.07%	0.00%	0.02%	-0.02%	4.71	0.01	0.00	0.00
071333	Beans (Vigna spp., Phaseolus spp.)	0.12%	0.05%	0.01%	0.05%	14.56	6.83	0.47	0.52
170111	Raw sugar not containing added flav	0.06%	0.00%	0.17%	-0.17%	0.88	0.00	0.00	0.00
200799	Other	0.05%	0.00%	0.04%	-0.04%	5.20	0.16	0.03	0.04
	TOTAL	4.44%	0.85%	4.30%					
	Average				-0.23%	21.23	2.34	0.08	0.11

Source: Own calculations, Comtrade (mirror flows)

Israel

Row	product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
200911	Orange juice :-- Frozen	0.13%	0.02%	0.18%	-0.16%	7.61	1.33	0.18	0.13
130219	Vegetable saps and extracts :-- Oth	0.04%	0.02%	0.05%	-0.02%	4.46	2.78	0.62	0.50
120999	Other	0.03%	0.01%	0.04%	-0.02%	10.98	5.34	0.49	0.40
200930	Juice of any other single citrus fr	0.02%	0.01%	0.02%	-0.02%	6.76	1.39	0.21	0.23
071290	Other vegetables; mixtures of veget	0.03%	0.02%	0.03%	-0.02%	3.12	1.51	0.48	0.47
200819	Nuts, ground-nuts and other seeds,	0.02%	0.00%	0.02%	-0.02%	1.07	0.18	0.17	0.19
070610	Carrots and turnips	0.06%	0.05%	0.07%	-0.02%	9.64	6.59	0.68	0.77
180690	Other	0.02%	0.01%	0.02%	-0.02%	0.30	0.07	0.22	0.28
040690	Other cheese	0.01%	0.00%	0.02%	-0.02%	0.11	0.00	0.05	0.06
060499	Other	0.01%	0.00%	0.01%	-0.01%	6.80	0.50	0.07	0.09
200970	Apple juice	0.02%	0.01%	0.02%	-0.01%	0.76	0.23	0.30	0.35
200990	Mixtures of juices	0.05%	0.04%	0.05%	-0.01%	4.24	2.56	0.60	0.78
200980	Juice of any other single fruit or	0.02%	0.01%	0.02%	-0.01%	1.22	0.63	0.52	0.53
200290	Other	0.01%	0.01%	0.01%	-0.01%	0.95	0.34	0.36	0.37
071080	Other vegetables	0.01%	0.00%	0.01%	-0.01%	0.39	0.04	0.11	0.14
	TOTAL	0.47%	0.21%	0.58%					
	Average				-0.02%	3.893	1.566	0.337	0.353

Source: Own calculations, Comtrade (mirror flows)

Jordan

Row	product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
070200	Tomatoes, fresh or chilled.	1.31%	0.25%	1.38%	-1.13%	25.30	3.08	0.12	0.03
240220	Cigarettes containing tobacco	0.58%	0.00%	0.61%	-0.61%	4.33	0.01	0.00	0.00
070511	Lettuce :-- Cabbage lettuce (head l	0.20%	0.00%	0.21%	-0.21%	31.04	0.05	0.00	0.00
190110	Preparations for infant use, put up	0.17%	0.00%	0.18%	-0.18%	7.66	0.00	0.00	0.00
070410	Cauliflowers and headed broccoli	0.15%	0.00%	0.16%	-0.16%	28.55	0.06	0.00	0.00
040229	In powder, granules or other solid	0.13%	0.00%	0.14%	-0.14%	20.63	0.00	0.00	0.00
040700	Birds' eggs, in shell, fresh, prese	0.13%	0.00%	0.14%	-0.14%	8.31	0.00	0.00	0.00
220210	Waters, including mineral waters an	0.10%	0.00%	0.10%	-0.10%	2.15	0.03	0.01	0.00
070930	Aubergines (egg-plants)	0.10%	0.01%	0.11%	-0.10%	41.13	3.22	0.08	0.02
200290	Other	0.06%	0.00%	0.07%	-0.07%	5.17	0.00	0.00	0.00
210210	Active yeasts	0.06%	0.00%	0.06%	-0.06%	8.94	0.00	0.00	0.00
190530	Sweet biscuits; waffles and wafers	0.06%	0.00%	0.06%	-0.06%	1.13	0.04	0.03	0.01
210690	Other	0.07%	0.01%	0.07%	-0.06%	0.42	0.07	0.17	0.03
160239	Of poultry of heading No. 01.05 :--	0.05%	0.00%	0.05%	-0.05%	13.74	0.00	0.00	0.00
160250	Of bovine animals	0.05%	0.00%	0.05%	-0.05%	3.46	0.00	0.00	0.00
	TOTAL	3.21%	0.29%	3.41%					
	Average				-0.21%	13.464	0.438	0.028	0.006

Source: Own calculations, Comtrade (mirror flows)

Tunisia

Row	product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
080410	Dates	0.99%	0.76%	2.34%	-1.58%	222.33	174.04	0.78	4.36
030420	Frozen fillets	0.21%	0.00%	1.42%	-1.42%	2.37	0.00	0.00	0.00
030349	Tunas (of the genus Thunnus), skipj	0.10%	0.00%	0.71%	-0.71%	14.00	0.00	0.00	0.00
150990	Other	0.51%	0.42%	1.05%	-0.63%	53.40	44.75	0.84	5.31
151710	Margarine, excluding liquid margari	0.06%	0.00%	0.40%	-0.40%	6.67	0.00	0.00	0.00
190530	Sweet biscuits; waffles and wafers	0.06%	0.00%	0.39%	-0.38%	1.14	0.06	0.05	0.17
220290	Other	0.06%	0.01%	0.39%	-0.38%	1.60	0.12	0.08	0.23
151620	Vegetable fats and oils and their f	0.03%	0.00%	0.20%	-0.20%	1.39	0.00	0.00	0.00
200290	Other	0.03%	0.00%	0.16%	-0.15%	2.22	0.30	0.14	0.39
150910	Virgin	3.32%	3.30%	3.43%	-0.14%	93.55	52.71	0.56	12.87
190219	Uncooked pasta, not stuffed or othe	0.02%	0.00%	0.13%	-0.13%	1.08	0.02	0.01	0.03
200980	Juice of any other single fruit or	0.02%	0.00%	0.12%	-0.12%	1.05	0.00	0.00	0.01
210690	Other	0.02%	0.00%	0.12%	-0.12%	0.11	0.01	0.05	0.11
151000	Other oils and their fractions, obt	0.07%	0.05%	0.16%	-0.12%	48.86	23.65	0.48	3.96
190240	Couscous	0.02%	0.00%	0.11%	-0.11%	25.78	0.57	0.02	0.08
	TOTAL	5.50%	4.54%	11.12%					
	Average				-0.44%	31.705	19.749	0.202	1.834

Source: Own calculations, Comtrade (mirror flows)

A.5. RCA MOTOR VEHICLES 1996 AND 2006

	RCA 1996					
	Goods/service vehicles	Motor veh parts/access	Motorcycles/ cycles/etc	Passenger cars etc	Road motor vehicles nes	Trailers/ caravans/etc
MAR	0.01	0.11	0.02	0.00	0.00	0.02
ALB	0.29	0.03	0.03	0.01	0.08	0.03
DZA	1.00	1.00	1.00	1.00	1.00	1.00
EGY	0.01	0.00	0.00	0.00	0.01	0.01
ISR	0.01	0.00	0.01	0.01	0.40	0.03
JOR	0.02	0.05	0.09	0.00	0.00	0.66
LBN	0.06	0.08	0.01	0.02	0.08	0.16
LBY	0.03	0.10	0.06	0.03	0.00	0.03
MRT	0.02	0.00	0.00	0.00	0.02	0.01
SYR	0.00	0.00	0.02	0.00	0.00	0.01
TUN	0.03	0.00	0.00	0.00	0.00	0.02
TUR	0.02	0.21	0.14	0.00	0.00	0.12
	RCA 2006					
	Goods/service vehicles	Motor veh parts/access	Motorcycles/ cycles/etc	Passenger cars etc	Road motor vehicles nes	Trailers/ caravans/etc
MAR	0.01	0.19	0.03	0.00	0.38	0.01
ALB	0.08	0.05	0.00	0.04	0.00	0.18
DZA	1.00	1.00	1.00	1.00	1.00	1.00
EGY	0.00	0.00	0.00	0.00	0.00	0.02
ISR	0.08	0.09	0.01	0.01	0.71	0.52
JOR	0.03	0.10	0.04	0.00	0.04	0.14
LBN	0.36	0.08	0.02	0.06	0.83	1.06
LBY	0.15	0.18	0.02	0.02	0.04	0.95
MRT	0.00	0.00	0.00	0.00	0.00	0.00
SYR	0.01	0.00	0.00	0.00	0.00	0.00
TUN	0.09	0.04	0.01	0.02	0.03	0.27
TUR	0.06	0.77	0.74	0.00	0.04	0.85

Source: Own calculations, Comtrade

A.6. FK EXPORT SIMILARITY (WITH PETROL) 1996 AND 2006

FK export similarity total exports 1996													
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR	1.000												
ALB	0.251	1.000											
DZA	0.013	0.016	1.000										
EGY	0.130	0.122	0.561	1.000									
ISR	0.099	0.061	0.012	0.078	1.000								
JOR	0.146	0.064	0.011	0.078	0.093	1.000							
LBN	0.105	0.116	0.008	0.069	0.302	0.087	1.000						
LBY	0.003	0.011	0.632	0.557	0.005	0.004	0.004	1.000					
MRT	0.093	0.011	0.002	0.009	0.005	0.006	0.007	0.001	1.000				
PSE										1.000			
SYR	0.061	0.057	0.572	0.585	0.034	0.038	0.045	0.846	0.004		1.000		
TUN	0.455	0.285	0.100	0.200	0.099	0.100	0.123	0.089	0.015		0.140	1.000	
TUR	0.239	0.196	0.014	0.191	0.132	0.094	0.146	0.013	0.008		0.070	0.261	1.000
FK export similarity total exports 2006													
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR	1.000												
ALB	0.229	1.000											
DZA	0.040	0.000	1.000										
EGY	0.176	0.000	0.361	1.000									
ISR	0.126	0.000	0.032	0.107	1.000								
JOR	0.284	0.000	0.009	0.137	0.134	1.000							
LBN	0.119	0.000	0.013	0.147	0.172	0.177	1.000						
LBY	0.031	0.000	0.741	0.227	0.028	0.003	0.007	1.000					
MRT	0.059	0.000	0.336	0.132	0.018	0.007	0.027	0.333	1.000				
PSE	0.092	0.000	0.012	0.075	0.114	0.098	0.074	0.011	0.001	1.000			
SYR	0.122	0.001	0.702	0.284	0.072	0.095	0.088	0.697	0.337	0.063	1.000		
TUN	0.425	0.001	0.128	0.259	0.141	0.243	0.138	0.123	0.101	0.100	0.199	1.000	
TUR	0.250	0.000	0.039	0.264	0.160	0.205	0.223	0.041	0.011	0.089	0.130	0.292	1.000

Source: Own calculations, Comtrade

A.7. FK EXPORT SIMILARITY DIFFERENCES BETWEEN EU AND WLD 96 AND 06

	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR	0.000												
ALB	*0.035*	0.000											
DZA	-0.016	*0.000*	0.000										
EGY	-0.025	-0.033	*0.005*	0.000									
ISR	*0.033*	*0.009*	*0.007*	*0.009*	0.000								
JOR	-0.020	-0.014	-0.041	*0.009*	*0.011*	0.000							
LBN	*0.061*	*0.006*	-0.017	*0.034*	-0.063	*0.013*	0.000						
LBY	*0.001*	-0.001	*0.006*	*0.004*	-0.003	-0.002	*0.003*	0.000					
MRT	-0.044	*0.000*	*0.001*	*0.001*	-0.001	-0.002	-0.001	*0.001*	0.000				
PSE										0.000			
SYR	*0.002*	*0.002*	-0.015	-0.027	*0.006*	-0.002	*0.034*	-0.001	0.000		0.000		
TUN	*0.020*	*0.023*	-0.001	-0.042	*0.018*	-0.020	*0.043*	*0.001*	*0.001*		*0.009*	0.000	
TUR	*0.029*	*0.000*	-0.005	-0.049	*0.008*	-0.005	*0.011*	*0.000*	0.000		-0.005	*0.021*	0.00

	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR	0.000												
ALB	*0.031*	0.000											
DZA	-0.036	-0.011	0.000										
EGY	-0.004	-0.013	-0.014	0.000									
ISR	*0.002*	*0.001*	*0.007*	-0.005	0.000								
JOR	-0.172	-0.042	*0.030*	-0.115	*0.022*	0.000							
LBN	*0.005*	*0.009*	-0.026	-0.082	-0.005	*0.008*	0.000						
LBY	-0.004	*0.002*	*0.017*	-0.016	*0.001*	*0.022*	*0.012*	0.000					
MRT	*0.002*	*0.000*	*0.004*	-0.001	-0.013	-0.001	-0.020	-0.007	0.000				
PSE	-0.019	-0.019	-0.001	-0.060	-0.044	-0.035	-0.046	-0.003	-0.001	0.000			
SYR	-0.030	*0.018*	-0.046	-0.023	-0.019	-0.014	-0.040	*0.001*	-0.002	-0.049	0.000		
TUN	*0.038*	*0.012*	-0.010	-0.026	*0.007*	-0.155	-0.030	-0.007	-0.001	-0.016	*0.023*	0.000	
TUR	*0.026*	-0.002	-0.021	-0.077	-0.004	-0.121	-0.047	-0.012	-0.002	-0.064	-0.009	-0.004	0.00

Source: Own calculations, Comtrade

A.8. INDICATORS

RCA (Revealed Comparative Advantage): Given that there is an important lack of production data at high levels of disaggregation, economists often use this indicator to proxy for comparative advantages. Where we say that a country 'reveals' its comparative advantage when the export share of its product to the world is higher than the equivalent export share of that same product in total world trade:

$$RCA = \left(\frac{X_{i,j}}{\sum_i X_{i,j}} \right) \div \left(\frac{\sum_j X_{i,j}}{\sum_i \sum_j X_{i,j}} \right)$$

with $X_{i,j}$ = exports of sector *i* from country *j*. When the RCA is above 1, meaning that a given country exports, proportionally to its total exports, more than the share of exports of the world in that given product we say that a country has a comparative advantage. Where the RCA is below 1, we say that the country has a comparative disadvantage.

