

# CASE Network Reports

## Economic Integration in the Euro-Mediterranean Region

Luc De Wulf (Ed.)  
Maryla Maliszewska (Ed.)  
Rym Ayadi  
Moez El Ej  
Michael Gasiorek  
Ahmed Farouk Ghoneim  
Selen Guerin  
Peter Holmes  
Hammad Kassal  
Javier Lopez Gonzalez  
Mahmut Tekce

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The views and opinions expressed here reflect the authors' point of view and not necessarily those of CASE Network.

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12 Sienkiewicza, 00-010 Warsaw, Poland

tel.: (48 22) 622 66 27, fax: (48 22) 828 60 69

e-mail: [case@case-research.eu](mailto:case@case-research.eu)

<http://www.case-research.eu>

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## **List of Abbreviations**

AA – Association Agreements  
ACAA – Agreement on Conformity Assessment and Acceptance of Industrial Products  
AGADIR - Pan-Arab Free Trade Area  
ANIMA – ANIMA Investments Network - [www.animaweb.org](http://www.animaweb.org)  
ASEAN – Association of Southeast Asian Nations  
ASYCUDA – Automated System for Customs Data  
BEC – Broad Economic Categories  
CAN – National Accreditation Council  
CEN – European Committee for Standardizations  
CENELEC – European Committee for Electro-technical Standardization  
CGEM – Confédération Générale des Entreprises du Maroc  
CODEX – codex alimentarius - WHO Food standards  
DEPP – Department of State Entities and Holdings  
EA – European Cooperation for Accreditation  
EDI – Electronic Data Interchange  
ENP – European Neighbourhood Policy  
EOS – Egyptian Organization for Standardization and Quality  
EU – European Union  
EUREPGAP – Global Partnership for Safe and Sustainable Agriculture  
FDI – Foreign Direct Investment  
FEMISE – Forum Euro-méditerranéen des Instituts de Sciences Économiques  
FTA – Free Trade Agreement  
GAFTA – Great Arab Free Trade Area  
GAGS – General Authority for Government Services  
GATS – General Agreement on Trade in Services  
GCC – Gulf Cooperation Council  
GDP – Gross Domestic Product  
GOEIC – General Organization for Exports and Imports Control  
GPA – Government Procurement Agreement  
HACCP - Hazard Analysis and Critical Control Point  
HS – Harmonized System  
IAF – International Accreditation Forum  
ICE – Italian Institute for Foreign Trade  
IEC – International Electro-technical Commission  
IIT - intra-industry trade  
IFRS – International Financial Reporting Standards  
IGF – Inspectorate General of Finance  
ILAC – International Laboratory Accreditation Cooperation  
IMC – Industrial Modernization Center



INNORPI – National Institute for Standardization and Industrial Property  
IPR – Intellectual Property Rights  
ISO – International Organization for Standardization  
ISPM – International Standard of Phytosanitary  
ISRAC – Israel Laboratory Accreditation Cooperation  
JFDA – Jordan Food and Drug Administration  
JISM – Jordan Institute of Standards and Metrology  
MED – Mediterranean Region  
MED5 – Egypt, Morocco, Tunisia, Jordan, Israel  
MENA – Middle East and North Africa  
MFN – Most Favourite Nation  
MNC – Multinational Companies  
N-S agreement – North –South Agreement  
MRA – Mutual Recognition Agreement  
NAFTA – North American Free Trade Agreement  
NM – Norme Marocaine  
NT – Norme Tunisienne  
NTB – Non-Tariff Barriers  
PAFTA – Pan-Arab Free Trade Area  
PPIS – Plant Protection and Inspection Service  
RASFF – Rapid Alert System for Food and Feed  
RCA – Revealed Comparative Advantage  
REACH - Registration, Evaluation and Authorization of Chemicals  
ROW – Rest of the World  
RTA – Regional Trade Agreements  
S-S agreement – South – South Agreement  
SII – Standard Institution of Israel  
SINDA – Automated Customs Information System  
SITC – Standard International Trade Classification  
SMC - South Mediterranean Countries  
SME – Small and Medium Enterprises  
SNIMA – Service de Normalisation Industrielle Marocaine  
SPS – Phyto-sanitary Standards  
TBT – Technical Barriers to Trade  
TFM – Trade and Investment Facilitation Mechanism  
TPR – Trade Policy Review  
TRIMS - Trade-Related Investment Measures  
TRIPS – Trade-Related Aspects of Intellectual Property Rights  
UNCTAD – United Nations Conference on Trade & Development  
UOM – Union for the Mediterranean  
USTR – United States Trade Representative  
WTO – World Trade Organization

## **The authors**

**Luc De Wulf** is a Belgian national with a doctorate degree in economics from Clark University , Worcester Mass. USA. He worked as economist for the International Monetary Fund (till 1988) before joining the World Bank from where he retired in 2000. As independent consultant he has since worked for the World Bank, DIFD and the European Commission. In this capacity he has written major studies in the areas of trade facilitation, customs reform, government finance and international trade.

**Maryla Maliszewska** (Ed.) has been working with the CASE Foundation since 1996. Her research interests cover modeling of international trade flows, implications of regional integration and elimination of NTBs using CGE models, determinants of real exchange rate, location of production and agglomeration externalities in transition. Between 1997-98 and in 1999, she worked as a CASE representative in the ProDemocratia advisory mission in Romania. She has also worked as a consultant for the World Bank in projects on the CIS countries, Albania and Iraq. She managed, edited and co-authored several studies for DG Trade (EC): on the Economic, Social and Environmental Implications of a Free Trade Agreement (FTA) between the European Union and Russia and the Economic Implications of EU-Georgia and EU-Armenia FTAs, and most recently the analysis of the Economic Integration in the Euro-Mediterranean region. She was also a deputy project coordinator of the ENEPO project.

**Rym Ayadi** holds a PhD in Industrial Economics from University Paris Dauphine and she is Senior Research Fellow and Head of Research of the Financial Institutions, Prudential Policy and Tax Unit at CEPS. She is also Co-Director of MEDCOP – the Mediterranean Co-development Platform, co-founded together with Juan A. de Castro. She has developed a particular interest for South Mediterranean Region with a focus on business and financial markets development, SME financing, investment and trade. She is advisor of central banks in Egypt and Tunisia. She is a member of an expert group (FINUSE) on financial services policies at the European Commission and she is member of several editing and scientific committees. Previously, she lectured industrial economics, innovation policy and risk management in France and in the UK.

**Moez El Elj** is assistant professor at the High School of Management of Tunis. He received his PHD in Economic Modelling from 1999 at Ecole Centrale Paris.

His research's interests, include all topics and issues related to innovation, trade, industrial structure, competition and science and technology policies. Moez EL ELJ is also lecturer of Advanced Topics in “Innovation and Industrial Structure” at Ecole Polytechnique de Tunisie as well as a Senior Research Fellow at the Laboratory of Economy and Industrial Management (Ecole Polytechnique Tunisie), where he coordinates the Master of Economic Modelling and Econometrics. From 2004 to 2007, he was also lecturer of “Knowledge Economy” at Tunisian National School of Administration (ENA). Moez EL ELJ is founder of Euromed Market Research Agency specialized in economic market analysis in South Mediterranean especially in Maghreb countries..

**Michael Gasiorek** (Dr.) is a specialist in international trade whose interests lie in both empirical and theoretical research. His empirical research has focused on the impact of trade liberalisation within the EU, between the EU and third countries, and between regions within countries. His current applied research is focused on the process of trade liberalisation between the EU and the Southern Mediterranean, as well as intra-Southern Mediterranean trade liberalisation, with a particular focus on rules of origin. His theoretical research interests lie principally in the implications of trade liberalisation on the welfare consequences of the localisation and agglomeration of production. Current work in this area involves looking at these issues in the presence of multinationals. He is also an Associate Professor at GREQAM, one of the top three research institutes in France, as well as being a member of the FEMISE (Forum Euro-Mediterranéen des Instituts Economique) Steering Committee.

**Ahmed Farouk Ghoneim** is currently an Associate Professor, Faculty of Economics and Political Science, Cairo University. He is a research fellow at the Economic Research Forum for Arab Countries, Iran and Turkey (ERF) as well as at CASE. He works as a consultant to several international and national organizations including the World Bank and the World Intellectual Property Organization (WIPO). He holds a Ph.D. in Economics and his special interests in research include mainly trade policy, regional trade integration, the multilateral trading system, the World Trade Organization, and the economics of Intellectual Property Rights. He held different policy oriented positions, among which was an advisor on foreign trade issues to the Minister of Foreign Trade and advisor to the Minister of Industry on foreign trade issues and international agreements.

**Selen Guerin** (Dr.) is a research fellow at Vrije Universiteit Brussel, Institute for European Studies and an associate research fellow and Head of Trade Policy Unit at Center for European Policy Studies (CEPS). Her research interests in-

clude: international trade theory and policy, international capital flows, current account imbalances, foreign direct investment, and trade and climate change. Among several other projects for DG Trade and the World Bank Selen has worked on the EU-South Korea FTA, EU-Western Balkans Customs Union, New Dimension of Transatlantic Trade: EU-Canada CETA.

**Peter Holmes** is a specialist in European Economic Integration and other global public policy issues, including the EU's relations with the WTO. He is interested in the relationship among the complex of policies on trade, competition, regulation, and technology; he has collaborated with lawyers and political scientists. He has written reports for the European Commission and the World Bank and been a visiting lecturer in the College of Europe (Bruges and Warsaw) and in France. He works with the Sussex European Institute and is an Associate Fellow of the Science Policy Research Unit. Recent work covers: EU anti-dumping policy; trade and competition negotiations and dispute settlement at the WTO; the patentability of software; EU enlargement; Regionalism and the world trading system.

**Hammad Kassal (Dr.)** Adjunct Faculty at the Al Akhawayn University, Morocco.

**Javier Lopez Gonzalez** holds a Master's degree in European Economic Integration from the University of Sussex. During his professional experience, he has worked for the EU Commission (DG Trade) and more recently for the ILO (International Labour Organisation). Javier has undertaken regular consultancy work for clients such as UNCTAD, BERR, ECOWAS secretariat, the Commonwealth Secretariat and DG Trade in matters related to international trade analysis with a strong focus on regional trade agreements.

**Mahmut Tekce** holds a PhD in economics and is currently a lecturer at Marmara University, Istanbul and an associate research fellow at Center for European Policy Studies (CEPS), Brussels. His research interests cover international trade policy, agricultural policies, regional integration and political economy. Dr. Tekçe gives lectures on International Trade, Agricultural Economics, Economics of the EU and Economic History. He worked as a researcher on several projects such as, "A Future FTA between Moldova and the EU: Feasibility, Perspectives and Potential Impact", "A Qualitative Analysis of a Potential FTA between the EU and Korea" and "The EU Harmonization in Key Infrastructure Services of Turkey".

## **Preface**

This study on the economic integration of the Euro-Med region was conducted from December 2008 to September 2009 under contract with the European Commission (TRADE08/C2/C16). We benefited greatly from the consultations with the European Commission during the kick off meeting and from the subsequent exchange of comments and suggestions. We are very grateful for their support.

The study was conducted by a consortium of CASE and CEPS. CASE was responsible for the management of the project and the desk research. CEPS conducted the survey of business perceptions through structured interviews and a detailed questionnaire and prepared the section on key sectors that turned out to be particularly promising for future export development in the Mediterranean region. In the process of undertaking their work on the questionnaire CEPS solicited support from government officials, interviewed a number of government officials but focused their attention to gather the opinions of members of business associations and especially of individual businesses in the EU and in Egypt, Israel, Jordan, Morocco and Tunisia. CEPS would like to thank the various officials, business associations and individual businesses that gave generously of their time to respond to the lengthy questionnaire.

An Interim version of this report was presented to Euro-Med Senior officials at a meeting in Marrakesh, Morocco on July 20. Comments received at that meeting were taken into account in the drafting of this final report.

Luc De Wulf and Maryla Maliszewska assured the overall coordination of the report on behalf of CASE. Luc De Wulf conducted the review of the Euro-Med integration in the Section 2. The analysis of trade and investment patterns (Section 3) and of Strengths and Weaknesses (Section 8) was conducted by researchers from the Sussex University: Michael Gasiorek, Peter Holmes, and Javier Lopez-Gonzalez. A review of gravity models and an early assessment of the impact of EU-MED and regional integration were conducted by Maryla Maliszewska. The analysis of NTBs of Section 5 was undertaken by Ahmed Farouk Ghoneim from the Cairo University. The CEPS researchers including Selen Guerin, Rym Ayadi, Moez El Elj, Hammad Kassal, Funda Celikel-Esser and Mahmut Tekce conducted the business perception survey and the sectoral analysis (Sections 7 and 8). The Policy Recommendations are the result of intense discussion of all the members of the team who also reviewed the various sections of the report. Patricia Augier (CEFI) reviewed selected parts of the report and provided valuable input.

I would like to take this opportunity to thank all team members for their cooperation, valuable contributions and comments.

*Luc De Wulf, Project Manager, Center for Social and Economic Research (CASE)*

# Executive Summary

1. **This study evaluates** the effects of the current Euro-Mediterranean Free Trade Agreement for the EU and the Mediterranean region, in order to assist policy makers in defining the next steps in the Euro-Mediterranean Road map till 2010 and beyond. It provides quantitative, qualitative and sectoral assessment of the impacts of the Euro-Mediterranean FTA on trade and investment, points out the partnerships' strengths and weaknesses and provides policy recommendations with the view of realizing a goal of a well functioning free trade area in the future. The focus of the study is on Egypt, Israel, Jordan, Morocco, and Tunisia (MED5).
2. The Euro-MED relations have since the mid-1990s been guided by a number of initiatives and programs. The Barcelona Process continued the process of creating an area of shared prosperity in the Mediterranean, started in the late 1970's with the establishment of Cooperation Agreements with many countries in the Mediterranean region, with an emphasis on creating a free trade area. This led to the signing of a number of Association Agreements (AA) with countries from the Mediterranean region. Progress has been slow and initiatives have been launched to move forward to better internalize these association agreements and to gradually replace the shallow integration that characterizes free trade agreements towards deep integration that calls for greater harmonization of the regulatory framework.
3. It is rather early to assess **the full potential of AAs**. As of 2006 -the year of our latest trade data available- for most of the partner countries the process of liberalizing their tariffs with respect to the EU was far from complete. For example Egypt's AA only entered into force in 2004. The AAs typically have transition periods of up to 12 years and included several exemptions. In early 2000s the growth of MED exports to and imports from the EU was slower than from other regions. There might be several reasons for this apparently disappointing trend. The period under consideration in this study coincided with MFN liberalization that reduced MFN tariffs and contributed to growth of trade with third countries. Also industrial exports from MED region to the EU were already substantially free of tariffs under the earlier Co-operation Agreements. At the same time NTBs and general economic conditions in the Mediterranean partner countries hampered trade expansion.

4. **Preferences and utilization.** A major issue regarding the smooth functioning of the AA's is the extent to which the partners can actually take advantage of the preferences available. We found that in the MED5 about 80% or more of exports came in duty free except for Jordan at 70%. There were however up to 10% of exports (18% for Jordan) in categories where there should have been a zero tariff but where a non-zero MFN rate was actually paid. This is thought to be a common issue where tariffs are very low and the cost of obtaining certificates of origin is high. Further research would be needed to find out whether the 10% or so of trade not getting preferences is due to unimportance of the value of the preferences, misclassifications, or the high cost of origin proof. If it is the latter then action might be needed.
5. For most of the region the **“natural trading partner” is the EU** which should imply that the N-S agreement will be net trade creating. However Israel and Jordan have traditionally traded as much or more with the US than with the EU. This may be due to preferences or historic ties; there is nothing in the data to suggest a reversal of this in the foreseeable future.
6. There is **little indication that MED countries are each others' “natural trading partners”** which suggests that the potential S-S agreements will not necessarily be net trade creating. Even though trade between the MED economies is very low, it is exhibiting positive growth. The MED region imports significantly different products from the region than from the rest of the world which suggest that there is also little scope for trade diversion. 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 efficiency enhancing as it removes previous trade diversion created from other preferential agreements.
7. Looking at how similar MED partner exporting structures are to other MED partner importing structures to assess how well the countries could supply one another other, we see that similarity is very low. This suggests that these partners are not each other's natural trading partners and hence that any of the S-S agreements are likely to have limited trade effects. The MED partner's exporting structures are becoming increasingly similar, even though they continue to be highly dissimilar. This is a necessary if not a sufficient condition for the emergence of niche specialisation or IIT. The current degree of **“deep market integration” between the EM5 countries as identified by way of IIT indicators is still low** but it has been growing over time.
8. In terms of the **impact of the AAs on investment**, we note that the region does not yet attract the kind of EU investment flows that the European

neighbours have been able to attract. FDI is still very much resource based and market seeking. As shown in the World Bank scores for the business climate, MED countries (with the exception of Tunisia, Turkey and Israel) score rather low suggesting great possibilities to improve this climate that would certainly enhance its attractiveness for FDI.

9. A review of the most recent studies based on **gravity models of trade** indicates that current MED5 exports to the EU are close to their potential levels. Also their trade with each other is not far from potential levels typical for other countries with similar characteristics. However, a deeper integration between the EU and EuroMed countries could lead to a significant growth of exports from the Mediterranean region to the EU. Some estimates indicate that exports to the EU and imports from the EU could triple or quadruple if EuroMed countries could reach the levels of integration typical for the EU15.
10. Our early **assessment of the impact of the Euro-MED FTAs on trade** indicates that it has contributed to increases of trade with the EU only in the cases of Egypt and Tunisia. We find no evidence of any impact of the FTAs on trade of Morocco, Jordan and Israel with the EU. Our results indicate a fall in trade with the EU in the case of Lebanon and Algeria. However, these are the two most recent FTAs, hence it might be too early to see any impact of the FTAs on trade flows. Our results indicate that in the case of all MED countries, but Tunisia, the FTAs have led to the expansion of exports to and imports from the non-member countries.
11. The MED5 are in different stages of **harmonization of their standards** with the EU, but the process of harmonization has been progressing. Only Israel has so far concluded negotiations of an Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA) and initialled a Mutual Recognition Agreements with the EU. This situation reflects the absence of trust in the standards procedures adopted in the MED5 or/and weak domestic accreditation organizations, which lack international recognition. The report also discusses several remaining obstacles to harmonization of standards with the international standards.
12. In terms of **SPS measures** there are a number of issues in the MED5 which are not in line with the acquis regulations. Moreover, it appears that stringency of applying measures by the MED5 seem to be relatively stronger at the borders as compared to a less effective monitoring in the domestic market. In the case of SPS measures there are a number of general problems that affect exporters to the MED5 such as ad hoc application of shelf life procedures or multiplicity of documents and regulations required in each country.