Hence, for example, if a country had a high comparative advantage in a given sector but was exporting very little to the EU, this might indicate barriers to entry in the EU market.

BRCA (Bilateral RCA): The bilateral RCA can be seen as a modified RCA, where rather than having the world as comparator, we compare the export shares of a given country for a given product (say Jordan) in a particular destination market (the EU), to the export shares of the world for that product in that same destination market – and then this is done across all product lines.

$$RCA_{BIL} = \left(\frac{X_{i,EU}^{Jordan}}{\sum_{i} X_{i,EU}^{Jordan}} \right) \div \left(\frac{\sum_{j} X_{i,EU}^{World}}{\sum_{i} X_{i,EU}^{World}} \right)$$

Hence the bilateral RCA gives us an indication of how much a given country is exporting to a given market relative to how much the world is exporting to that market. A bilateral RCA above one will tell us for that particular good that Jordan has a revealed comparative advantage in the EU market, relative to the rest of the world. Essentially, the measure shows the RCA (as explained above) but with respect to a given market.

RMA1 (Revealed Market Access): combines the concepts of the RCA and BRCA and allows us to assess, by product, whether there is any evidence that Jordan's access to the EU market is higher or lower than that suggested by the Jordan's revealed comparative advantage.

$$RMA1_{i,k} = RCA_{BIL} \Big/ RCA$$

The intuition behind this indicator is that we suppose that bilateral trade should follow global comparative advantages thus a country should broadly access a given market following its comparative advantage and following the demand that there will be for the given good in that market. To calculate the RMA1, we simply divide the bilateral RCA of a given country by the global RCA of that country. An RMA1 below 1 shows us that a given good is not entering the target market at the rate that would be expected according to its global revealed comparative advantage. An RMA1 above 1 tells us that the market access for the given good is above that which would be suggested by the indicator of global revealed comparative advantage.

RMA2: With the RMA1 indicator we are comparing market access with respect to all other partners and with respect to our performance in world markets. The alternative is to compare market access into a given economy with the level of access in a comparator economy i.e. is Jordan exporting as much of a given product to the EU as it is to the Rest of the World?. To answer this question, we use another measure of revealed market

access (RMA2). Here we divide exports to the EU by exports to the rest of the world and normalise this by the economic mass of each destination.

$$RMA2_{i,j,k} = \left(\frac{X_{i,j}^{k1}}{X_{i,j}^{k2}} \right) \left(\frac{GDP_{k2}}{GDP_{k1}} \right)$$

Where *i* is the industry, *j* is the origin country and *k* is the destination country. Gravity suggests that countries export goods according to the size of the destination market so we would expect that, putting aside differences in tastes across destinations, countries trade patterns should follow economic mass so that Jordan's exports to the RoW will be bigger by the amount that the RoW is bigger relative to the EU. An RMA2 below 1 will tell us that Jordan is not exporting as much to the EU as it is to the RoW as would be suggested by economic mass.

The two RMA measures are based on different principles capturing different theories of international trade, comparison is thus not straight forward. The RMA1 compares comparative advantages of a country with respect to the world to those enjoyed in a given market whereas the RMA2 does not rely on comparative advantages but rather on gravity and how much *should* be exported to a given country.

A.9. EVOLUTION OF SECTORAL INFLOWS OF FDI IN EGYPT AND CORRESPONDING RCAS

Sector/industry	***2001***	***2002***	***2003***	***2004***
Primary	**13.74%**	**12.18%**	**3.12%**	**5.61%**
Agriculture, hunting, forestry and fishing	5.19%	9.47%	1.80%	4.57%
	(2.87)	*(3.15)*	*(2.97)*	*(2.65)*
Mining, quarrying and petroleum	5.19%	9.47%	1.80%	4.57%
	(2.11)	*(1.83)*	*(1.58)*	*(1.59)*
Secondary	**51.36%**	**29.34%**	**39.83%**	**52.04%**
Food, beverages and tobacco	11.69%	8.01%	7.95%	18.61%
	(1.34)	*(1.05)*	*(1.03)*	*(1.17)*
Textiles, clothing and leather	1.23%	7.09%	9.84%	7.84%
	(3.47)	*(2.91)*	*(2.79)*	*(2.54)*
Wood and wood products	0.41%	0.11%	0.14%	0.07%
	(0.07)	*(0.06)*	*(0.06)*	*(0.06)*
Chemicals and chemical products	38.02%	14.13%	21.90%	25.51%
	(0.93)	*(0.93)*	*(0.78)*	*(0.57)*
Tertiary	**34.90%**	**58.47%**	**57.05%**	**42.35%**
Finance	34.90%	58.47%	57.05%	42.35%

Source: UNCTAD, compiled from data from the Central Bank of Egypt. RCAs calculated from COMTRADE

A.10. EVOLUTION OF SECTORAL INFLOWS OF FDI IN MOROCCO AND CORRESPONDING RCAS

Sector/industry	*2001*	*2002*	*2003*	*2004*
Unspecified	**0.29%**	**1.43%**	**0.45%**	**0.97%**
Primary	**0.22%**	**3.89%**	**1.15%**	**4.00%**
Agriculture and hunting	0.11%	0.38%	0.10%	0.31%
		(2.43)	(2.63)	(2.76)
Forestry and Fishing	0.11%	0.40%	0.53%	0.14%
		(5.78)	(6.35)	(6.20)
Mining, quarrying and petroleum	0.00%	3.11%	0.51%	3.55%
		0.87	0.71	0.72
Secondary	**6.97%**	**20.02%**	**80.80%**	**18.94%**
Tertiary	**92.53%**	**74.66%**	**17.61%**	**76.10%**
Construction	0.36%	0.26%	0.28%	1.11%
Trade	3.43%	4.27%	2.08%	6.45%
Transport, storage and communications	82.30%	14.44%	3.52%	23.11%
Finance	0.97%	1.33%	0.94%	18.15%
Business activities	2.52%	31.38%	7.25%	22.24%
Other services	2.94%	22.98%	3.53%	5.03%

Source: UNCTAD, compiled from data from the 'Office des Changes'. RCAs calculated from COMTRADE

A.11. EVOLUTION OF SECTORAL INFLOWS OF FDI IN TUNISIA AND CORRESPONDING RCAS

Sector/industry	*2000*	*2001*	*2002*	*2003*
Unspecified	**1.03%**	**2.94%**	**39.62%**	**17.90%**
Primary	**30.65%**	**46.75%**	**36.62%**	**42.01%**
agriculture, hunting, forestry and fishing	0.37%			
	(0.86)	(0.78)	(0.68)	(0.77)
mining, quarrying and petroleum	30.28%	46.75%	36.62%	42.01%
	(1.16)	(1.17)	(0.94)	(1.07)
Secondary	**64.43%**	**35.86%**	**21.88%**	**37.59%**
Tertiary	**3.89%**	**14.45%**	**1.88%**	**2.50%**
hotels and restaurant	3.89%	14.45%	1.88%	2.50%

Source: UNCTAD, compiled from data from the Central Bank of Tunisia. RCAs calculated from COMTRADE

A.12. ANALYSIS OF POSSIBLE MARKET ACCESS ISSUES BY MED5 COUNTRY

Morocco - (2006)

HS Code	product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA1	RMA2
280920	Phosphoric acid and polyphosphoric	7.94%	2.98%	21.21%	-18.23%	354.55	180.65	0.51	0.86
251010	Unground (Calcium Phosphate)	4.35%	1.69%	11.46%	-9.77%	565.44	349.34	0.62	0.90
310530	Diammonium hydrogenorthophosphate	1.91%	0.78%	4.94%	-4.16%	136.51	72.10	0.53	0.96
160413	Fish, whole or in pieces, but not m	2.45%	1.36%	5.36%	-4.00%	353.66	225.06	0.64	1.55
310540	Ammonium dihydrogenorthophosphate	1.25%	0.48%	3.32%	-2.85%	163.62	72.18	0.44	0.87
040630	Processed cheese, not grated	0.78%	0.00%	2.85%	-2.85%	46.23	0.00	0.00	0.00
080520	Mandarins (including tangerines	1.21%	0.58%	2.87%	-2.29%	54.03	15.22	0.28	1.23
310310	Superphosphates	0.93%	0.37%	2.43%	-2.05%	142.80	102.40	0.72	0.94
710691	Other :-- Unwrought (Silver)	0.64%	0.13%	1.99%	-1.86%	8.84	2.42	0.27	0.40
271000	Petroleum oils and oils obtained fr	1.82%	1.35%	3.09%	-1.74%	0.47	0.39	0.84	2.66
721049	Otherwise plated or coated with zinc (flat-roled products of Iron or non alloy steel)	0.82%	0.35%	2.06%	-1.71%	5.17	1.66	0.32	1.04
740400	Copper waste and scrap.	0.70%	0.32%	1.75%	-1.43%	4.93	2.27	0.46	1.10
080510	Oranges	0.94%	0.55%	1.97%	-1.42%	37.99	15.11	0.40	1.71
270750	Other aromatic hydrocarbon mixtures	1.91%	1.53%	2.93%	-1.40%	41.17	24.64	0.60	3.18
470329	Semi-bleached or bleached :(chemical wood pulp)	0.44%	0.23%	1.00%	-0.78%	5.94	2.51	0.42	1.38
	Total	28.10%	12.71%	69.25%					
	Average					128.09	71.06	0.47	1.25

Source: Own calculations, Comtrade

Egypt - (2006)

HS Code	product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA1	RMA2
252329	Portland cement :	1.47%	0.02%	2.76%	-2.74%	30.00	0.89	0.03	0.02
100630	Semi-milled or wholly milled rice,	1.02%	0.01%	1.91%	-1.90%	19.23	0.36	0.02	0.01
271121	In gaseous state :-- Natural gas	0.94%	0.10%	1.68%	-1.58%	0.85	0.05	0.06	0.12
620342	Trousers, bib and brace overalls, b	1.00%	0.30%	1.61%	-1.31%	6.35	1.53	0.24	0.38
520100	Cotton, not carded or combed.	1.06%	0.43%	1.62%	-1.18%	10.27	28.60	2.79	0.54
271000	Petroleum oils and oils obtained fr	12.88%	12.37%	13.34%	-0.97%	3.55	3.87	1.09	1.87
721420	Containing indentations, ribs, (bars and rods of iron or non-alloy steel)	0.94%	0.44%	1.39%	-0.94%	12.42	6.29	0.51	0.64
080510	Oranges	1.18%	0.70%	1.60%	-0.90%	40.84	17.07	0.42	0.88
620462	Trousers, bib and brace overalls, b	0.90%	0.48%	1.27%	-0.79%	5.40	2.69	0.50	0.76
720839	Other, in coils, not further worked (Flat rolled products of iron or non-alloy steel)	1.95%	1.54%	2.32%	-0.78%	19.55	17.85	0.91	1.34
210690	Other (food preparations)	0.42%	0.01%	0.78%	-0.77%	2.69	0.06	0.02	0.03
251512	Marble and travertine :-- Merely cu	0.47%	0.08%	0.81%	-0.73%	117.08	18.91	0.16	0.20
740811	Of refined copper :-- (Copper wire)	1.12%	0.73%	1.46%	-0.73%	8.67	4.93	0.57	1.01
720711	Containing by weight less than 0.25	0.41%	0.08%	0.69%	-0.61%	6.97	1.49	0.21	0.24
300490	Other (Medicaments)	0.33%	0.02%	0.60%	-0.58%	0.20	0.01	0.04	0.07
	Total	26.07%	17.31%	33.83%					
	Average					18.94	6.97	0.50	0.54

Source: Own calculations, Comtrade (mirror Flows)

Israel - (2006)