13. All MED5 have undertaken substantial **customs reforms** though the pace has differed among them. Reforms included amendments of the customs laws to be consistent with the WTO valuation agreement, simplification of customs procedures, and automation. As a result of such reforms, the average clearance time in all MED5 dropped significantly, but further reduction will be needed to enhance competitiveness.
14. It seems that the cumulation of the **rules of origin** has not been fully utilized. The main reason for lack of cumulation between the EU and the MED5 are high costs of EU inputs. Within the Agadir Agreement, exports from the various signatories are very similar and there is only a modest level of trade amongst them.
15. All MED5 have **competition laws** which vary significantly in their definitions, coverage and exemptions. Regarding state aid, none of the MED5 has provisions that are aligned to those of the EU and this is the major area where cooperation between the EU and MED5 is still lagging. It seems that anti-competitive behaviours exist to a significant degree in MED5 markets and that competition laws remain ineffective in dealing with such cases.
16. **The government procurement** procedures of the MED5 differ from those of the EU. They often grant preferences to domestic suppliers, and the EU might be in a less favourite position in some of the countries that have signed bilateral agreements with third countries. For example the US agreements with Morocco and Israel grant national treatment for American firms. All MED5 encounter problems associated with bidding procedures, especially when foreigners are included, and with transparency issues.
17. The legislations regarding **intellectual property rights** in the MED5 are in compliance with TRIPS. However, all MED5 have problems with the enforcement of IPR laws and regulations and/or weak provisions in some of their legislation that at times make them non-compliant with TRIPS. The MED5 have amended their laws in an effort to be compatible with TRIPS, however as reports of main trading partners indicate there are some loopholes in the laws.
18. The results of the **business perception survey** conducted in the 5 MED countries and the EU indicates that the EU business representatives think that reduced cost of doing business due to tariff/quota elimination and increased business opportunities are the most important achievements of the AAs. Although the tariffs and quotas are low, the existence of quantitative barriers represents a high bureaucratic constraint to the businesses which are both time-consuming and costly. According to the responses of the EU businesses, although the AAs have increased business opportunities, there is still considerable lack of information about opportunities among the business community.

The MED business representatives observed several advantages of the Euro-Med integration such as increased business opportunities, investment attraction and availability of export/import credit. A majority of respondents indicated that cumbersome customs procedures and NTBs constitute an obstacle to further expansion of trade and investment in the region. The Report details the responses for the MED5 and provides an overview of the main issues as they pertain to a selection of sectors including agriculture, manufacturing and services.

19. In the business survey we investigated the respondents' knowledge of the **PanEuroMed diagonal cumulation of origin** and whether their business has benefited from it or not. This information is important as there is no prior knowledge of the utilization rate of this new system as it has been implemented very recently. The knowledge of the PanEuroMed cumulation of origin is high both among the EU and MED5 respondents (53 percent for both). Several MED5 respondents indicated that the cost of obtaining a certificate of origin was negligible. Although it is difficult to generalize, in some sectors the rate of utilization of the PanEuroMed diagonal cumulation of origin was as high as 70 percent of exports.
20. A synthesis of both quantitative analysis and qualitative analysis of this study indicates that **textiles and clothing, machinery and transport equipment, chemical and services sectors** are the most important ones for future deep FTA negotiations. Although the textile sector is a traditional sector it still accounts for the majority of MED region's exports to the EU, but its importance is already declining as the region increases its dynamic comparative advantage in more capital-intensive industries. Also the textile industry is moving into higher value-added products category. For example, German textiles industry is using Mediterranean as a production location for textiles used in the German motor vehicles industry. On the other hand, the majority of machinery exported by Italy to the Mediterranean region is mainly used by the textiles industry in MED region. For the long-term growth of the Mediterranean region, we argue that chemicals and machinery and transport equipment and services are going to be the key drivers. However, improving the quality of human capital and R&D and lack of South-South integration will present considerable challenges ahead.
21. The analysis of **strengths and weaknesses of the Euro-Med integration** process can be summarized as follows:
  - Trade integration between the EU and MED has been affected by the lengthy time table provided for the tariff reductions, the list of exemptions included in the Agreement and the fact that after signature of the

Barcelona Agreement in 1995, much time elapsed before several countries actually concluded the FTAs with the EU. The latest two countries to conclude an FTA with the EU were Egypt (2004) and Lebanon (2006). Hence it is almost certainly “too early” to find evidence of a trade impact;

- In terms of sectoral coverage, the substantial exception from the Association Agreements, related to agriculture and services. Agriculture was included in both Agadir and PAFTA. On the side of the Mediterranean partner countries the Association Agreements allowed for limited liberalization of agriculture and fisheries and largely with regard to processed agricultural products. On the EU side there was greater liberalization but still with a number of exceptions;
  - The trade promotion effects of tariff reductions were also undermined as non-tariff barriers remained too restrictive. This pertains to technical standards, SPS, trade facilitation, competition policy, government procurement and intellectual property rights. An important degree of progress in a number of countries, and with respect to particular areas has been achieved. However, equally clearly a number of significant barriers remain;
  - The business environment in the region lags that in many other countries that compete to attract foreign investment as suggested by the low scores achieved in the World Bank Doing Business Survey or more detailed surveys of investment climate. This certainly impedes the flow of investment to the region;
  - The Association Agreements spelled out a number of commitments (for example with regard to tariff barrier removal) and cooperation clauses (with regard to many of the behind the border issues identified above). However, these have not been introduced, implemented and enforced as much as expected. The responses to the business survey strongly suggest that EU support to assist MED countries to strengthen the institutional capacity to implement the agreed upon measures was insufficient.
22. The report provides a number of **policy recommendations** that could be discussed within the context of finalizing the Euro-Mediterranean Trade Roadmap till 2010 and beyond. Following the analysis in this study, these recommendations suggest that in the first place the EU could provide support to assist MED countries to effectively implement the commitments already made. With respect to the scope of reaffirmation and broadening of these commitments the study suggest that a distinction be made between (i) those measures which are required for deep integration and related to market access i.e. tariffs,

rules of origin, and standards/SPS and (ii) those measures that aim at improving the business environment and thus promote economic development with impact on North-South and South-South trade and investment. While highly desirable and contributing to deep integration these latter measures should aim at better coordination, harmonization and emulating best practices of the EU, but not necessarily at full implementation of the *acquis*.

23. **Measures required for deep integration related to market access.** In order to improve market access the sectoral coverage of the Euro-Med integration needs to be broadened to cover agriculture, processed agricultural and fisheries products, as well as services in Euro-Med and intraregional FTAs. The FTAs should introduce MFN clauses to avoid/mitigate trade and investment diversion. A key issue for an effective improvement in market access is the creation of a well functioning Pan-Euro-Med system of diagonal cumulation, with cumbersome procedures streamlined and appeal mechanism provided. A number of recommendations apply to technical standards harmonization and SPS. If firms cannot either conform to the required standard in their desired export market, or cannot prove that they have produced to the required standard, than they simply cannot access the given market. The MED countries would not be able to fully benefit from a reduction of tariffs on their exports to the EU without a well functioning system of conformity assessment centres, with internationally recognised certificates, timely and reliable testing procedures. The EU could also support initiatives to further harmonize the industrial standards and SPS standards across countries; including e.g. labelling and packaging requirements that have been identified a serious NTB for trade between SMC and the EU and amongst MED countries. A number of specific recommendations in the area of technical standards and SPS have been provided.
24. **Measures highly recommended to improve the business environment and thus to promote deep integration.** One way of promoting trade and investment would be to expand the trade and investment facilitation mechanism (TFM) to go beyond providing market access information, early warning, and complaint register and discussion forum. The TFM could also be tasked with promoting awareness of the advantages to the business community of the Association Agreements, monitor progress with the implementation of the FTA Agreements and the technical and financial assistance promised by the EU and its use in the Mediterranean Partner countries. A systematic review of the customs procedures could provide recommendations for improvements in customs clearance. The study suggests that areas that deserve early attention include the consistent implementation of the WTO valuation agreement, improved post-clearance audits and support for the protection of intellectual

property rights. Several measures are suggested in the area of competition policy, including state aid that takes country-specific situation into account. The EU could support the enhancement of capacity of competition authorities in the Mediterranean partner countries to monitor and enforce this competition policy for example through cooperation among sector regulators of the EU and the Mediterranean region and among the MED partners themselves. The report also provides policy recommendations with the aim of supporting mechanisms that enhance transparency and competition in the government procurement. The EU technical assistance could be directed at strengthening the capacity of the MED countries to monitor violations of IPRs and to enhance the enforcement capabilities of the MED countries. The EU could assist regional partners in identifying the principal obstacles to investment and support an action plan to remedy any shortcomings. One approach that has obtained some success and deserves further analysis is the creation of One Stop Shops where investors can obtain relevant information and hands on support to facilitate their investment projects.

# 1. Introduction

The Terms of Reference state that this study should evaluate the effects of the current Euro-Mediterranean Free Trade Agreement for the EU and the Mediterranean region, in order to assist policy makers in defining the next steps in the Euro-Mediterranean trade Road map till 2010 and beyond.<sup>1</sup> In particular the study should:

- Provide quantitative, qualitative and sectoral assessments of the impacts of the Euro-Mediterranean free trade area on trade and investment in order to clearly evaluate which effects for the EU and the Mediterranean region the partnership brought so far. In this context, particular attention should be given to South-South integration, e.g. the Agadir Agreement;
- To point out the partnerships' strengths and weaknesses and point out how to further enhance trade and economic integration in the Euro-Mediterranean region;
- To suggest future actions and instruments to be taken to address the weaknesses identified, with a view of realizing the goal of a well functioning Euro-Mediterranean FTA by 2010 and beyond. The study should define the opportunity of pursuing additional negotiations on a number of non tariff and regulatory issues with a view to establish deep and comprehensive free trade agreements in the Euro-Mediterranean region.