HS Code	product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA1	RMA2
710239	Non-industrial :-- Other (Diamonds)	31.93%	13.49%	38.63%	-25.14%	87.20	82.58	0.95	0.29
300490	Other (Medicaments)	6.76%	2.56%	8.29%	-5.73%	3.90	0.99	0.25	0.26
880330	Other parts of aeroplanes or helicopters	2.09%	0.00%	2.86%	-2.86%	5.42	0.00	0.00	0.00
310590	Other (Mineral or Chemical Fertilizers)	1.01%	0.54%	1.18%	-0.64%	145.36	175.78	1.21	0.38
300390	Other (Medicaments)	0.44%	0.01%	0.59%	-0.59%	10.30	0.14	0.01	0.01
903180	Other instruments, appliances and m	0.69%	0.40%	0.79%	-0.39%	6.10	4.18	0.68	0.42
711319	Of precious metal whether or not pl	0.77%	0.55%	0.85%	-0.30%	2.76	4.17	1.51	0.53
290890	Other (halogenated, Sulphonated nitrated derivateives of phenols)	0.50%	0.30%	0.57%	-0.28%	188.72	184.04	0.98	0.43
903039	Other instruments and apparatus, (Instrument for checking Voltage etc...)	0.28%	0.08%	0.35%	-0.27%	15.70	5.70	0.36	0.18
730890	Other (Structures and parts of structures)	0.36%	0.16%	0.43%	-0.27%	1.95	0.81	0.42	0.31
852520	Transmission apparatus (inc reception apparatus)	1.01%	0.81%	1.08%	-0.27%	0.61	0.39	0.64	0.62
610822	Briefs and panties :-- Of man-made	0.20%	0.00%	0.27%	-0.27%	10.16	0.10	0.01	0.01
852510	Transmission apparatus	0.26%	0.06%	0.33%	-0.26%	9.08	3.50	0.39	0.16
901380	Other devices, appliances and instr	0.21%	0.08%	0.26%	-0.18%	0.61	0.54	0.88	0.27
292249	Amino-acids and their esters, other	0.13%	0.00%	0.17%	-0.17%	4.89	0.04	0.01	0.01
	Total	46.63%	19.05%	56.65%					
	Average					32.85	30.86	0.55	0.26

Source: Own calculations, Comtrade

Jordan - (2006)

HS Code	product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA1	RMA2
611490	Of other textile materials (garnments)	6.46%	0.12%	6.68%	-6.33%	779.75	46.97	0.06	0.00
310290	Other, including mixtures (Nitrogenous Fertilizers)	4.33%	0.00%	4.48%	-4.48%	1528.68	0.00	0.00	0.00
620459	Skirts and divided skirts :--	4.28%	0.43%	4.41%	-3.99%	307.28	23.87	0.08	0.01
610690	Of other textile materials (Women's Blouses)	2.67%	0.04%	2.77%	-2.73%	428.22	8.76	0.02	0.00
280920	Phosphoric acid and polyphosphoric	2.43%	0.01%	2.52%	-2.51%	108.63	0.79	0.01	0.00
070200	Tomatoes, fresh or chilled.	2.50%	0.75%	2.56%	-1.81%	48.99	10.15	0.21	0.02
761290	Other (Aluminium Casks)	1.90%	0.17%	1.96%	-1.79%	64.49	4.22	0.07	0.01
611020	Of cotton (Jerseys, Pullovers)	3.08%	1.41%	3.14%	-1.73%	25.89	11.04	0.43	0.04
300390	Other (Medicaments)	1.81%	0.15%	1.87%	-1.72%	42.62	3.71	0.09	0.01
151620	Vegetable fats and oils	1.64%	0.00%	1.70%	-1.70%	63.75	0.00	0.00	0.00
240290	Other (Cigars, Cigarettes)	1.49%	0.00%	1.54%	-1.54%	1246.69	0.00	0.00	0.00
611420	Of cotton (Other Garments, Knitted or Crocheted)	1.44%	0.03%	1.49%	-1.47%	137.00	2.88	0.02	0.00
610520	Of man-made fibres	1.29%	0.00%	1.34%	-1.34%	160.78	0.00	0.00	0.00
010410	Sheep	1.15%	0.00%	1.20%	-1.20%	121.94	0.00	0.00	0.00
854420	Co-axial cable and other co-axial e	1.04%	0.00%	1.08%	-1.08%	25.51	0.00	0.00	0.00
	Total	37.52%	3.12%	38.74%					
	Average					339.35	7.49	0.06	0.01

Source: Own calculations, Comtrade

Tunisia - (2006)

HS Code	product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA1	RMA2
271000	Petroleum oils and oils obtained fr	2.93%	0.99%	9.48%	-8.49%	0.75	0.29	0.38	0.81
280920	Phosphoric acid and polyphosphoric	2.04%	0.51%	7.23%	-6.73%	91.08	30.66	0.34	0.54
310530	Diammonium hydrogenorthophosphate (	2.50%	1.22%	6.85%	-5.63%	178.40	112.38	0.63	1.37
151529	Maize (corn) oil and its fractions	0.99%	0.00%	4.34%	-4.34%	206.78	0.03	0.00	0.00
310310	Superphosphates	1.29%	0.35%	4.47%	-4.11%	197.48	96.41	0.49	0.61
283531	Polyphosphates:-- Sodium triphospha	0.64%	0.01%	2.78%	-2.77%	88.49	3.66	0.04	0.03
854459	Other electric conductors,	0.81%	0.29%	2.59%	-2.31%	6.54	1.84	0.28	0.86
252329	Portland cement :-- Other	0.53%	0.12%	1.93%	-1.81%	10.78	3.74	0.35	0.46
481840	Sanitary towels and tampons, napkin	0.41%	0.00%	1.80%	-1.79%	5.51	0.05	0.01	0.02
711319	Of precious metal (Jewellery)	0.42%	0.01%	1.79%	-1.78%	1.51	0.11	0.07	0.06
282612	Fluorides:-- Of aluminium	0.34%	0.08%	1.25%	-1.18%	213.46	173.77	0.81	0.47
200290	Other (Tomatoes)	0.25%	0.01%	1.07%	-1.06%	15.50	0.30	0.02	0.04
030239	Tunas (of the genus Thunnus) skipja	0.35%	0.13%	1.08%	-0.95%	63.18	65.85	1.04	0.95
190219	Uncooked pasta, not stuffed or othe	0.21%	0.00%	0.91%	-0.91%	11.47	0.06	0.00	0.01
283526	Phosphates:-- Other phosphates of c	0.21%	0.00%	0.90%	-0.90%	51.49	0.00	0.00	0.00
	Total	13.93%	3.72%	48.49%					
	Average					76.16	32.61	0.30	0.41

Source: Own calculations, Comtrade

APPENDIX 2

Selection of Sectors for NTB study

In this document we outline the key sectors for each of the Med5 countries where the data suggests there may be evidence of market access barriers in the EU market. It is important to note that this is a data driven process that is not motivated by any direct knowledge of existing NTBs.

We explain below the procedure followed, but essentially the key 2-digit industries in which there may be market access issues / barriers are identified in Table 2 for each country. As this is very much a data driven exercise in the first instance the 5-sectors to be examined for each country should be the top 5 sectors for each country. Hence, for Jordan these would be HS industries 61, 62, 31, 28, and 30. However, we feel it is important to cross-check / cross reference these lists with experts who have some knowledge of the countries / industries involved. For example, one of the industries which emerges for Egypt is sector 25 (Salt, sulphur, earth and stone….). At the 6-digit level this largely corresponds to cement and marble. This is a product which is costly to transport and thus one might expect that Egypt would export less to the EU than perhaps to countries which are closer by. Hence, there may well be easily identifiable causes for the apparent lack of access to the EU market. Given these possible shortcoming from this data driven exercise, we propose sending these tables to experts with knowledge of the economies so that they can filter out these types of sectors and select, from the provided lists, the sectors which they believe show genuine market access problems.

The way in which we proceed is as follows:

1. For each of the countries we first look at the divergence in the export shares, by product, of each country both to the EU and to the Rest of the World (RoW). We do this at a highly detailed level of disaggregation – HS 6-digit. Hence we are looking at the share of product "x" in total exports to the Rest of the World, and comparing this with the share of the same product in total exports to the EU. Suppose we find that product "x" comprises 10% of Jordan's exports to the Rest of the World but only 1% of exports to the EU. If there were significant market access issues in the EU market than one would expect this to be reflected in differences in these export shares. However, it is important to note that these differences do not have to be driven by import market access issues and may also, for example, be the result of heterogeneous preferences across export destinations.
2. We then rank the 6-digit industries by this difference in the export shares in order to identify those sectors where the differences are highest. The 50 industries with the biggest differences in export shares are given in Table 1 for each country, and where the difference in export shares described above is given in Column 4.
3. We then take those 50 industries with the biggest differences in export shares, and apply two other measures which can be used in order to try and identify sectors where there might be market access barriers / issues with regard to any particular market. These two other measures we call measures of revealed market access – RMA1 and RMA2 and these are described in more detail below. Hence, we select all those industries from the 50 industries identified above where both the RMA1 and the RMA2 suggest there may be an issue of market access. The purpose of

this exercise is to be both as systematic and thorough as possible. Essentially we have now applied three different measures each of which could indicate a lower share in the EU market than might be expected.

4. We then take all those 6-digit industries which emerge from the preceding and aggregate them to the 2-digit level. Hence, if we take Jordan, for example, out of the 50 6-digit industries there are 19 2-digit industries, where at the underlying 6-digit both the RMA1 and RMA2 indicate there may be market access issues.
5. Table 2 for each country then gives a list of the 2-digit sectors which have been identified by this analysis and where we rank the industries by the difference in the export shares as in "2" above, but where this has now been aggregated to the 2-digit level (Column 5). Column 1 of this table gives the share of the entire 2-digit industry in total exports for each country. Column 2 then gives the share of all those 6-digit industries at the 2-digit level for which the procedure identifies a possible market barrier. Columns 3 & 4 give the share of those 6-digit industries in the exports to the EU and the Rest of the World respectively. Hence, if we look at the first row of the table for Jordan, we see (from column 5) that Articles of Apparel and Clothing constitute 20.32% of Jordanian exports to the world. Derived from the 6-digit level analysis, for 18.6% of Jordanian exports to the world there is a potential market access issue in the EU market. Those 6-digit products comprise 2.11% of exports to the EU (col.3) , while they comprise 19.18% exports to the rest of the world (col.4), hence the difference in these export shares is 17.08% (col.5).

   As a second example, consider, table 2 for Egypt. The first row relates to sector 25 'Salt; sulphur; earth & stone' where we see that this sector occupies 3.9% of total Egyptian exports to the world. We see how our identified 6-digit sectors where the RMAs are below 1 in the top 50 table represent 2.52% of total exports to the world and where the share of exports to the EU is of 0.12% and that to the RoW is 4.64%. This sector appears as the one where the difference between the share of exports to the RoW and the share of exports to the EU is highest and would thus look like a natural candidate for our NTB analysis. However, as discussed above, before selecting this sector for the NTB analysis, we have to consider what the identified products (at 6-digits) are within this sector. We do this by looking at the first table, where the first two digits of the 6-digit code identifies the relevant 2-digit sector. Here we see how the identified 6-digit sectors relate predominantly to marble and cement etc. For this sector then, we have to be a little cautious as our RMA measures might be picking up the high costs of transporting heavy material to far away destinations.

NOTE:

- In the above procedure in step 2 we ranked the industries by the difference in exports shares. An alternative would be to rank the industries by their share of that countries' exports to the world (ie by column 1 of each table 1). We have also done this and then followed the subsequent steps. If we do so we get almost exactly the same results. There are only two additional 2-digit industries (one for Israel and one for Jordan) and these have been added to our selection.

Indicators Used in the tables:

RCA (Revealed Comparative Advantage): Given that there is an important lack of production data at high levels of disaggregation, economists often use this indicator to proxy for comparative advantages. Where we say that a country 'reveals' its comparative advantage when the export share of its product to the world is higher than the equivalent export share of that same product in total world trade. When the RCA is above 1, meaning that a given country exports, proportionally to its total exports, more than the share of exports of the world in that given product we say that a country has a comparative advantage. Where the RCA is below 1, we say that the country has a comparative disadvantage. Hence, for example, if a country had a high comparative advantage in a given sector but was exporting very little to the EU, this might indicate barriers to entry in the EU market.

BRCA (Bilateral RCA): The bilateral RCA can be seen as a modified RCA, where rather than having the world as comparator, we compare the export shares of a given country for a given product (eg Jordan) in a particular destination market (the EU), to the export shares of the world for that product in that same destination market – and then this is done across all product lines. Hence the bilateral RCA gives us an indication of how much a given country is exporting to a given market relative to how much the world is exporting to that market. A bilateral RCA above one will tell us for that particular good that Jordan has a revealed comparative advantage in the EU market, relative to the rest of the world. Essentially, the measure shows the RCA (as explained above) but with respect to a given market.

RMA1 (Revealed Market Access): combines the concepts of the RCA and BRCA by dividing the bilateral RCA of a given country with the global RCA of that country. The RMA1 allows us to assess, by product, whether there is any evidence that Jordan's access to the EU market is higher or lower than that suggested by the Jordan's revealed comparative advantage. The intuition behind this indicator is that we suppose that bilateral trade should follow global comparative advantages thus a country should broadly access a given market following its comparative advantage and following the demand that there will be for the given good in that market. An RMA1 below 1 shows us that a given good is not entering the target market at rate suggested by its global revealed comparative advantage. An RMA1 above 1 tells us that the market access for the given good is above that which would be suggested by the indicator of global revealed comparative advantage.

RMA2: With the RMA1 indicator we are comparing market access with respect to all other partners and with respect to our performance in world markets. The alternative is to compare market access into a given economy with the level of access in a comparator economy i.e. is Jordan exporting as much of a given product to the EU as it is to the Rest of the World? To answer this question, we use another measure of revealed market access (RMA2). Here we divide exports to the EU by exports to the rest of the world and normalise this by the economic mass of each destination. Gravity suggests that countries export goods according to the size of the destination market so we would expect that, putting aside differences in tastes across destinations; countries trade patterns should

follow economic mass so that Jordan's exports to the RoW will be bigger by the amount that the RoW is bigger relative to the EU. An RMA2 below 1 will tell us that Jordan is not exporting as much to the EU as it is to the RoW as would be suggested by economic mass.

Where the RMA indicators allow us to investigate differences in exports across destinations or departures from comparative advantages, these can be used to identify sectors where there might be a problem in terms of market access to the EU.

Appendix2 Table 1 Jordan 6-digit sectoral identification

		Share of Export to:				RCA	BRCA	RMA1	RMA2
		World	EU	RoW	3 - 2				
		1	2	3	4	5	6	7	8
611490	Of other textile materials (garnments)	6.46	0.12	6.68	6.56	779.75	46.97	0.0602	0.0015
310290	Other, including mixtures (Nitrogenous Fertilizers)	4.33	0.00	4.48	4.48	1528.68	0.00	0.0000	0.0000
620459	Skirts and divided skirts :--	4.28	0.43	4.41	3.99	307.28	23.87	0.0777	0.0079
610690	Of other textile materials (Women's Blouses)	2.67	0.04	2.77	2.73	428.22	8.76	0.0204	0.0012
280920	Phosphoric acid and polyphosphoric	2.43	0.01	2.52	2.51	108.63	0.79	0.0073	0.0004
070200	Tomatoes, fresh or chilled.	2.50	0.75	2.56	1.81	48.99	10.15	0.2072	0.0238
761290	Other (Aluminium Casks)	1.90	0.17	1.96	1.79	64.49	4.22	0.0655	0.0071
611020	Of cotton (Jerseys, Pullovers)	3.08	1.41	3.14	1.73	25.89	11.04	0.4263	0.0365
300390	Other (Medicaments)	1.81	0.15	1.87	1.72	42.62	3.71	0.0871	0.0064
151620	Vegetable fats and oils	1.64	0.00	1.70	1.70	63.75	0.00	0.0000	0.0000
240290	Other (Cigars, Cigarettes)	1.49	0.00	1.54	1.54	1246.69	0.00	0.0000	0.0000
611420	Of cotton (Other Garments, Knitted or Crocheted)	1.44	0.03	1.49	1.47	137.00	2.88	0.0211	0.0014
610520	Of man-made fibres	1.29	0.00	1.34	1.34	160.78	0.00	0.0000	0.0000
010410	Sheep	1.15	0.00	1.20	1.20	121.94	0.00	0.0000	0.0000
854420	Co-axial cable and other co-axial e	1.04	0.00	1.08	1.08	25.51	0.00	0.0000	0.0000
271000	Petroleum oils and oils obtained fr	1.02	0.00	1.06	1.06	0.26	0.00	0.0000	0.0000
620463	Trousers, bib and brace overalls, b	0.95	0.04	0.98	0.95	30.82	0.91	0.0295	0.0031
610610	Of cotton	1.37	0.50	1.40	0.90	40.49	14.64	0.3615	0.0291
300490	Other	5.17	4.41	5.20	0.79	2.98	1.70	0.5688	0.0688
870210	With compression-ignition internal	0.62	0.00	0.64	0.64	7.37	0.00	0.0000	0.0000
610990	Of other textile materials	0.59	0.00	0.61	0.61	8.84	0.00	0.0004	0.0000
620449	Dresses :-- Of other textile	0.61	0.05	0.63	0.59	60.78	3.71	0.0611	0.0060

	materi								
340120	Soap in other forms	0.64	0.09	0.66	0.57	38.78	3.62	0.0932	0.0110
610711	Underpants and briefs :-- Of cotton	0.54	0.00	0.56	0.56	32.35	0.00	0.0000	0.0000
620439	Jackets and blazers :-- Of other te	0.52	0.03	0.54	0.51	41.54	1.61	0.0387	0.0040
220210	Waters, including mineral waters an	0.49	0.00	0.50	0.50	9.42	0.00	0.0000	0.0000
340290	Other	0.45	0.00	0.46	0.46	13.33	0.02	0.0017	0.0002
310390	Other	0.43	0.01	0.44	0.43	593.66	16.26	0.0274	0.0017
480300	Toilet or facial tissue stock, towe	0.49	0.10	0.51	0.40	23.88	3.55	0.1487	0.0168
283650	Calcium carbonate	0.39	0.02	0.41	0.39	57.13	1.50	0.0263	0.0036
620419	Suits :-- Of other textile material	0.40	0.03	0.41	0.38	112.76	19.89	0.1764	0.0064
620342	Trousers, bib and brace overalls, b	0.36	0.00	0.37	0.37	2.36	0.00	0.0000	0.0000
070930	Aubergines (egg-plants)	0.38	0.03	0.40	0.37	147.59	7.83	0.0530	0.0063
611300	Garments, made up of knitted or cro	0.34	0.00	0.35	0.35	81.30	0.00	0.0000	0.0000
852812	Reception apparatus for television,	0.33	0.00	0.35	0.35	0.60	0.00	0.0000	0.0000
481840	Sanitary towels and tampons, napkin	0.32	0.00	0.33	0.33	4.31	0.00	0.0000	0.0000
210690	Other	0.37	0.07	0.38	0.31	2.39	0.45	0.1895	0.0149
620469	Trousers, bib and brace overalls, b	0.30	0.01	0.31	0.31	11.15	0.23	0.0208	0.0017
481810	Toilet paper	0.29	0.00	0.30	0.30	12.54	0.05	0.0039	0.0005
611010	Of wool or fine animal hair	0.28	0.00	0.30	0.29	6.94	0.00	0.0004	0.0000
282739	Other chlorides:-- Other	0.32	0.05	0.33	0.28	131.37	19.49	0.1484	0.0113
611410	Of wool or fine animal hair	0.27	0.00	0.28	0.28	459.28	0.00	0.0000	0.0000
845012	Machines, each of a dry linen capac	0.27	0.00	0.28	0.28	40.92	0.00	0.0000	0.0000
841510	Window or wall types, self-containe	0.38	0.11	0.39	0.27	5.39	2.46	0.4562	0.0235
230990	Other	0.26	0.00	0.27	0.27	4.45	0.00	0.0000	0.0000
620530	Of man-made fibres	0.26	0.00	0.27	0.27	19.55	0.00	0.0000	0.0000
070700	Cucumbers and gherkins,	1.02	0.76	1.03	0.27	65.68	34.24	0.5214	0.0601

	fresh or ch								
610910	Of cotton	0.26	0.00	0.26	0.26	1.33	0.00	0.0000	0.0000
010420	Goats	0.25	0.00	0.26	0.26	277.16	0.00	0.0000	0.0000
340220	Preparations put up for retail sale	0.25	0.00	0.26	0.26	2.94	0.00	0.0000	0.0000

Appendix2 Table 2 Jordan 2-digit sectoral identification

HS 2 digit	Description	Share X to world (2 digits)	Share of identified 6-digit industry exports, at the 2-digit level to:			3-4
			World	EU	RoW	
		1	2	3	4	5
61	Art of apparel & clothing access,	20.32%	18.60%	2.11%	19.18%	17.08%
62	Art of apparel & clothing access, n	9.97%	7.67%	0.58%	7.92%	7.35%
31	Fertilisers.	11.46%	5.07%	0.10%	5.24%	5.14%
28	Inorgn chem; compds of prec mtl, r	4.99%	3.15%	0.08%	3.26%	3.18%
30	Pharmaceutical products.	7.24%	6.98%	4.56%	7.07%	2.51%
7	Edible vegetables and certain roots	5.32%	3.90%	1.54%	3.99%	2.44%
76	Aluminium and articles thereof.	3.10%	1.90%	0.17%	1.96%	1.79%
15	Animal/veg fats & oils & their clea	2.15%	1.64%	0.00%	1.70%	1.70%
24	Tobacco and manufactured tobacco su	1.53%	1.49%	0.00%	1.54%	1.54%
1	Live animals	1.44%	1.41%	0.00%	1.46%	1.46%
85	Electrical mchy equip parts thereof	2.53%	1.38%	0.00%	1.43%	1.43%
34	Soap, organic surface-active agents	1.40%	1.33%	0.09%	1.37%	1.28%
27	Mineral fuels, oils & product of th	1.03%	1.02%	0.00%	1.06%	1.06%
48	Paper & paperboard; art of paper pu	1.73%	1.11%	0.11%	1.15%	1.04%
87	Vehicles o/t railw/tramw roll-stock	0.70%	0.62%	0.00%	0.64%	0.64%
84	Nuclear reactors, boilers, mchy & m	2.30%	0.65%	0.11%	0.67%	0.56%
22	Beverages, spirits and vinegar.	0.72%	0.49%	0.00%	0.50%	0.50%
21	Miscellaneous edible preparations.	0.50%	0.37%	0.07%	0.38%	0.31%
23	Residues & waste from the food indu	0.27%	0.26%	0.00%	0.27%	0.27%
	TOTAL	78.69%	59.03%	9.51%	60.79%	51.28%

Appendix2 Table 3 Egypt 6-digit sectoral identification

		Share of Export to:				RCA	BRCA	RMA1	RMA2
		World	EU	RoW	3 - 2				
		1	2	3	4	5	6	7	8
252329	Portland cement :-- Other	1.47%	0.02%	2.76%	2.74%	30.00	0.89	0.03	0.02
080510	Oranges	1.18%	0.70%	1.60%	0.90%	40.84	17.07	0.42	0.88
100630	Semi-milled or wholly milled rice,	1.02%	0.01%	1.91%	1.90%	19.23	0.36	0.02	0.01
620342	Trousers, bib and brace overalls, b	1.00%	0.30%	1.61%	1.31%	6.35	1.53	0.24	0.38
721420	Containing indentations, r (Iron and Steel)	0.94%	0.44%	1.39%	0.94%	12.42	6.29	0.51	0.64
271121	In gaseous state :-- Natural gas	0.94%	0.10%	1.68%	1.58%	0.85	0.05	0.06	0.12
620462	Trousers, bib and brace overalls, b	0.90%	0.48%	1.27%	0.79%	5.40	2.69	0.50	0.76
251512	Marble and travertine :-- Merely cu	0.47%	0.08%	0.81%	0.73%	117.08	18.91	0.16	0.20
210690	Other (Food preparations)	0.42%	0.01%	0.78%	0.77%	2.69	0.06	0.02	0.03
611020	Of cotton (Jerseys, Pullovers)	0.41%	0.18%	0.62%	0.44%	2.31	1.18	0.51	0.58
720711	Containing by weight less than 0.25 (Iron and Steel)	0.41%	0.08%	0.69%	0.61%	6.97	1.49	0.21	0.24
570242	Other, of pile construction, (carpets)	0.37%	0.16%	0.56%	0.40%	48.72	21.09	0.43	0.57
270400	Coke and semi-coke of coal, of lign	0.35%	0.16%	0.51%	0.35%	6.45	2.90	0.45	0.64
570320	Of nylon or other polyamides (carpets)	0.34%	0.22%	0.45%	0.23%	14.85	6.59	0.44	0.98
300490	Other (Medicaments)	0.33%	0.02%	0.60%	0.58%	0.20	0.01	0.04	0.07
701810	Glass beads, imitation pearls, imit	0.32%	0.01%	0.59%	0.57%	22.08	2.65	0.12	0.05
610510	Of cotton (Men, Boys shirts)	0.30%	0.17%	0.41%	0.24%	7.08	4.46	0.63	0.85
690890	Other (Ceramic products)	0.30%	0.08%	0.49%	0.41%	3.77	0.93	0.25	0.31
100620	Husked (brown) rice	0.28%	0.05%	0.49%	0.44%	30.49	4.07	0.13	0.19
251010	Unground (natural calcium	0.26%	0.02%	0.48%	0.46%	28.36	2.28	0.08	0.08