The study was to focus on the most active partners of the Euro-Mediterranean FTA i.e. Morocco, Tunisia, Egypt, Jordan and Israel, which will be referred to as MED5 in this study, and focus on all aspects of the trade and investment relations. An important aspect of the study was to obtain the perception of the economic operators in the EU-MED region with respect to the present FTA and the prospects for future deeper integration.

Section 2 provides an overview of the initiatives and programs that have guided the EU-Mediterranean relations since the mid 1990's. It briefly presents the initial Barcelona Process that started the process of creating an area of shared prosperity

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<sup>1</sup> Countries that have signed an Association Agreement with the EU are: Algeria, Egypt, Tunisia, Israel, Jordan, Lebanon, Morocco. Syria has a Cooperation Agreement with the EU and the Palestinian Authority has an Interim Cooperation Agreement with the EU.

in the Mediterranean with an emphasis on the creation of a free Trade Area (FTA), the Agadir Agreement that aimed at fostering closer economic relations between the Mediterranean countries and the Association Agreements that were signed between the EU and most of the MED countries. The deepening of this process is discussed with a brief description of the Five Year Work Program till 2010, adopted in 2005, the 2008 establishment of the Union for the Mediterranean and the European Neighbourhood Policy (ENP).

Section 3 starts with a brief description of the economic performance and trade integration of the Mediterranean countries. It is followed by an analysis of the structure of Euro-Mediterranean and intra-Mediterranean trade and investment. This section provides detailed information on the trends in the dismantlement of tariffs, the development trading partner and by composition of the EU-MED trade and trade between the MED countries themselves. The data on which this analysis is based are the most recent ones, but do not go beyond 2006. As several FTAs were signed as late as 2004 and as the tariff reductions were phased over several years, the analysis does not provide a full picture of the impact of the FTA. It does however provide a clear sense of the structure and direction of this trade after partial FTA implementation. Similarly with the South-South trade as the Agadir Agreement was signed only in 2007. A review of investment flows is also provided; even though the data base for this analysis is particularly weak.

Section 4 assesses to what extent the volume of trade between the EU and the Mediterranean countries conform to the volume of trade that can be expected between trading partners based on their economic mass and distance. This is done by reviewing the specialized literature (gravity modelling) on this subject.

Section 5 reports on the non-tariff barriers as they affect the EU-Mediterranean trade and the trade amongst MED countries. This section looks in particular at product standards, phyto- and environmental standards, customs and trade facilitation, intellectual property rights and public procurement. In the absence of resources to undertake detailed country studies, this Section relies exclusively on the review of the pertinent literature and the various data bases and web sites where relevant information could be found as well as on the findings of the business survey.

Section 6 reports the findings of a especially designed business survey that solicited the opinion of the economic operators engaged in trade and investment between the EU and the MED5 and amongst MED countries to gather their views of the functioning of the FTA, the non-tariff barriers they face and the measures they would like to see implemented to achieve a deeper economic integration.

Based on the findings of these various investigations – the analysis of trade flows and NTBs as well as the results of the business survey - Section 7 focuses on

several sectors that appear of key importance to the region, either because of their recent important contributions to trade and investment trends or for the potential contribution they could make to future growth.

Section 8 reviews the strengths and weaknesses of the FTA as a framework to foster growth and development in the MED region. It notes that so far these policies have led to “shallow” integration and that future steps towards integration may need to focus on “deep” integration that includes measures to tackle the remaining non-tariff barriers as well as greater coordination and alignment of policies to promote good government, economic reform and structural change.

Section 9 then provides conclusions and set of recommendations that follow from the above analysis. These should inform the ongoing discussion and shape the proposed Roadmap for 1020 and beyond that aims at deeper integration of the EU-MED region.



## **2. Overview of the Euro-MED Relations**

The Euro-MED relations have since the mid-1990s been guided by a number of initiatives and programs. The Barcelona Process started the process to create an area of shared prosperity in the Mediterranean with an emphasis on creating a free trade area. This led to the signing of a number of Association Agreements with countries from the Mediterranean region. Progress has been slow and initiatives have been launched to move forward to better internalize these cooperation agreements and to move from shallow integration that characterizes free trade agreements towards deep integration that calls for harmonization of the regulatory framework.

### **2.1. The 1995 Barcelona Declaration**

The Barcelona Conference of 1995 brought together the Ministers for Foreign Affairs of the 15 EU Member States and the following 12 Mediterranean non-member countries (MNCs): Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, the Palestinian Authority, Syria, Tunisia and Turkey. With the signing of the Barcelona Declaration in November 1995 a new phase in the Euro-Mediterranean partnership was started. It aimed at creating an area of shared prosperity in the Mediterranean and recognized that this required sustainable and balanced socio-economic development and an improvement of the living conditions of the populations, an increase in the employment level and the encouragement of regional cooperation and integration. A key policy instrument to achieve this outcome was to progressively establish a free trade area (FTA) between the EU and regional partners and between these regional partners. The EU intended to support what has been called the Barcelona Process with substantially increased financial assistance.

Implementation of the Barcelona Process was to be realized through a set of Euro-Mediterranean agreements and free trade agreements to be concluded between the Mediterranean Non-member countries (MNCs) themselves. The parties

have set 2010 as the target date for the gradual establishment of the FTA which will cover substantially all trade in compliance with the World Trade Organization (WTO) obligations. Tariff and non-tariff barriers to trade in manufactured products would be progressively eliminated in accordance with timetables to be negotiated between the partners. Trade in agricultural products and services would be liberalized in stages.

Setting up a FTA required that suitable measures were agreed upon with regards to rules of origin, certification, protection of intellectual and industrial property rights, and competition. The agreed upon work program also specified the need to promote the use of Community technical rules and European standards for industrial and agri-food products and certification procedures. As well as harmonize customs rules and procedures, and the elimination of unwarranted technical barriers to trade in agricultural products and progressive elimination of obstacles to direct foreign investment. These issues were articulated in the work program.

The declaration would monitor the progress achieved through periodic meetings of the Ministers for Foreign Affairs of the Mediterranean partners and the EU, to be prepared by a Euro-Mediterranean Committee for the Barcelona process. This Committee would evaluate the follow-up to the Barcelona process and for update the work program.

## **2.2. The Follow up of the 1995 Barcelona Process**

### **Association Agreements**

The EU has signed Association Agreements with Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, and Tunisia. An interim Association Agreement guides the relations between the EU and the Occupied Palestinian territory. Tunisia was the first country that signed an AA with the EU in 1995, with ratification in 1998. (Table 1). The Tunisia AA set the stage for the successor AAs with other Mediterranean countries which basically covered the same subjects, provided the same time table for the reduction of tariffs and committed the Partners to pursue a policy to promote social and economic development.

The key components of the AA that impact directly on economic integration with the EU and that will be further analyzed in this report can be summarized as follows:

**Table 1. Barcelona Process: Association and Cooperation Agreements**

Country	Association agreement was signed	Association agreement came into force
Algeria	2002	2005
Egypt	2001	2004
Israel	1995	2000
Jordan	1997	2002
Lebanon	2002	2006
Morocco	1996	2000
The Palestinian Authority	Interim Association Agreement 1997	
Syria	Association Agreement initiated in December 2008	
Tunisia	1995	1998
Turkey	EU-Turkey Customs Union 1995	
Libya	Observer status since 1999	

Legally binding provisions:

- Gradual liberalization of imports of industrial products that originate in Tunisia with the exception of the products referred to in Annex II to the Treaty establishing the European Community. Goods need to have a certificate that complies with the rules of bilateral cumulation of origin with the EU, Algeria and Morocco<sup>2</sup>; exceptions exist for protection of infant industries, for goods that originate in industries that are being restructured and have serious social consequences; goods with an agricultural component are subject to Community rules for agricultural imports;
- The liberalization of agricultural and fishery products are subject to detailed rules that provide for the elimination or reduction of customs duties, and tariff quotas for goods specified in the Agreement. Provisions are made for a periodic review of these rules and regulations with a perspective of further liberalization;
- The Parties shall provide suitable and effective protection of intellectual, industrial and commercial property rights, in line with the highest international standards; this shall encompass effective means of enforcing such rights.

Cooperation clauses and not legally binding commitments:

- Widen the scope of the Agreement to cover the right of establishment of one Party's firms on the territory of the other; The Association Council

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<sup>2</sup> Rules of Origin are complex and depend also on the processes carried out on non-originating material that confers originating status (71 pages of instructions)

will make a first assessment of the achievement of this objective no later than five years after the Agreement enters into force.

- Deepen the commitments to the stipulated adhesion to the WTO GATS obligations, particularly the obligation to grant reciprocal most-favoured-nation treatment in the service sectors covered by that obligation;
- Enforcement of competition rules, including state aid, with exception for steel products, that restrict and distort competition or establish dominant position, insofar as these actions affect trade between the Community and the signatory country; implementation rules were to be agreed upon within five years after the signature of the AA and the Community was to be kept informed of the measures introduced to comply with this commitment;
- Commitment for intra-regional trade with the Maghreb countries;
- Investment promotion and protection measures;
- Cooperation for standardization and conformity assessments;
- Trade facilitation pertaining to the simplification of customs checks and procedures, the use the Standard Administrative Document and the implementation of a good transit system with the EU.