	Phosphates i.e. Salt)								
401120	Of a kind used on buses or lorries (Pneumatic tyres)	0.24%	0.14%	0.33%	0.19%	1.91	1.18	0.62	0.86
481840	Sanitary towels and tampons, napkin	0.24%	0.00%	0.46%	0.46%	3.47	0.00	0.00	0.00
854420	Co-axial cable and other co-axial (insulated wire)	0.23%	0.01%	0.43%	0.42%	5.79	0.26	0.04	0.04
040630	Processed cheese, not grated or pow	0.23%	0.00%	0.43%	0.43%	16.11	0.01	0.00	0.00
480300	Toilet or facial tissue stock, towe	0.23%	0.13%	0.32%	0.19%	11.42	4.35	0.38	0.79
730890	Other (Structures, articles of iron and steel)	0.21%	0.05%	0.36%	0.31%	1.53	0.34	0.22	0.28
271600	Electrical energy. (optional headin	0.19%	0.00%	0.36%	0.36%	0.73	0.00	0.00	0.00
252321	Portland cement :-- White cement, w	0.19%	0.00%	0.35%	0.35%	39.70	0.56	0.01	0.01
940600	Prefabricated buildings.	0.16%	0.01%	0.29%	0.28%	3.47	0.15	0.04	0.05
841510	Window or wall types, self-containe	0.15%	0.02%	0.27%	0.26%	2.53	0.40	0.16	0.13
490199	Other (Printed Books)	0.14%	0.02%	0.25%	0.24%	1.17	0.13	0.11	0.12
732111	Cooking appliances and plate warmer	0.14%	0.00%	0.26%	0.26%	4.52	0.00	0.00	0.00
040690	Other cheese	0.14%	0.00%	0.26%	0.26%	1.36	0.00	0.00	0.00
170199	Other (cane or beet sugar)	0.14%	0.00%	0.26%	0.26%	2.00	0.00	0.00	0.00
721310	Containing indentations, (Iron and Steel)	0.13%	0.00%	0.25%	0.25%	18.80	0.00	0.00	0.00
251020	Ground (natural calcium Phosphates i.e. Salt)	0.13%	0.00%	0.24%	0.24%	19.22	0.00	0.00	0.00
720890	Other (Iron and Steel)	0.12%	0.00%	0.23%	0.23%	8.10	0.26	0.03	0.02
721510	Of free-cutting steel, not further (Iron and Steel)	0.12%	0.00%	0.22%	0.22%	16.72	0.00	0.00	0.00
730820	Towers and lattice masts (articles of Iron and Steel)	0.11%	0.00%	0.21%	0.21%	7.82	0.00	0.00	0.00
610343	Trousers, bib and brace overalls, b	0.11%	0.03%	0.18%	0.15%	11.90	5.86	0.49	0.32
620920	Of cotton (Babies garments)	0.10%	0.01%	0.19%	0.18%	6.60	0.41	0.06	0.09
340220	Preparations put up for retail sale (Organic, surface-acting agents i.e. Soap)	0.10%	0.01%	0.18%	0.18%	1.27	0.05	0.04	0.06

854519	Electrodes :-- Other	0.10%	0.00%	0.18%	0.18%	13.79	0.00	0.00	0.00
200410	Potatoes	0.09%	0.01%	0.17%	0.16%	3.29	0.19	0.06	0.08
391590	Of other plastics (Waste plastics)	0.08%	0.00%	0.15%	0.15%	2.69	0.00	0.00	0.00

Appendix2 Table 4 Egypt 2-digit sectoral identification

HS 2 digit	Description	Share X to world (2 digits)	Share of identified 6-digit industry exports, at the 2-digit level to:			3-4
			World	EU	RoW	
		1	2	3	4	5
25 Total	Salt; sulphur; earth & ston; plaste	3.90%	2.52%	0.12%	4.64%	4.52%
10 Total	Cereals	1.54%	1.30%	0.05%	2.40%	2.35%
27 Total	Mineral fuels, oils & product of th	47.80%	1.48%	0.26%	2.56%	2.29%
62 Total	Art of apparel & clothing access, n	2.87%	2.00%	0.79%	3.07%	2.28%
72 Total	Iron and steel.	7.03%	1.72%	0.53%	2.78%	2.26%
8 Total	Edible fruit and nuts; peel of citr	1.95%	1.18%	0.70%	1.60%	0.90%
61 Total	Art of apparel & clothing access,	3.32%	0.82%	0.38%	1.21%	0.83%
73 Total	Articles of iron or steel.	1.00%	0.47%	0.05%	0.83%	0.78%
21 Total	Miscellaneous edible preparations.	0.57%	0.42%	0.01%	0.78%	0.77%
4 Total	Dairy prod; birds' eggs; natural ho	0.41%	0.37%	0.00%	0.69%	0.69%
48 Total	Paper & paperboard; art of paper pu	0.73%	0.47%	0.13%	0.78%	0.65%
57 Total	Carpets and other textile floor co	1.20%	0.71%	0.38%	1.01%	0.63%
85 Total	Electrical mchy equip parts thereof	1.91%	0.33%	0.01%	0.61%	0.60%
30 Total	Pharmaceutical products.	0.69%	0.33%	0.02%	0.60%	0.58%
70 Total	Glass and glassware.	0.51%	0.32%	0.01%	0.59%	0.57%
69 Total	Ceramic products.	0.78%	0.30%	0.08%	0.49%	0.41%
94 Total	Furniture; bedding, mattress, matt	0.68%	0.16%	0.01%	0.29%	0.28%
17 Total	Sugars and sugar confectionery.	0.44%	0.14%	0.00%	0.26%	0.26%
84 Total	Nuclear reactors, boilers, mchy & m	1.45%	0.15%	0.02%	0.27%	0.26%
49 Total	Printed books, newspapers, pictures	0.17%	0.14%	0.02%	0.25%	0.24%
40 Total	Rubber and articles thereof.	0.33%	0.24%	0.14%	0.33%	0.19%
34 Total	Soap, organic surface-active agents	0.31%	0.10%	0.01%	0.18%	0.18%
20 Total	Prep of vegetable, fruit, nuts or o	0.32%	0.09%	0.01%	0.17%	0.16%
39 Total	Plastics and articles thereof.	2.29%	0.08%	0.00%	0.15%	0.15%

	TOTAL	82.20%	15.81%	3.71%	26.54%	22.83%	

Appendix2 Table 5 Israel 6-digit sectoral identification

		Share of Export to:				RCA	BRCA	RMA1	RMA2
		World	EU	RoW	3 - 2				
		1	2	3	4	5	6	7	8
710239	Non-industrial :-- Other	31.93%	13.49%	38.63%	25.14%	87.20	82.58	0.95	0.29
300490	Other (Medicaments)	6.76%	2.56%	8.29%	5.73%	3.90	0.99	0.25	0.26
880330	Other parts of aeroplanes or helico	2.09%	0.00%	2.86%	2.86%	5.42	0.00	0.00	0.00
300390	Other (Medicaments)	0.44%	0.01%	0.59%	0.59%	10.30	0.14	0.01	0.01
903180	Other instruments, appliances (measuring or checking instruments)	0.69%	0.40%	0.79%	0.39%	6.10	4.18	0.68	0.42
290890	Other (organic chemicals)	0.50%	0.30%	0.57%	0.28%	188.72	184.04	0.98	0.43
903039	Other instruments and apparatus, fo	0.28%	0.08%	0.35%	0.27%	15.70	5.70	0.36	0.18
730890	Other (structures, articles of iron and steel)	0.36%	0.16%	0.43%	0.27%	1.95	0.81	0.42	0.31
852520	Transmission apparatus incorporatin	1.01%	0.81%	1.08%	0.27%	0.61	0.39	0.64	0.62
610822	Briefs and panties :-- Of man-made	0.20%	0.00%	0.27%	0.27%	10.16	0.10	0.01	0.01
852510	Transmission apparatus	0.26%	0.06%	0.33%	0.26%	9.08	3.50	0.39	0.16
901380	Other devices, appliances and instr	0.21%	0.08%	0.26%	0.18%	0.61	0.54	0.88	0.27
292249	Amino-acids and their esters, other	0.13%	0.00%	0.17%	0.17%	4.89	0.04	0.01	0.01
902290	Other, including parts and accessor	0.81%	0.69%	0.85%	0.17%	16.43	13.39	0.81	0.66
720449	Other waste and scrap :-- Other	0.16%	0.04%	0.20%	0.16%	1.12	0.27	0.24	0.16
710399	Otherwise worked :-- Other	0.16%	0.06%	0.19%	0.13%	22.29	21.75	0.98	0.27
300420	Containing other antibiotics	0.09%	0.00%	0.12%	0.12%	0.95	0.00	0.00	0.00
847981	Other machines and mechanical appli	0.09%	0.01%	0.12%	0.12%	7.99	1.09	0.14	0.05
820780	Tools for turning	0.08%	0.00%	0.11%	0.11%	22.22	0.41	0.02	0.01
870829	Other parts and accessories	0.09%	0.02%	0.12%	0.11%	0.23	0.04	0.16	0.11

	of bodi								
847340	Parts and accessories of the machin	0.15%	0.07%	0.17%	0.11%	6.88	3.39	0.49	0.33
841590	Parts	0.15%	0.08%	0.18%	0.10%	2.06	1.13	0.55	0.35
630231	Other bed linen :-- Of cotton	0.08%	0.01%	0.11%	0.10%	3.04	0.44	0.15	0.08
853339	Wirewound variable resistors, inclu	0.12%	0.04%	0.14%	0.10%	109.39	84.94	0.78	0.25
271000	Petroleum oils and oils obtained fr	0.10%	0.03%	0.12%	0.10%	0.03	0.01	0.32	0.18
610819	Slips and petticoats :-- Of other t	0.07%	0.01%	0.09%	0.08%	78.46	12.35	0.16	0.06
294150	Erythromycin and its derivatives; s	0.06%	0.00%	0.08%	0.08%	6.03	0.00	0.00	0.00
850450	Other inductors	0.11%	0.06%	0.13%	0.08%	2.68	2.11	0.79	0.36
691490	Other	0.05%	0.00%	0.07%	0.07%	6.25	0.01	0.00	0.00
901819	Electro-diagnostic apparatus (inclu	0.92%	0.86%	0.94%	0.07%	15.59	15.22	0.98	0.76
291890	Other	0.05%	0.00%	0.07%	0.07%	5.34	0.35	0.07	0.04
481910	Cartons, boxes and cases, of corrug	0.06%	0.00%	0.07%	0.07%	1.23	0.09	0.07	0.05
902890	Parts and accessories	0.05%	0.00%	0.07%	0.06%	5.45	0.52	0.09	0.06
844329	Letterpress printing machinery, exc	0.05%	0.01%	0.07%	0.06%	47.84	10.60	0.22	0.08
640399	Other footwear :-- Other	0.06%	0.02%	0.08%	0.06%	0.37	0.07	0.19	0.17
845939	Other boring-milling machines :-- O	0.05%	0.00%	0.06%	0.06%	49.18	4.76	0.10	0.03
880230	Aeroplanes and other aircraft, of a	0.05%	0.00%	0.06%	0.06%	0.33	0.00	0.00	0.00
847090	Other	0.10%	0.06%	0.12%	0.06%	18.32	10.72	0.59	0.40
630221	Other bed linen, printed :-- Of cot	0.05%	0.01%	0.06%	0.06%	3.50	0.28	0.08	0.07
711590	Other	0.04%	0.00%	0.06%	0.06%	2.28	0.03	0.01	0.00
903089	Other instruments and apparatus :--	0.06%	0.02%	0.07%	0.05%	2.63	2.00	0.76	0.22
711790	Other	0.12%	0.08%	0.13%	0.05%	13.39	8.92	0.67	0.50
903110	Machines for balancing mechanical p	0.04%	0.00%	0.05%	0.05%	9.47	0.26	0.03	0.01
711411	Of precious metal whether or not pl	0.04%	0.00%	0.05%	0.05%	12.32	0.26	0.02	0.01

610910	Of cotton	0.05%	0.01%	0.06%	0.05%	0.26	0.05	0.18	0.16

Appendix2 Table 6 Israel 2-digit sectoral identification

HS 2 digit	Description	Share X to world (2 digits)	Share of identified 6-digit industry exports, at the 2-digit level to:			3-4
			World	EU	RoW	
		1	2	3	4	5
71 Total	Natural/cultured pearls, prec stone	40.98%	32.29%	13.63%	39.07%	25.44%
88 Total	Aircraft, spacecraft, and parts the	2.37%	2.14%	0.00%	2.92%	2.92%
90 Total	Optical, photo, cine, meas, checkin	5.45%	3.06%	2.14%	3.39%	1.25%
85 Total	Electrical mchy equip parts thereof	9.93%	1.49%	0.98%	1.68%	0.71%
29 Total	Organic chemicals.	2.99%	0.74%	0.30%	0.90%	0.60%
61 Total	Art of apparel & clothing access,	0.92%	0.31%	0.02%	0.42%	0.40%
73 Total	Articles of iron or steel.	1.07%	0.36%	0.16%	0.43%	0.27%
72 Total	Iron and steel.	0.35%	0.16%	0.04%	0.20%	0.16%
82 Total	Tool, implement, cutlery, spoon & f	1.71%	0.08%	0.00%	0.11%	0.11%
27 Total	Mineral fuels, oils & product of th	0.11%	0.10%	0.03%	0.12%	0.10%
69 Total	Ceramic products.	0.11%	0.05%	0.00%	0.07%	0.07%
48 Total	Paper & paperboard; art of paper pu	0.28%	0.06%	0.00%	0.07%	0.07%
39 Total	Plastics and articles thereof.	4.53%	0.33%	0.35%	0.32%	-0.03%
		70.81%	41.16%	17.65%	49.71%	32.06%