Negotiations regarding the further liberalization of trade in agricultural products are presently ongoing. Such negotiations have recently been concluded with Egypt (2009), Israel (2008) and Jordan (2006) and are in progress with Morocco. Negotiations on services had been initiated with Morocco, Algeria, Egypt and Israel while negotiations on standards for industrial products (ACAAs) were under preparation (and were launched with Israel for the pharmaceutical sector).

## **Agadir Agreement**

The Agadir Agreement established a free trade zone between Jordan, Egypt, Morocco and Tunisia. It is open to include other Arabic Mediterranean nations. Signed in Rabat on 25 February 2004 it was ratified on 1 January 2006 and came into force on July 6, 2006. Effective implementation was to be initiated as of March 27th 2007 after all requirements for the implementation were, the last one being the publishing of customs circulars of the four member countries, the last one by Morocco.

The Agadir Agreement is fully in line with the objectives of the Barcelona Process and is supported by the E.U. Its policy objectives are ambitious. They include (i) developing economic activity, support employment, increase production, and improve the standards of living within the Member States, (ii) unifying

the public and private economic policies of the Member States in areas dealing with: external commerce and agriculture, industry, the tax system, the financial system, services, customs and that which facilitates competition between the member states, and (iii) bringing closer the economic legislations of the Member States in the hope of producing an adequate climate for the conditions of merger between the Member States.

The Agreement specifies the gradual reduction of tariffs on the import of industrial goods, according to specified schedule and categories of goods. The free trade objective was originally targeted for implementation by 2006. The freeing of the agricultural products would be completed in correspondence with progress made towards development of commercial exchange between the Arabic nations for the development of a Greater Arabic Free Trade Zone. The Agreement calls for Member States to implement the WTO requirements contained in the schedule for the General Commercial Services Agreement. The Agreement prohibits the imposition of new taxes of duties and specifies the adoption of diagonal rules of origin. Public procurement should eliminate national preferences. Special provisions are stipulated to (i) protect domestic producers against surges in imports that would cause or threat of immense damage to local industry or agriculture, (ii) permit temporary protection for infant industries, and (iii) take protective actions in case of strains on the balance of payments. The Agreement protects intellectual property and outlaws NTBs.

While the details of the Agadir Agreement are promising, its implementation has been greatly delayed because of procedural problems. It will require political commitment and close monitoring of the implementation of the Agreement to draw its benefits and increase the level of trade and investment between the signatories of the Agadir Agreement. Such trade is for the moment at a very low level (see Section 3).

## **MEDA**

Launched in 1996 the (MEDA I) and amended in 2000 (MEDA II) enables the European Union (EU) to provide financial and technical assistance to the countries in the in the framework of the Euro-Mediterranean partnership that include Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, the Palestinian Territory, Syria, Tunisia and Turkey. The MEDA program replaced the various bilateral financial protocols that existed between the EU and the countries in the Mediterranean basin. Support for the Euro- Mediterranean free trade area and free trade between the NMCs featured high on program agenda. The MEDA program has now been replaced by a single instrument, the European Neighbourhood Partnership Instrument.

## **Euro-Mediterranean conferences**

Since the 1995 Barcelona Conference, seven more Euro-Mediterranean Conferences of the Ministers for Foreign Affairs have been held: in Malta in April 1997, in Stuttgart in April 1999, in Marseilles in November 2000, in Brussels on 5 and 6 November 2001, in Valencia on 22 and 23 April 2002, in Naples on 2 and 3 December 2003 and in Luxembourg on 30 and 31 May 2005. In addition, think tanks involving the Ministers for Foreign Affairs were organized in Palermo in June 1998 and in Lisbon in May 2000.

## **Barcelona 2005 Five Year Work Program**

The 10<sup>th</sup> Anniversary Euro-Mediterranean Summit, held in Barcelona in 2005, agreed on a work program to implement the objectives of the Barcelona Declaration of 1995 i.e. the Roadmap for 2010.

This Roadmap was designed and implemented to create a FTA by 2010. Its components were to be developed in a comprehensive way, in accordance with the provisions of the Association Agreements. The program includes a number of steps that would enhance the trade liberalization measures included in the AAs between the EU and the NMC and promote further the economic integration between the NMCs. Key elements of this Roadmap include

- The progressive liberalization of trade in agriculture, processed agricultural products and fisheries products, with a possible selected number of exceptions and timetables for gradual and asymmetrical implementation, taking into account the differences and individual characteristics of the agricultural sector in different countries, building on the Euro-Med Association Agreements and regional free trade agreements and based on the Rabat roadmap. Non-tariff aspects of agricultural trade liberalization should be properly dealt with. Negotiations will start with partner countries as soon as possible;
- The progressive liberalization of trade in services taking into account the non binding Framework Protocol adopted in Istanbul in 2004, in order to open negotiations on a voluntary basis on agreements on services and establishment of partner countries as soon as possible;
- Advocate the acceleration of the conclusion of free trade agreements with each other, and promote other regional agreements and bilateral trade agreements; and work for the entry into force of the Agadir Agreement at the latest by the end of 2005;

- Take advantage of the adoption of the Pan-Euro-Mediterranean protocol on cumulation of origin as a step towards promoting intra and inter-regional integration;
- Approximate standards, technical legislation and conformity assessment, and provide support and assistance to that end, so as to pave the way for the negotiations of Acceptance and Cooperation Assessment Agreements on Industrial Products (ACAAs) and the elimination of technical obstacles to commerce at the latest by 2010;
- Take measures to promote the conditions to allow a substantial increase in the European investment rate in southern Mediterranean partner countries;
- Encourage the increase of the investment rate in the region by supporting regional programs and networks towards this end. Establish an ad hoc group to examine ways and means

### **European Neighbourhood Policy (ENP)**

The Barcelona process runs in parallel with the broader policy of the ENP, which aims at achieving deeper economic integration between the EU and its neighbours. First outlined in 2003 it was followed by a Strategy Paper in 2004 that sets out in concrete terms how the EU proposes to work more closely with these countries. The ENP goes beyond existing relationships to offer a deeper political relationship and economic integration. In addition to free trade in goods and services this will require strong legally-binding provisions on the implementation of trade and economic regulatory issues, intellectual property rights, public procurement, trade facilitation and competition. Countries included in the ENP include most Mediterranean countries but also East European neighbours. The central element of the European Neighbourhood Policy is the bilateral ENP Action Plans that are agreed between the EU and each partner.

These action plans should achieve over time the desired deep integration while taking the diversity of the various countries into account. The first phase towards deeper economic integration has started, through implementation of the ENP Bilateral Action Plans that set out an agenda of political and economic reforms with short and medium-term priorities. The next step will be deep and comprehensive free trade agreements, which will liberalize substantially all trade and codify regulatory alignment including intellectual property rights, standards, public procurement, trade facilitation and competition. The Action Plans also encourage partners to conclude bilateral or regional agreements to boost South-South or East-East

trade and investment. As such, the ENP calls for deepening and expanding the AAs with Mediterranean partners.

## Union for the Mediterranean

The Barcelona Process was re-launched in 2008 as the “*Union for the Mediterranean*” (UOM) at the Paris Summit for the Mediterranean. The Partnership includes all 27 member states of the European Union, along with 16 partners across the Southern Mediterranean and the Middle East.<sup>3</sup> This re-launching aimed to infuse a new vitality into the Partnership and to raise the political level of the strategic relationship between the EU and its southern neighbours. While maintaining the *acquis* of its predecessor, the Barcelona Process, including the various AAs, the UOM offers more balanced governance, increased visibility to its citizens and a commitment to tangible, regional and trans-national projects.

This initiative acknowledges that despite the steady advances made in South-South economic integration, the achievements remain below potential. Further and faster reforms are needed if the EU's Mediterranean partners are to reap the potential benefits of globalization and free trade with the EU and regional integration. Economic reforms, gradual free trade of industrial products with the EU, and improvements in economic governance, have not been enough to attract the domestic and foreign investment needed to boost standards of living in the region. Growth has been good but insufficient. Reforms have been encouraging but short of initial expectations. Free trade with the EU has favoured exports and investment. The combined effect of these shortcomings has been a slower than expected process; insufficient growth and continued demographic expansion have increased the prosperity gap between the EU and most Mediterranean countries and there has been no real economic convergence. Recognizing that the formula of trade plus investment plus cooperation remained as pertinent as it was in 1995, the initiative acknowledges that it can do more to promote trade, investment and co-operation in the region. Yet, the EU noted that the greatest need was for the countries of the region to take up these opportunities as part of their domestic economic policies. In sum, the Partnership has witnessed a strong promotion of multilateral and bilateral relations, but now needs a qualitative and quantitative change, to spur investment and employment creation and optimize the use of human resources.

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<sup>3</sup>The non EU members are members and observers of the Barcelona Process (Mauritania, Morocco, Algeria, Tunisia, Libya, Egypt, Jordan, Palestinian Authority, Israel, Lebanon, Syria, Turkey and Albania), and the other Mediterranean coastal states (Croatia, Bosnia and Herzegovina, Montenegro and Monaco).