Appendix2 Table 7 Morocco 6-digit sectoral identification

		Share of Export to:				RCA	BRCA	RMA1	RMA2
		World	EU	RoW	3 - 2				
		1	2	3	4	5	6	7	8
280920	Phosphoric acid and polyphosphoric	7.94%	2.98%	21.21%	18.23%	354.55	180.65	0.51	0.86
251010	Unground	4.35%	1.69%	11.46%	9.77%	565.44	349.34	0.62	0.90
310530	Diammonium hydrogenorthophosphate (	1.91%	0.78%	4.94%	4.16%	136.51	72.10	0.53	0.96
310540	Ammonium dihydrogenorthophosphate (	1.25%	0.48%	3.32%	2.85%	163.62	72.18	0.44	0.87
040630	Processed cheese, not grated or pow	0.78%	0.00%	2.85%	2.85%	46.23	0.00	0.00	0.00
310310	Superphosphates	0.93%	0.37%	2.43%	2.05%	142.80	102.40	0.72	0.94
710691	Other :-- Unwrought	0.64%	0.13%	1.99%	1.86%	8.84	2.42	0.27	0.40
030371	Other fish, excluding livers and ro	0.26%	0.06%	0.77%	0.71%	117.90	43.91	0.37	0.50
110100	Wheat or meslin flour.	0.19%	0.00%	0.70%	0.70%	9.66	0.00	0.00	0.00
710812	Non-monetary :-- Other unwrought fo	0.16%	0.00%	0.60%	0.60%	0.54	0.00	0.00	0.00
210111	Extracts, essences and concentrates	0.17%	0.02%	0.58%	0.56%	6.27	0.57	0.09	0.20
251110	Natural barium sulphate (barytes)	0.22%	0.08%	0.59%	0.51%	79.25	63.86	0.81	0.85
340220	Preparations put up for retail sale	0.12%	0.00%	0.46%	0.46%	1.48	0.00	0.00	0.00
252921	Fluorspar :-- Containing by weight	0.15%	0.04%	0.44%	0.41%	116.01	29.27	0.25	0.48
121220	Seaweeds and other algae	0.15%	0.04%	0.44%	0.40%	36.02	24.84	0.69	0.55
911012	Of watches :-- Incomplete movements	0.10%	0.00%	0.36%	0.36%	327.05	0.00	0.00	0.00
854459	Other electric conductors, for a vo	0.11%	0.01%	0.37%	0.36%	0.87	0.06	0.07	0.16
481840	Sanitary towels and tampons, napkin	0.09%	0.00%	0.32%	0.32%	1.15	0.00	0.00	0.00
740321	Copper alloys :-- Copper-zinc base	0.08%	0.01%	0.25%	0.24%	11.76	1.34	0.11	0.25

721499	Other	0.07%	0.00%	0.24%	0.24%	2.69	0.01	0.00	0.01
151219	Sunflower-seed or safflower oil and	0.06%	0.00%	0.23%	0.23%	4.83	0.00	0.00	0.00
490700	Unused postage, revenue or similar	0.06%	0.00%	0.23%	0.23%	3.97	0.00	0.00	0.00
030229	Salmonidae, excluding livers and ro	0.06%	0.00%	0.23%	0.23%	28.95	0.19	0.01	0.02
854160	Mounted piezo-electric crystals	0.08%	0.03%	0.22%	0.19%	2.10	1.30	0.62	0.82
220290	Other	0.08%	0.03%	0.21%	0.18%	1.93	0.43	0.22	0.79
621430	Of synthetic fibres	0.04%	0.00%	0.16%	0.16%	7.80	0.27	0.03	0.06
200290	Other	0.05%	0.01%	0.16%	0.15%	3.16	0.61	0.19	0.40
551449	Printed :-- Other woven fabrics	0.03%	0.00%	0.12%	0.12%	83.16	0.33	0.00	0.00
870422	Other, with compression-ignition in	0.03%	0.00%	0.11%	0.11%	0.18	0.00	0.00	0.00
320890	Other	0.03%	0.00%	0.11%	0.11%	0.61	0.01	0.02	0.03
481930	Sacks and bags, having a base of a	0.03%	0.00%	0.11%	0.11%	6.17	0.56	0.09	0.17

Appendix2 Table 8 Morocco 2-digit sectoral identification

HS 2 digit	Description	Share X to world (2 digits)	Share of identified 6-digit industry exports, at the 2-digit level to:			3-4
			World	EU	RoW	
		1	2	3	4	5
28 Total	Inorgn chem; compds of prec mtl, r	8.17%	7.94%	2.98%	21.21%	18.23%
25 Total	Salt; sulphur; earth & ston; plaste	5.01%	4.72%	1.81%	12.50%	10.69%
4 Total	Dairy prod; birds' eggs; natural ho	0.79%	0.78%	0.00%	2.85%	2.85%
3 Total	Fish & crustacean, mollusc & other	5.50%	0.32%	0.06%	1.00%	0.94%
21 Total	Miscellaneous edible preparations.	0.33%	0.17%	0.02%	0.58%	0.56%
34 Total	Soap, organic surface-active agents	0.15%	0.12%	0.00%	0.46%	0.46%
12 Total	Oil seed, oleagi fruits; miscell gr	0.63%	0.15%	0.04%	0.44%	0.40%
74 Total	Copper and articles thereof.	0.90%	0.08%	0.01%	0.25%	0.24%
15 Total	Animal/veg fats & oils & their clea	0.91%	0.06%	0.00%	0.23%	0.23%
22 Total	Beverages, spirits and vinegar.	0.18%	0.08%	0.03%	0.21%	0.18%
62 Total	Art of apparel & clothing access, n	19.19%	0.04%	0.00%	0.16%	0.16%
20 Total	Prep of vegetable, fruit, nuts or o	1.10%	0.05%	0.01%	0.16%	0.15%
87 Total	Vehicles o/t railw/tramw roll-stock	0.94%	0.03%	0.00%	0.11%	0.11%
	Total	43.80%	14.54%	4.96%	40.15%	35.19%

Appendix2 Table 9 Tunisia 6-digit sectoral identification

		Share of Export to:				RCA	BRCA	RMA1	RMA2
		World	EU	RoW	3 - 2				
		1	2	3	4	5	6	7	8
271000	Petroleum oils and oils obtained fr	2.93%	0.99%	9.48%	8.49%	0.75	0.29	0.38	0.81
280920	Phosphoric acid and polyphosphoric	2.04%	0.51%	7.23%	6.73%	91.08	30.66	0.34	0.54
151529	Maize (corn) oil and its fractions	0.99%	0.00%	4.34%	4.34%	206.78	0.03	0.00	0.00
310310	Superphosphates	1.29%	0.35%	4.47%	4.11%	197.48	96.41	0.49	0.61
283531	Polyphosphates:-- Sodium triphospha	0.64%	0.01%	2.78%	2.77%	88.49	3.66	0.04	0.03
854459	Other electric conductors, for a vo	0.81%	0.29%	2.59%	2.31%	6.54	1.84	0.28	0.86
252329	Portland cement :-- Other	0.53%	0.12%	1.93%	1.81%	10.78	3.74	0.35	0.46
481840	Sanitary towels and tampons, napkin	0.41%	0.00%	1.80%	1.79%	5.51	0.05	0.01	0.02
711319	Of precious metal whether or not pl	0.42%	0.01%	1.79%	1.78%	1.51	0.11	0.07	0.06
282612	Fluorides:-- Of aluminium	0.34%	0.08%	1.25%	1.18%	213.46	173.77	0.81	0.47
200290	Other	0.25%	0.01%	1.07%	1.06%	15.50	0.30	0.02	0.04
190219	Uncooked pasta, not stuffed or othe	0.21%	0.00%	0.91%	0.91%	11.47	0.06	0.00	0.01
283526	Phosphates:-- Other phosphates of c	0.21%	0.00%	0.90%	0.90%	51.49	0.00	0.00	0.00
690890	Other	0.29%	0.11%	0.89%	0.78%	3.45	1.25	0.36	0.95
151710	Margarine, excluding liquid margari	0.17%	0.00%	0.74%	0.74%	16.10	0.03	0.00	0.00
220290	Other	0.20%	0.04%	0.71%	0.66%	4.99	0.71	0.14	0.48
040630	Processed cheese, not grated or pow	0.14%	0.00%	0.62%	0.62%	8.45	0.00	0.00	0.00
180632	Other, in blocks, slabs or bars :--	0.14%	0.00%	0.62%	0.62%	6.82	0.00	0.00	0.00
252321	Portland cement :-- White cement, w	0.15%	0.01%	0.60%	0.58%	35.27	3.92	0.11	0.19
871639	Other trailers and semi-	0.13%	0.02%	0.48%	0.45%	1.80	0.26	0.14	0.38

	trailers fo								
401120	Of a kind used on buses or lorries	0.10%	0.00%	0.43%	0.43%	0.68	0.01	0.01	0.02
401199	Other	0.10%	0.02%	0.39%	0.37%	3.54	0.78	0.22	0.32
252020	Plasters	0.08%	0.00%	0.37%	0.37%	17.77	0.02	0.00	0.00
681099	Other articles :-- Other	0.09%	0.01%	0.37%	0.36%	7.73	0.52	0.07	0.15
721710	Not plated or coated, whether or no	0.08%	0.00%	0.36%	0.36%	3.75	0.03	0.01	0.02
481910	Cartons, boxes and cases, of corrug	0.09%	0.00%	0.36%	0.35%	1.88	0.09	0.05	0.11
480300	Toilet or facial tissue stock, towe	0.10%	0.02%	0.37%	0.35%	4.76	0.62	0.13	0.38
330510	Shampoos	0.08%	0.00%	0.35%	0.35%	3.24	0.15	0.05	0.09
110100	Wheat or meslin flour.	0.08%	0.00%	0.34%	0.34%	3.98	0.00	0.00	0.00
230990	Other	0.07%	0.00%	0.32%	0.32%	1.25	0.00	0.00	0.00
730690	Other	0.08%	0.00%	0.33%	0.32%	6.66	0.28	0.04	0.05
890200	Fishing vessels; factory ships and	0.08%	0.01%	0.33%	0.32%	14.80	2.34	0.16	0.17
320910	Based on acrylic or vinyl polymers	0.07%	0.00%	0.32%	0.32%	3.82	0.01	0.00	0.01
190530	Sweet biscuits; waffles and wafers	0.08%	0.01%	0.32%	0.31%	1.37	0.12	0.09	0.24
283650	Calcium carbonate	0.06%	0.00%	0.27%	0.27%	8.83	0.00	0.00	0.00
902890	Parts and accessories	0.06%	0.00%	0.25%	0.25%	6.05	0.02	0.00	0.01
190240	Couscous	0.06%	0.00%	0.25%	0.24%	94.51	1.67	0.02	0.05

Appendix2 Table 10 Tunisia 2-digit sectoral identification

HS 2 digit	Description	Share X to world (2 digits)	Share of identified 6-digit industry exports, at the 2-digit level to:			3-4
			World	EU	RoW	
		1	2	3	4	5
28 Total	Inorgn chem; compds of prec mtl, r	3.50%	3.29%	0.59%	12.44%	11.85%
15 Total	Animal/veg fats & oils & their clea	6.77%	1.16%	0.00%	5.09%	5.08%
25 Total	Salt; sulphur; earth & ston; plaste	1.23%	0.76%	0.13%	2.89%	2.76%
48 Total	Paper & paperboard; art of paper pu	1.00%	0.60%	0.03%	2.52%	2.49%
71 Total	Natural/cultured pearls, prec stone	0.53%	0.42%	0.01%	1.79%	1.78%
20 Total	Prep of vegetable, fruit, nuts or o	0.32%	0.25%	0.01%	1.07%	1.06%
40 Total	Rubber and articles thereof.	0.67%	0.20%	0.02%	0.82%	0.80%
69 Total	Ceramic products.	0.61%	0.29%	0.11%	0.89%	0.78%
4 Total	Dairy prod; birds' eggs; natural ho	0.17%	0.14%	0.00%	0.62%	0.62%
87 Total	Vehicles o/t railw/tramw roll-stock	2.68%	0.13%	0.02%	0.48%	0.45%
72 Total	Iron and steel.	1.54%	0.08%	0.00%	0.36%	0.36%
11 Total	Prod.mill.indust; malt; starches;	0.12%	0.08%	0.00%	0.34%	0.34%
23 Total	Residues & waste from the food indu	0.14%	0.07%	0.00%	0.32%	0.32%
73 Total	Articles of iron or steel.	1.32%	0.08%	0.00%	0.33%	0.32%
32 Total	Tanning/dyeing extract; tannins &	0.18%	0.07%	0.00%	0.32%	0.32%
	Total	20.76%	7.62%	0.92%	30.28%	29.36%

APPENDIX 3

Appendix3 Table 1 Previous gravity studies on potential EU-Med and intra-Med trade flows.