Initiatives planned under UOM aim at (i) enhancing the sense of co-ownership by Mediterranean Partners (ii) correcting the lack of institutional balance between the weight of the EU on one side, and the Mediterranean partners on the other, and (iii) improving the visibility and the perception by citizens that initiatives are taken to tackle their daily problems and their real needs. The UOM initiative held its first Meeting of Heads of State in 2008 and reaffirmed the political will of all member states to strengthen the partnership required to implement the Barcelona Process and its Action Plan and provided a short list of concrete regional projects to promote regional cohesion and economic integration, and to develop infrastructural interconnections.

### **Roadmap for 2010 and Beyond**

At the 2007 Euro-Med Trade Ministerial meeting in Lisbon Ministers agreed that a Senior Officials Working Groups would work on a roadmap of next steps in the field of trade till 2010 and beyond. This request stemmed from their observation that the level of trade and EU investment in Southern Mediterranean countries and the level of South-South trade remained below expectations.

The broad outlines of the new Roadmap for 2010 and beyond is likely to include measures to (i) complete the network of free trade agreements in the Euro-Mediterranean region, (ii) strengthen the trade partnership by 2010 or shortly thereafter and (iii) to deepen the economic integration of the countries of the Mediterranean region. The overarching objective of the Roadmap is to move towards integration that goes beyond trade (shallow integration) towards one that free trade in all goods and service with the harmonization of the regulatory environment that impacts on trade. The latter agenda is likely to include the elimination of all non-tariff barriers for trade and measures to promote investment in the region. These could include obtaining legally binding commitments on issues such as technical regulations on industrial products, standards and conformity assessment, sanitary and phyto-sanitary measures, protection of intellectual property rights, an agreed upon policy on competition and public procurement and customs and trade facilitation measures. Beyond aiming for deep integration between the EU and the Mediterranean region the Roadmap is likely to look for measures to expand the South-South trade, which has lagged behind the expansion of North-South trade. Putting in place these various policies and instruments will require political will, focused efforts and close monitoring. It does however contain the promise of faster and deeper economic integration with its ultimate aim of faster economic development.

## **3. Assessing the Trade and Welfare Effects of Euro-Mediterranean Integration**

### **3.1. Introduction and Summary**

This chapter analyses the trade effects of a Euro-Med agreement looking at both EU integration with the Mediterranean (MED) countries (N-S agreement) and closer integration between the MED countries (S-S agreement<sup>4</sup>). In this chapter we summarise the results obtained from the full report which can be found in the Appendix 1.

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 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 efficiency and welfare enhancing and arises whenever more efficiently produced imported goods replace less efficient domestically produced goods. Trade diversion is efficiency and welfare reducing and occurs when sources of supply switch away from more efficient non-partner countries to less efficient partners. The net 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 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

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<sup>4</sup> We use the term “South-South” agreements to any agreement among the Mediterranean partner countries studied here (MED) excluding the EU.

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 economic 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 is 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<sup>5</sup>. 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 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 exports 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, which 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.

This part of the report is a short policy oriented summary of the main findings of the technical document that can be found in the Appendix 1. Here we aim at providing a digested synthesis of the key findings and refer more interested readers to the appendix for a more in depth analysis.

The whole analysis in the appendix can be summed up thus:

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<sup>5</sup> 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.

### Background

- 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 despite high levels of protection in some countries, suggesting that liberalisation could have significant economy-wide effects because pass through effects can be broad.
- There are already substantial preferential schemes in the region where main partners are the EU, PAFTA or the US. To the extent that wider 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; otherwise firms will have to duplicate paperwork and will not be able to use "cumulation", i.e. will not be able to gain preferences if they use intermediate goods from the rest of the region.
- Levels of protection remain high, except for Israel (and Turkey), suggesting that its removal via preferential liberalisation has the potential of causing strong trade effects, be these from trade creation or trade diversion.

### Potential Impact of North-South Agreements

- Preferences into the EU market for MED countries have remained largely unchanged in the last decade. This suggests that the main impact of the AAs is to be found on the side of imports of MED countries as the agreed tariff dismantlement takes place. The EU has entered into preferential trade agreements with other countries in the last decade, which means that the competitive advantage of MED exporters that derive from their preferential access to the EU market is less than would appear when comparing preferential access tariffs with MFN tariffs<sup>6</sup>.
- Growth of MED exports to the EU has been outpaced by growth of exports to the rest of the world. This is probably because of the aforementioned stability of preferences and because the rest of the world has been liberalising at a faster rate than the EU. Also growth in some other parts of the world has been faster than growth in the EU itself, thus exercising a greater demand pull.

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<sup>6</sup> See Hoekman and Nicita (2008) Table 3, p. 10.

- For most of the region the “natural trading partner” is the EU which should imply that the N-S agreement will be net trade creating. However Israel and Jordan have traditionally traded as much or more with the US than with the EU. This may be due to preferences or historic ties; there is nothing in the data to suggest a reversal of this in foreseeable.
- 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. However growth of MED imports from the EU have also been growing at a slower rate than growth of imports from the rest of the world, which suggests that little trade diversion has occurred in the last decade.
- MED countries are still in the process of tariff dismantling with respect to the EU. Upon similar implementation times, there is evidence of heterogeneity in the amount of tariff lines that have been fully liberalised.
- Preferences and utilisation. A major issue regarding the smooth functioning of the AA's is the extent to which the partners can actually take advantage of the preferences available. This was studied in detail for the MED 5. We found that about 80% or more of exports came in duty free (split evenly between those with zero MFN tariffs and those with a zero preferential rate) except for Jordan at 70%. There were however up to 10% of exports (18% for Jordan) in categories where there should have been a zero tariff but where a non-zero MFN rate was actually paid. This is thought to be a common issue where tariffs are very low and the cost of obtaining certificates of origin is high. A detailed analysis was carried out on the top exports from the partners to the EU to see if particular products stood out. Articles of apparel showed up in all cases (except Israel and Jordan) as major products having most trade duty free but up to 10% or more paying duty. This could be due to the classic issues of the costs of proof of origin. “Mineral fuels” appeared as a sector where the MFN tariff was paid for a significant proportion of trade from some countries even though most was duty free. Edible vegetables also occurred in the list, though there are certain well known complexities of origin in the Israeli case. Further research would be needed to find out whether the 10% or so of trade not getting preferences is due to unimportance of the value of the preferences, misclassifications, or the high cost of origin proof. If it is the latter then action might be needed.

#### Potential Impact of South-South Agreements

- Even though the Agadir agreement was ratified only in 2006, and effectively implemented in 2007, the change in preferences in that year is

very small given that all Agadir countries are also party to PAFTA which came into force in 1998 and grants duty free access to all its signatories. This suggests that the effects of Agadir cannot be easily disentangled from the effects of PAFTA.

- There is little indication that MED countries are each others' "natural trading partners" which suggests that the potential S-S agreements will not necessarily be net trade creating. Even though trade between the MED economies is very low, it is exhibiting positive growth.
- The MED region imports significantly different products from the region than from the rest of the world which suggest that there is also 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 efficiency enhancing as it removes previous trade diversion created from other preferential agreements.
- Looking at how similar MED partner exporting structures are to other MED partner importing structures to assess how well the countries could supply one another other, we see that similarity is very low. This suggests that these partners are not each other's natural trading partners and hence that any of the S-S agreements are likely to have limited trade effects.
- The similarity of the countries' exports to the world can also be used to assess the extent of further gains from specialisation through trade creation. Where countries sell similar products there is potential scope for fine specialisation in different activities, whether whole product ranges, niches within product ranges, or at different stages in production chains. This kind of specialisation is known as Intra Industry Trade (IIT). The MED partner's exporting structures, even though they continue to be highly dissimilar they are becoming increasingly similar. This is a necessary if not a sufficient condition for the emergence of niche specialisation or IIT. The current degree of "deep market integration" between the EM5 countries as identified by way of IIT indicators is still low but it is growing over time.

### *Sectoral Issues*

- The overall level of tariffs in the MED partners apart from Israel is significantly higher than the EU, most strikingly in beverages, but importantly in manufactures. It is notable that Tunisia and Morocco both have MFN manufacturing tariffs over 20%, despite the former's reputation for

openness. The identification of tariff peaks is delicate. We looked the number of tariff lines with more than 3 times the average tariff in a set of “Broad Economic categories”. These are not easy to interpret since peaks are less important when the average is low. Not surprisingly perhaps peaks were mostly highest in “food beverages and tobacco”, though Tunisia had 43 peak rates in the sector “Industrial supplies not elsewhere specified” on top of an average tariff of 19%. Of course these tariffs should not apply in the case of FTA products. It seems that most tariffs have been removed within the PAFTA and Agadir groupings. But it is also worth remarking that on the most recent data we could find (2005 and 2008) the tariff dismantling vis-à-vis the EU was not yet fully complete except for Israel which had over 90% of tariff lines at zero for the EU, whilst other partners were around 40%.

- The MED region predominantly exports ‘mineral fuels’ and textiles whereas imports are largely concentrated in ‘machinery/ transport equipment’ and ‘manufactured goods’. A closer analysis of Textile & Clothing exports shows important concentration, whilst specialisation has taken place in the higher value added sectors such as ‘apparel & clothing’ and is mainly oriented to the EU market. Only Turkey stands out as a major car exporter.
- Interestingly, the overall numbers for agricultural trade suggest less problems for the MED partners selling into the EU than one might have expected. The overall share of agriculture in total non petrol exports fell from 1996 to 2006 from just under 13% to just under 9%. The share in exports to the EU is actually slightly higher than to the rest of the world. There is obviously potential for expansion if all barriers could be removed, but this would require a challenging approach to harmonisation of SPS standards and mutual recognition which not all partners would be ready for. Using a variety of market share and “revealed comparative advantage” indices, we examined the exports of products where the Med partners had demonstrable strengths, but in many cases exports to the rest of the world (RoW) were greater than to the EU. Egyptian rice for instance sold better in the RoW than in the EU. It is often surmised that the strictness of EU SPS measures poses obstacles to agricultural exports. Such measures may of course be unavoidable, but cooperation may ease compliance problems. In fact sharp falls in exports followed EU SPS measures on oranges from Egypt and Morocco fish products in addition to the perennial Egyptian potato and Brown Rot case. We looked at the overall number of “Rapid Alerts” of products identified as potentially dangerous imports. It turns out that whilst Turkey has one of

the highest numbers of cases in the world, the other countries in the region have relatively few cases (i.e. fewer than Brazil, Argentina or Vietnam). This is an area where deep integration can help but trade measures alone would be inadequate (See tables in Appendix 5.1.2)

- With tariffs especially on the EU side being especially low, it is important to enquire about non tariff barriers (NTBs). The analysis of trade data alone cannot tell one whether particular flows have been affected by the existence of NTBs let alone what would be the consequence if removing any there may be. We can however examine the data for anomalies that might indicate the presence of NTBs, for example when a country succeeds in selling something in one market but not into another very similar one. Of course there are many possible explanations, including idiosyncrasies of demand and deliberate marketing choices. But this can be starting point. We therefore sought to identify for Morocco, Tunisia, Israel Egypt and Jordan those products where the gap was greatest between the share of total exports of these products in sales to the RoW and to the EU, in other words products which were demanded by the rest of the world but much less so by the EU. It was not a surprise that in every case the relevant 6 digit categories added up to a very small share (typically under 5%) of exports to the EU. However it was somewhat surprising to discover that these fifteen 6 digit products at the top of the discrepancy list accounted for a rather high share of sales to the rest of the world. For example we identified fifteen 6 digit products accounting for 28% of Morocco's total exports but only 12% of Morocco's exports to the EU against 69% of their exports to the rest of the world. Similar numbers appeared for each of the other partners (See Appendix Table A12). In nearly every instance the product in question was doing well in the EU market relative to other suppliers. Again we must stress that such data do not prove the existence of trade barriers in the EU. And it is quite possible that even if it were relatively harder to sell into the EU, exports might be supply constrained so that scope for expanding total exports could be limited. It is worth noting however that the products in question do not appear to be ones that are particularly suited to Gulf markets, though we have not been able to examine this in depth. We must refer the reader to Chapter 4 and the business survey in Chapter 5 for the implications of this.

#### Foreign Direct Investment (FDI)

- Data is far less available here than for trade, but in aggregate all MED countries show a successful FDI performance. 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. The source of FDI varies and only in Morocco is the EU dominant, as opposed to the US or the Gulf. Improving the business climate could lead to larger FDI inflows.

### **3.2. 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 economic efficiency 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 efficient, trade diversion is disadvantageous; the interaction between these forces allows us to capture the overall 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 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. Deep integration does not just affect market access. Done wisely it affects the regulatory system of the whole economy whether home production as well as exports. It may permit 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.

## Macroeconomic Indicators

In this section we review indicators which shed light on the general extent and reach of any type of trade liberalization. For example, countries which have higher trade to GDP ratios (i.e. trade as a proportion of GDP is high) are likely to see larger economy wide effects from liberalization than those countries where trade occupies a little share of GDP. Hence this ratio can serve to gauge the possible pass-through effect of liberalization. Table 1, in the appendix, shows that, there is important heterogeneity across MED partners, both in terms of economic performance, and geo-demographical characteristics. As such, Mauritania is the poorest with a GDP per capita (non PPP adjusted) of \$619 whilst Israel is the richest with a GDP per capita of \$18,954. 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 29%. 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 2005 (with the exception of Algeria and Syria) some more important than others (see Mauritania, Jordan and to a lesser degree Albania). In terms of trade openness, most MED countries have quite high openness indices (import + export as a share of GDP) hence suggesting that changes in trade patterns, as a result of trade liberalisation, could have important impacts on the overall performance of the economies concerned. Figure 1 shows current bilateral relations in the Euro-Med area in 2009. It shows the great complexity of trade agreements and highlights the need for compatible rules of origin to be agreed throughout the region, so exports using that regional intermediate inputs can circulate freely. It also highlights the *potential* dangers of conflicting deep integration obligations. Fortunately this has not yet been a problem.<sup>7</sup>

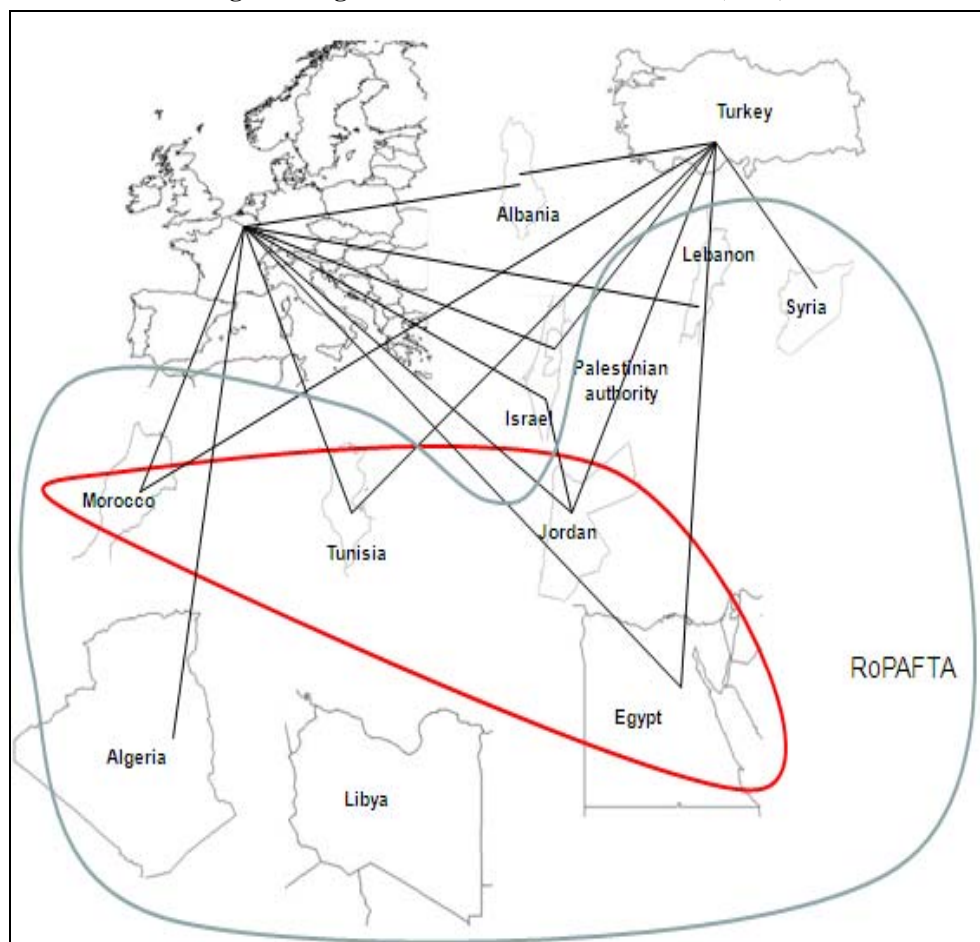
Further to the agreements in the region as shown above, MED partners are also engaged in other preferential trading schemes, (see appendix1 Table 2). Whilst these tend to be regional in nature, others are not. Morocco, Israel and Jordan have agreements with the USA. Further to the implications of overlapping agreement in

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<sup>7</sup> See Ghoneim et al. IDRC

terms of management of preference, the more agreements one country has, the closer it will be moving to free-trade and hence the lower the scope for trade diversion.

**Figure 1. Agreements in the Euro-Med Area (2008)**



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

*Source:* WTO, RTA notified agreements.

### **Tariff Barriers to Trade**

In analyzing the effects of a preferential trade agreement, 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. This means that the current tariff can serve as an indicator of the possible magnitude of the effects of liberalisation where higher tariffs will imply that liberalising preferentially will give a competitive edge to imports from a given destination at the possible detriment of imports from a cheaper source. Alternatively, removing high tariffs is likely to stimulate cheap imports and hence create trade. Which of these effects will predominate will have to be determined by looking at cost structures across different origins and the shares of trade with preferential and non-preferential partners. Table 2 shows the evolution of weighted average MFN tariffs by MED countries since 1995<sup>8</sup>. These are compositional<sup>9</sup> 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 relatively high for Algeria, Egypt, Mauritania, Morocco and Tunisia which suggests that the effects of preferential liberalisation will be highest for these countries.

**Table 2. Evolution of weighted Average MFN Tariff by Country**

Country	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08
Albania			14.4				11.3	8.4			7.4		5.9	
Algeria			16.9	17.3			15.2	13.0	12.0		11.7	11.9	11.6	
Egypt	16.7			13.7				13.8		13.1	13.7			
EU	4.4	4.4	3.8	3.4	2.9	3.2	3.3	3.2	2.9	2.7	2.7	2.5	2.6	
Israel										2.7	2.6	2.6	2.5	2.6
Jordan						18.9	12.1	12.7	11.4		12.0	9.3	9.2	
Lebanon					11.6	16.9	8.2	6.3		5.3	5.6	5.5	5.6	
Libya		21.3						25.1						
Mauritania							9.9					7.2	10.1	
Morocco			17.3			25.4	24.6	24.5	24.9		19.9	18.2	17.9	
Syrian								15.5						
Tunisia	27.4			25.7				26.4	22.7	22.4	19.7	19.2		
Turkey	6.7		5.7		5.4				4.4		3.8	3.9	4.4	

Source: Own calculations based on Trains (coverage varies due to data availability).