<table>
<tr><td>Authors</td><td>Sample and estimation technique</td><td>Main findings</td><td>Potential Trade Flows of EuroMed countries to the EU and within the region</td></tr>
<tr><td>Péridy (2005a)</td><td>Algeria, Marocco, Tunisia, Egypt, Jordan with 42 main trading partners over 1975-2001 period Hausman-Taylor and Arelano-Bond-Bover, potential flows estimated using out-of-sample technique</td><td>Trade close to potential between the MENA countries due to the lack of trade complementarity and low GDP levels.</td><td>TABLE VI
ESTIMATIONS OF ACTUAL/POTENTIAL EXPORT RATIOS
<table><tr><th>From\To</th><th>Algeria</th><th>Morocco</th><th>Tunisia</th><th>Egypt</th><th>Jordan</th></tr><tr><td>Algeria</td><td>—</td><td>1.180</td><td>1.290</td><td>1.140</td><td>1.080</td></tr><tr><td>Morocco</td><td>0.880</td><td>—</td><td>1.080</td><td>1.210</td><td>1.130</td></tr><tr><td>Tunisia</td><td>0.960</td><td>0.920</td><td>—</td><td>1.030</td><td>0.980</td></tr><tr><td>Egypt</td><td>0.880</td><td>0.630</td><td>0.790</td><td>—</td><td>0.620</td></tr><tr><td>Jordan</td><td>0.960</td><td>1.010</td><td>0.930</td><td>0.820</td><td>—</td></tr></table></td></tr>
</table>

Péridy (2005b)	65 EU15 partners covering 95% of EU imports over 1993-2003 period Hausman-Taylor model, potential flows estimated using out-of-sample technique	EuroMed countries' trade potential with the EU is substantial, however Israel seems to have reached its potential trade levels. Export Pot. (1) and (2) assume EuroMed countries trade as much as if they were EU15 members. Export Pot. (3) is based on the gravity equation for non-EU countries as exporters. Finally Export Pot. (4) includes all countries in the gravity equation, thereby reducing substantially export potential.	Table 6 : NNCs' export potential to the EU (*)

Table 6 : NNCs' export potential to the EU (*)

	Actual exports to the EU-15 million US$ (2003)	Export Pot. (1) out-sample WEI-1 (%)	Export Pot. (2) out-sample WEI-2 (%)	Export Pot. (3) out-sample No WEI (%)	Export Pot. (4) *in-sample* %
Russia	48038.3	14.2	11.7	4.7	*7.5*
Belarus	957.2	50.1	50.9	45.5	*40.6*
Ukraine	3314,0	37.1	36.3	30.2	*28,0*
Moldova	265.8	61,0	62.6	57.9	*43.6*
Israel	7269.1	-0.8	-0.9	-5,0	*-26.2*
Algeria	13483.2	24.4	23.6	18.1	*8.2*
Morocco	6153.5	17.6	17.3	12.1	*-3,0*
Tunisia	6169.2	17.3	17.6	11.5	*-7.6*
Syria	2631.4	28.3	29.2	26.4	*4.5*
Egypt	2977.9	27.8	27.1	24.2	*13.3*
Jordan	144.2	54.1	55.6	53.8	*30.6*
Lebanon	197.3	48.9	50.8	47.9	*23.2*
Libya	10118.1	5,0	6.9	-2.7	*-24.6*
Azerbaijan	980.4	60.8	62.2	59.3	*46.1*
Armenia	319.9	68.9	70.8	68.4	*52.4*
Georgia	168.3	66.3	67.8	65.2	*51.9*

[*]) Difference between fitted and actual exports as a percentage of fitted exports.

Ferragina, Giovannetti, Pastore (2005)	EU 13 (no Belgium and Luxembourg) over 1995-2002 Panel estimates based on random, between and within effects models, potential flows estimated using out-of-sample technique	Significant potential for the growth of exports and imports of the EuroMed countries however projected growth slow due to low growth rates, lack of production diversification and slow progress in reducing barriers to trade. At the projected growth rates, EuroMed countries could reach their potential levels of trade with the EU in about 40 years.	**Table 2:** ***Projected export and import annual growth rates (in %age).***

	Projected GDP per capita annual growth rates 2003-07	France		Germany		Italy		Spain		UK		EU	
CEEC		E[1]	M[2]	E	M	E	M	E	M	E	M	E	M
Bulgaria	8,2	9,7	6,4	9,4	5,7	9,6	6,1	10,2	7,3	10,0	7,0	9,8	6,5
Estonia	5,8	7,2	5,1	6,8	4,5	7,0	4,9	7,6	6,0	7,5	5,7	7,2	5,2
Hungary[3]	3,9	5,1	4,1	4,8	3,4	5,0	3,9	5,6	5,0	5,5	4,7	5,2	4,2
Latvia	6,8	8,2	5,6	7,9	5,0	8,1	5,4	8,7	6,6	8,5	6,3	8,3	5,8
Lithuania	6,6	8,0	5,5	7,7	4,9	7,9	5,3	8,5	6,5	8,3	6,1	8,1	5,7
Poland	3,2	4,4	3,7	4,1	3,1	4,3	3,5	4,9	4,7	4,7	4,3	4,5	3,9
Romania	5	6,3	4,7	6,0	4,0	6,2	4,5	6,8	5,6	6,6	5,3	6,4	4,8
Slovenia[3]	4,1	5,4	4,2	5,0	3,6	5,2	4,0	5,8	5,1	5,7	4,8	5,4	4,3
The Czech Republic[3]	2,1	3,2	3,1	2,9	2,5	3,1	2,9	3,7	4,1	3,6	3,8	3,3	3,3
The Slovak Republic	3,8	5,0	4,0	4,7	3,4	4,9	3,8	5,5	5,0	5,4	4,7	5,1	4,2
MED-11													
Algeria	4,1	5,4	4,2	5,0	3,6	5,2	4,0	5,8	5,1	5,7	4,8	5,4	4,3
Cyprus[3]	3,3	4,5	3,8	4,2	3,1	4,4	3,6	5,0	4,7	4,8	4,4	4,6	3,9
Jordan	3	4,2	3,6	3,9	3,0	4,1	3,4	4,7	4,6	4,5	4,2	4,3	3,8
Egypt[3]	2,6	3,8	3,4	3,4	2,8	3,7	3,2	4,2	4,3	4,1	4,0	3,8	3,5
Israel	1	2,1	2,5	1,7	1,9	2,0	2,3	2,5	3,5	2,4	3,2	2,1	2,7
Lebanon	0,7	1,7	2,4	1,4	1,7	1,6	2,2	2,2	3,3	2,1	3,0	1,8	2,5
Malta[3]	6,6	8,0	5,5	7,7	4,9	7,9	5,3	8,5	6,5	8,3	6,1	8,1	5,7
Morocco	1,5	2,6	2,8	2,3	2,2	2,5	2,6	3,1	3,8	2,9	3,4	2,7	3,0
Syria	1,5	2,6	2,8	2,3	2,2	2,5	2,6	3,1	3,8	2,9	3,4	2,7	3,0
Tunisia	4	5,2	4,1	4,9	3,5	5,1	3,9	5,7	5,1	5,6	4,8	5,3	4,3
Turkey	4,1	5,4	4,2	5,0	3,6	5,2	4,0	5,8	5,1	5,7	4,8	5,4	4,3

Notes: [1] Projected growth rates of exports; [2] Projected growth rates of imports; [3] Based on average incomes growth rates 1993-03, assuming zero population growth.
Source: Own elaboration on World Bank projected annual growth rates of per capita GDP.

<table>
<tr>
<td>Nuget and Yosef (2005)</td>
<td>Each pair of countries in world trade over 1970-1992.
Panel regressions</td>
<td>In 1992 MENA were underachievers in international trade, especially with respect to the intra-MENA trade. Intra-MENA trade could increase substantially as a result of an FTA among MENA countries (column 3), and trade with the EU has also a strong growth potential following a successful conclusion of an FTA (column 4).</td>
<td>
Table 11: Comparisons of Actual and Predicted Levels of Bilateral Trade Flows Aggregated into Regions Under Different Modelling Assumptions and Trade Policy Scenarios Total Trade
<table>
<tr><th>Region</th><th>Year</th><th>No. Obs.</th><th>Actual</th><th colspan="4">Predicted</th></tr>
<tr><th></th><th></th><th></th><th>(1)</th><th>(2) Oil and OneFTA and CU Dummies Included</th><th>(3) Same as (2) but with MENA FTA</th><th>(4) Same as (2) but with EU-Med FTA but no MENA FTA</th><th>(5) Same as (4) but with MENA FTA as well</th></tr>
<tr><td>MENA</td><td>80</td><td>130</td><td>26,454</td><td>9576</td><td>21,347</td><td>9576</td><td>21,346</td></tr>
<tr><td></td><td>85</td><td>109</td><td>7007</td><td>9040</td><td>20,153</td><td>9040</td><td>20,154</td></tr>
<tr><td></td><td>90</td><td>120</td><td>6736</td><td>7623</td><td>16,694</td><td>7623</td><td>16,994</td></tr>
<tr><td></td><td>92</td><td>86</td><td>6337</td><td>9465</td><td>21,000</td><td>9465</td><td>21,100</td></tr>
<tr><td>EU</td><td>80</td><td>246</td><td>314,313</td><td>74143</td><td>77,400</td><td>172,550</td><td>172,550</td></tr>
<tr><td></td><td>85</td><td>241</td><td>96,930</td><td>82780</td><td>86,512</td><td>192,865</td><td>192,865</td></tr>
<tr><td></td><td>90</td><td>234</td><td>75,777</td><td>97445</td><td>102,554</td><td>228,626</td><td>228,626</td></tr>
<tr><td></td><td>92</td><td>236</td><td>83,420</td><td>114136</td><td>120,156</td><td>267,867</td><td>267,867</td></tr>
</table>
</td>
</tr>
<tr>
<td>Söderling (2005)</td>
<td>90 countries, covering 90% of world trade
Radom effects Tobit model, Hausman-Taylor and fixed effects, out-of-sample estimates and panel with country-pair specific effects</td>
<td>Most EuroMed countries' exports surpass model predictions. Egypt, Marocco and Jordan tend to under export to large EU countries. Tunisia's exports exceed potential in all EU countries.</td>
<td>
Table 2. Estimated Trade Potentials (percent of GDP unless otherwise indicated)
<table>
<tr><th></th><th colspan="2">Algeria</th><th colspan="2">Egypt</th><th colspan="2">Jordan</th><th colspan="2">Morocco</th><th colspan="2">Syria</th><th colspan="2">Tunisia</th></tr>
<tr><th></th><th>Country</th><th>Export potential</th><th>Country</th><th>Export potential</th><th>Country</th><th>Export potential</th><th>Country</th><th>Export potential</th><th>Country</th><th>Export potential</th><th>Country</th><th>Export potential</th></tr>
<tr><td>EU</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Total export potential</td><td></td><td>-21.6</td><td></td><td>-0.1</td><td></td><td>3.5</td><td></td><td>4.5</td><td></td><td>-12.3</td><td></td><td>-13.8</td></tr>
<tr><td>Actual/predicted exports</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Unweighted average</td><td></td><td>495.7</td><td></td><td>169.1</td><td></td><td>47.7</td><td></td><td>103.0</td><td></td><td>276.0</td><td></td><td>167.4</td></tr>
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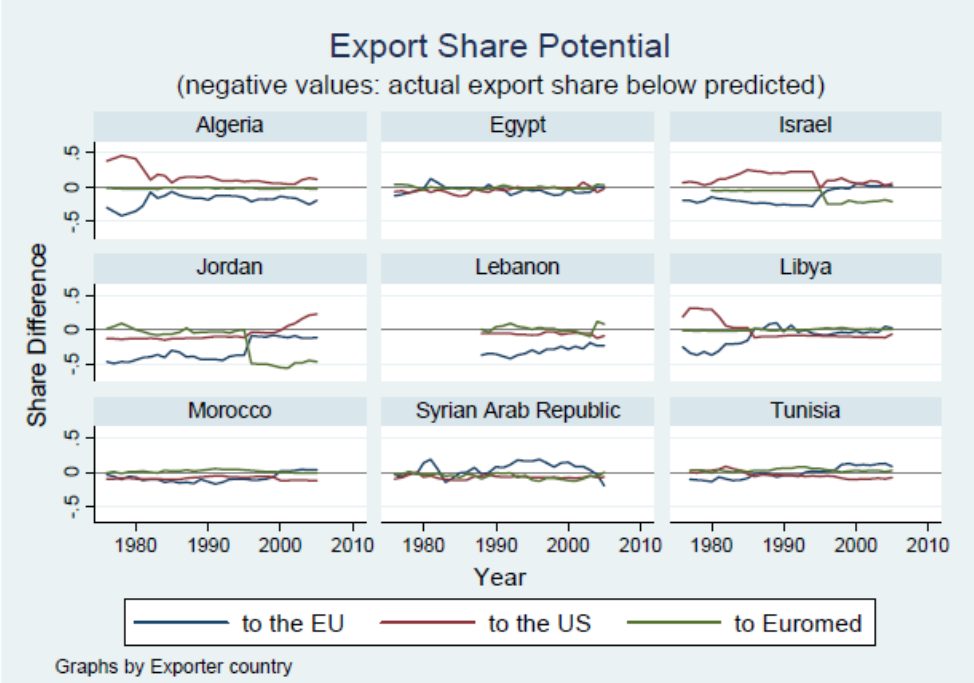
Ruiz and Vilarrubia (2007)	Top 100 exporters in 2004 including EuroMed countries over the period of 1976-2005 Pooled OLS regression and OLS regression with exporter, importer and time dummies and OLS regressions with country-period dummies, in-sample trade potential estimates	The membership of the EuroMed agreement does not seem to have a significant impact on trade. Most EuroMed countries (except Algeria, Jordan and Lebanon) seem to trade with the EU at or slightly above the potential predicted by the model. So export growth could probably come from individual EU countries and the US. Intra-EuroMed trade is close to the potential levels predicted by the gravity model.	**Figure 4: Export share potentials index**  **Note:** These export share potentials are constructed using equation (13) and the results from our preferred specification with 100 countries and exporter-, importer-triennial dummies, from 1976 to 2005 (column 6 of table 4).

Table 5: Largest and smallest export share potentials by country

Difference between actual and predicted share of exports. Average 2000-2005
(in percentage of total exports)

Algeria		Egypt		Israel	
Top 5 countries (actual trade share above that predicted by gravity model)					
Italy	7.67	Italy	7.29	United States	6.15
United States	7.36	Spain	2.21	Belgium	6.04
Brazil	5.49	Syria	1.78	Hong Kong	3.10
Canada	5.29	India	1.68	Netherlands	1.53
Turkey	3.49	Saudi Arabia	1.68	Brazil	1.12
Bottom 5 countries (actual trade share below that predicted by gravity model)					
Morocco	-1.28	France	-1.82	Turkey	-0.38
Spain	-1.30	Germany	-2.46	Italy	-1.01
United Kingdom	-3.88	United States	-2.64	Egypt	-3.69
Germany	-6.75	Israel	-5.92	United Kingdom	-4.14
France	-12.72	United Kingdom	-7.45	Jordan	-18.78

Jordan		Lebanon		Libya	
Top 5 countries (actual trade share above that predicted by gravity model)					
Iraq	18.93	United Arab Emirates	10.56	Spain	7.44
United States	12.10	Switzerland	8.50	Germany	6.32
India	9.14	Saudi Arabia	5.15	Turkey	5.79
Saudi Arabia	5.31	Iraq	2.64	Switzerland	2.39
United Arab Emirates	3.17	Kuwait	2.48	Tunisia	1.41
Bottom 5 countries (actual trade share below that predicted by gravity model)					
Turkey	-0.57	Italy	-3.15	Japan	-1.41
Germany	-1.67	Germany	-4.20	Belgium	-2.05
Italy	-1.78	Syria	-7.30	Italy	-3.35
United Kingdom	-4.08	United States	-8.19	Netherlands	-3.38
Israel	-53.92	France	-11.29	United Kingdom	-5.19

Morocco		Syria		Tunisia	
Top 5 countries (actual trade share above that predicted by gravity model)					
France	6.15	Germany	9.02	France	11.26
United Kingdom	3.22	Italy	7.69	Libya	3.86
India	2.93	Saudi Arabia	3.01	Belgium	2.57
Brazil	1.51	Turkey	2.97	Germany	2.01
Singapore	1.12	United Arab Emirates	2.80	Italy	1.46
Bottom 5 countries (actual trade share below that predicted by gravity model)					
Belgium	-1.02	Japan	-2.15	Japan	-1.22
Algeria	-1.58	Jordan	-2.21	Netherlands	-1.45
Germany	-2.09	France	-5.41	Algeria	-1.61
Portugal	-2.63	Lebanon	-7.41	United Kingdom	-1.90
United States	-12.35	United States	-8.07	United States	-10.41

Source: author's calculations based on OLS regression with 100 countries and exporter-, importer-triennial dummies from 1976 to 2005 (column 6 of Table 4).

Methodology and Data Sources

We modified somewhat the methodology adopted by Ruiz and Vilarrubia (2007). First, we apply it to a more recent data set comprising 100 countries with largest exports in 2004 over the period of 1970-2008. Secondly, apart from studying the impact of the Euro-Med agreements on the parties involved as groupings, we also look at their impact on the individual countries, as the depth and length of the integration process differs between the MED countries. Thirdly, we also study the impact of the Agadir and PAFTA agreements on trade. Finally, we employ a more robust estimation technique by including pair dummies to reduce the omitted variables bias from unobserved pair-wise characteristics (Baldwin and Taglioni (2006) suggest that such biases are severe).

Ruiz and Vilarrubia (1997) employ the following equation:

$$\ln x_{eit} = bZ_{ei} + cZ_{eit} + d_{et} + d_{it} + \varepsilon_{eit}$$

Where x_{eit} – exports from country *e* to county *i* at time *t*

Z_{ei} – vector of explanatory variables which depend on the specific *ei* country pair, but which are constant over time (distance among trading partners, dummies for a common land border, a common language, a common colonizer, a current colonial relationship, a past colonial relationship and an index or religious similarity)

Z_{eit} – vector of time-and-country-pair varying explanatory variables (membership in the same FTA, membership in the same currency union as well as dummies to take account of trade creation and diversion effects of trade agreements)

d_{et} and d_{it} - exporter and importer time dummies

However, Baldwin and Taglioni (2006) suggest including pair dummies to reduce the omitted variables bias from unobserved pair-wise characteristics. Hence our final equation includes d_{ei} – country-pair dummies and a time dummy instead of exporter and importer-time dummies. The inclusion of these dummies precludes the use of country-pair-specific variables such as distance between countries, contingency, common language, colonial relationships, which are dropped from the final equation.

The sample includes 100 countries with largest exports in 2004 over the period of 1970-2008 (IMF DOTS). GDP data originates from IMF WEO data base. Further, following Ruiz and Vilarrubia (2007) we include dummies for the membership of the following FTAs: EEC, US-Chile, US-Israel, NAFTA, CARICOM, PATCRA, Mercosur, EFTA, CAN, CACM, CER, AFTA. In addition we include the Agreements between the EEC and EFTA which occur between country and existing trading blocks in the form of hub-and-spoke relationships. Finally, we include the agreements between the EEC and the Med countries with the following dates following the Table 1: Algeria – 2005, Egypt - 2004, Israel -2000, Jordan -2002, Lebanon – 2006, Morocco - 2000, Tunisia - 1998. In addition we also include the Agadir Agreement between Jordan, Egypt, Morocco and Tunisia, which came into force in mid-2006 and PAFTA, which covers Egypt, United Arab Emirates (UAE), Bahrain, Jordon, Tunisia, Saudi Arabia, Sudan, Syria, Iraq, Oman, Palestine, Qatar, Kuwait, Lebanon, Libya, Morocco, Yemen leading to the tariff reductions for all industrial and agricultural products that started in 1998 and was accomplished in 2005.

In addition we include three types of dummies for the Euro-Med, Agadir and PAFTA agreements. The first dummy takes the value of one when trade takes place between members of the FTA. The second dummy takes the value of one when only the exporter is in an FTA to capture the trade diversion effect. Finally the third dummy takes the value of one if only the importer is in the FTA, capturing the possible trade creation effect of the FTA.

Estimation Results

Below we present a full set of results as in Table 13 of Chapter 4. The main results were already discussed in the Chapter 4. Here we note that the adoption of Euro did not seem to have had an impact on trade flows between countries that have adopted the currency. Other FTAs that have a positive impact on trade flows between their members include: EEC/EU, NAFTA, Mercosur, EFTA, CAN and bilateral FTAs with the EU and EFTA.

Appendix3 Table 2 Full set of results as presented in Table 13 of chapter 4
Dependent variable: log of bilateral exports

	Coefficient	t-stat	P>|t|	Coefficient	t-stat	P>|t|
Exporter's GDP	0.555	93.55	0	0.556	93.53	0
Importers GDP	0.694	116.09	0	0.694	116.02	0
Both countries members of the EEC/EU	0.297	10.15	0	0.296	10.13	0
Both countries members of the Euromed agreements	-0.005	-0.09	0.924			
Only importer member of the Euromed agreements	0.111	3.3	0.001			
Only exporter member of the Euromed agreements	0.342	10.93	0			
Egypt-EU FTA				0.747	5.88	0
Morocco-EU FTA				-0.172	-1.49	0.136
Jordan-EU FTA				0.108	0.87	0.386
Israel-EU FTA				0.139	1.25	0.21
Tunisia-EU FTA				0.282	2.38	0.017
Lebanon-EU FTA				-0.503	-3.52	0
Algeria-EU FTA				-0.307	-2.48	0.013
Imports of Egpyt from non-EU partners				0.578	5.95	0
Imports of Morocco from non-EU partners				0.071	0.94	0.348
Imports of Jordan from non-EU partners				0.100	1.16	0.245
Imports of Israel from non-EU partners				0.213	2.56	0.01

Imports of Tunisia from non-EU partners				-0.100	-1.6	0.109
Imports of Lebanon from non-EU partners				-0.168	-1.53	0.127
Imports of Algeria from non-EU partners				0.305	3.67	0
Exports of Egypt to non-EU partners				1.049	12.82	0
Exports of Morocco to non-EU partners				0.171	2.64	0.008
Exports of Jordan to non-EU partners				0.372	5.03	0
Exports of Israel to non-EU partners				0.461	7.09	0
Exports of Tunisia to non-EU partners				0.278	3.49	0
Exports of Lebanon to non-EU partners				0.131	1.41	0.158
Exports of Algeria to non-EU partners				0.176	1.98	0.048
Both countries members of the Agadir agreement	-0.035	-0.13	0.895	-0.263	-0.98	0.327
Exports of Agadir countries to non-members	0.420	8.09	0	0.280	4.87	0
Imports of Agadir countries from non-members	0.079	1.46	0.143	0.022	0.38	0.704
Both countries members of the PAFTA agreement	0.760	17.97	0	0.766	17.84	0
Exports of PAFTA countries to non-members	-0.084	-4.1	0	-0.092	-4.31	0
Imports of PAFTA countries from non-members	0.084	4.33	0	0.089	4.4	0
US-Chile FTA	0.208	0.47	0.637	0.208	0.47	0.637
US-Israel FTA	0.111	0.35	0.727	0.086	0.27	0.788
NAFTA	0.653	3.42	0.001	0.653	3.42	0.001
PATCRA	0.205	0.46	0.643	0.204	0.46	0.643
Mercosur	0.529	2.51	0.012	0.529	2.51	0.012
EFTA	0.658	9.83	0	0.661	9.86	0
CAN	0.423	3.16	0.002	0.422	3.16	0.002
CACM	-0.509	-1.72	0.085	-0.510	-1.73	0.085
CER	0.082	0.26	0.793	0.082	0.26	0.794
AFTA	1.268	18.64	0	1.267	18.64	0

Other FTAs with EEC	0.335	8.05	0	0.342	7.9	0
Other FTAs with EFTA	0.294	7.5	0	0.281	6.36	0
EURO	0.049	0.97	0.332	0.049	0.97	0.333
Constant	-2.538	-171.32	0	-2.539	-170.78	0
Number of observations	229946			229946		
R-squared	0.4779			0.4779		

Where:
US-Chile FTA – US and Chile from 2004
US-Israel FTA – US and Israel from 1985
NAFTA – US, Canada and Mexico from 1994
PATCRA – Australia and Papua New Guinea (1997)
Mercosur – Argentina, Brazil, Paraguay and Uruguay (2001)
EFTA – Iceland (1970), Norway (1960), Switzerland (1960), UK (1960-73), Portugal (1960-86), Austria (1960-95), Finland (1961-95), Denmark (`960-73), Sweden (1960-73)
CAN – Bolivia, Columbia, Ecuador, Peru - 1993 and Venezuela (1993-2006)
CACM - Costa Rica (1963-1969; 1991-), El Salvador (1960-1969; 1991-), Guatemala (1960-1969; 1991-), and Honduras (1960-1969; 1991-), Nicaragua (1960-1969; 1991-).
AFTA- Brunei Darussalam (1992), Cambodia (1999), Indonesia (1992), Laos (1997), Malaysia (1997), Myanmar (1997), Philippines (1992), Singapore (1992), Thailand (1992), and Vietnam (1995).

Agreements with the EEC - Chile (2003), Croatia (2002), FYR Macedonia (2001), South Africa (2001), Mexico (2000), Bulgaria (1994-2007), Faroe Islands (1997), Romania (1993-2007), Turkey (1996), Switzerland (1973), and Iceland (1973).
Agreements with the EFTA - Tunisia (2005), Chile (2004), Singapore (2003), Jordan (2002), Croatia (2002), Mexico (2001), Morocco (1999), Bulgaria (1993), Romania (1993), Israel (1993), Turkey (1992), and the FYR of Macedonia (2001).