<sup>8</sup> The table is taken from the Appendix Table 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.

<sup>9</sup> The share of high and low tariff goods in the total may vary over time.

It is also important to consider tariffs at a finer level of aggregation so as to identify possible sectors which may be impacted most by either trade creation or trade diversion. We do this in subsequent sections where we look at tariff structures across 10 product groupings.

### **Analysis of Trade by Geographical Origin and Destination**

A general rule of thumb, from the literature, is that where countries are already trading a lot we may consider them to be natural trading partners. Thus any increased in trade is unlikely to be trade diverting. So countries that already show important pre-established trade links are more likely to create a beneficial FTA<sup>10</sup>. We take as our point of departure that they are therefore ‘natural trading partners’ because they already show bilateral commercial interest and thus tend to have trade creating complementarities<sup>11</sup>. If these assumptions are true it actually makes the analysis of the impact of FTAs more complex because there is causation running from the trade flows to the FTAs as well as vice versa.

Table 3 identifies the distribution of exports by geographical destination for the MED countries in 2007<sup>12</sup>. Table 1 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 (2006). Overall the main destination of MED exports is heavily skewed towards the EU which occupies near 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 paints a very similar picture, with little incidence of intra-MED trade as imports from the region represent under 6% of total imports in 2007. The origin of imports remains heavily skewed to the EU which occupies a share just under 40% of total imports. There is

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<sup>10</sup> Although it is clearly possible that if one partner has high tariffs the other may raise prices to capture some tariff revenues, this is less likely where the partners’ firms are competing with each other. See Schiff 2001.

<sup>11</sup> The “natural trading partner” concept has been questioned. M.Schiff, though sceptical, argues that the notion can make sense in terms of in terms of complementarity or substitutability.

<sup>12</sup> Note that Table 3 in this document is a reduced form table of Table 7 in the Appendix. The appendix table is more disaggregated and takes into account bilateral trade in the region.

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.

**Table 3. Distribution of Trade 2007, %**

	EU25	ASE-AN+3*	GCC**	NAFTA	RoW	Intra-Med	Extra Med
<b>Exports</b>							
Albania	82.11	2.59	0.00	0.64	12.37	2.28	97.72
Algeria	43.56	4.32	0.04	37.95	8.71	5.41	94.59
Egypt	28.78	7.57	4.13	7.07	40.19	12.26	87.74
Israel	29.03	7.02	0.08	36.81	24.05	3.01	96.99
Jordan	3.15	5.92	17.09	27.82	30.73	15.29	84.71
Lebanon	17.05	4.70	20.49	2.81	31.54	23.41	76.59
Libya							
Mauritania	38.82	5.76	0.00	0.00	55.13	0.29	99.71
Morocco	71.88	2.79	0.80	3.49	17.51	3.54	96.46
Palestine Territory	5.19	0.06	1.47	1.04	0.19	92.04	7.96
Syria	43.04	0.55	16.33	2.61	13.66	23.81	76.19
Tunisia	79.22	0.54	0.59	1.22	8.80	9.64	90.36
Turkey	51.86	2.12	5.19	4.42	29.33	7.08	92.92
<b>MED</b>	46.61	3.56	3.29	18.28	21.35	6.89	93.11
<b>Imports</b>							
Albania	57.77	8.22	0.05	1.31	24.24	8.41	91.59
Algeria	51.11	17.34	0.78	10.14	14.80	5.82	94.18
Egypt	22.27	11.97	14.07	10.14	36.30	5.26	94.74
Israel	36.21	13.47	0.01	14.74	32.46	3.11	96.89
Jordan	24.23	19.51	24.91	5.19	13.91	12.25	87.75
Lebanon	35.04	10.06	8.61	10.08	22.68	13.53	86.47
Libya							
Mauritania	41.19	13.16	2.56	4.59	35.10	3.40	96.60
Morocco	51.40	9.99	6.37	6.98	17.88	7.39	92.61
Palestine Territory	7.84	9.32	0.17	1.01	3.26	78.41	21.59
Syria	24.42	16.78	9.85	2.64	34.18	12.15	87.85
Tunisia	64.32	6.98	1.21	4.13	13.92	9.45	90.55
Turkey	37.40	15.27	1.87	5.52	36.86	3.08	96.92
<b>MED</b>	39.89	14.16	3.22	7.32	29.63	5.78	94.22

\* 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.

Source: Own calculations, Comtrade.

The background indicators exposed in this section allow us to start diving deeper into the possible impact of preferential liberalisation.

### **3.3. Potential Impact of North-South Agreements**

The impact of the N-S agreements will largely depend on a) the height of the preference margin (which will in turn depend on the height of the MFN tariff) and b) the amount of trade between the partners. Turning first to the preference margin, it is important to note that the historical ties between the EU and the MED countries have provided these with near duty free market access to the EU since the 70's. This implies that there has been little change in MED preferences in the EU since then and hence part of the impact of the AAs will have already been accounted for<sup>13</sup>. Therefore, the impact of the AAs will be concentrated on the side of MED country imports as a result of preferential liberalisation with respect to the EU. The impact of the agreement will also depend on the depth of the agreements and on its success in removing NTBs.

#### **Aggregate Effects**

As noted in the previous section, the “natural trading partner” hypothesis posits that countries which already trade heavily with each other have revealed their preferences and are more likely to form net trade creating preferential partners. In this respect, and as seen in Table 3 the EU appears to be the “natural trading partner” of the region hence the AAs are likely to be net trade creating. However, looking at annual growth rates of trade by destination/origin, as Table 4 shows that annual export growth to the EU at 10.8% over the period 1996-2006 was lower than the growth of exports to the rest of the world (16.5%)<sup>14</sup>. This is largely due to the aforementioned lack of change in preference margins for MED country exports into the EU. This and the fact that the period under investigation was one of rapid liberalisation for the rest of the world and the according of preferential access to its market to non MED countries would explain why growth rates to the EU were lower than those to the rest of the world<sup>15</sup>. In terms of imports, we also note that annual growth of imports from the EU at 7% is half that of the growth of imports

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<sup>13</sup> The reader will note that even though preferences have remained largely unchanged in time, the EU is likely to have offered new preferences to other countries; hence there is an element of preference erosion which remains. Preference erosion and the impact of the EU's global Europe initiative on the region is beyond the scope of this study.

<sup>14</sup> Note that Table 4 is an extension of the analysis in the appendix Table 8. The difference in growth rates is due to Table 4 being calculated using mirror trade flows rather than country reported trade flows.

<sup>15</sup> Further to this, the annual growth rate of the RoW outpaces that of the EU, hence it is likely that faster growing markets incur greater export growth.

from the rest of the world. While this suggests that the trade enhancing effect of the AAs has been limited, it does also suggest that there is very little evidence of trade diversion.

**Table 4. Annual Growth Rates of MED Country Trade by Origin/Destination, 1996-2006, %**

	All trade				Non-oil trade			
	X EU	X RoW	M EU	M RoW	X EU	X RoW	M EU	M RoW
Albania	10.99	15.53	10.37	20.91	10.75	13.52	10.06	19.74
Algeria	10.26	20.43	10.88	17.51	-10.26	18.28	10.70	17.52
Egypt	9.74	20.59	2.79	9.50	11.70	23.66	2.71	7.85
Israel	5.31	10.81	2.77	9.13	4.90	10.69	2.60	8.03
Jordan	3.51	25.67	9.52	21.32	3.60	25.84	9.48	17.55
Lebanon	5.38	21.06	1.57	10.37	5.23	20.95	0.16	7.59
Libya	13.18	27.11	4.73	15.97	12.09	21.68	3.36	15.91
Mauritania	6.08	13.41	6.53	17.44	6.10	9.22	5.64	20.13
Morocco	6.19	10.41	8.44	17.94	5.99	9.88	7.68	15.71
Palestine	22.58	8.21	3.45	17.66	22.64	8.06	3.45	17.52
Syria	6.68	13.19	8.26	17.45	5.61	20.00	6.92	16.40
Tunisia	7.89	13.87	6.68	11.39	7.57	12.65	5.94	10.87
Turkey	15.13	20.33	10.11	18.22	15.07	19.83	10.00	17.17
EURO-MED12	10.78	16.51	7.28	14.24	9.88	14.89	6.96	12.83

Source: Own calculations from Comtrade (mirror flows).

Where actual trade diversion appears to be limited, it is also important to consider the potential for trade diversion. This is accomplished by looking, across all MED countries, at the composition of imports from the EU and comparing this to the composition of imports from the rest of the world. The more similar the composition of these imports is across the two origins, the higher the scope for trade diversion. This is because if a given MED country imports similar goods from both origins, then extending a preference to the EU and maintaining a high tariff with respect to the rest of the world will increase the probability of giving the EU a competitive edge over other non-preferential competitors. This competitive edge would be equal to the preference margin and could cause trade diversion if the EU is not the least cost producer. Table 5 reports this similarity indicator where higher values imply greater similarity and hence greater risk for trade diversion. As way of example, Table 5, shows that Algeria's imports from the EU compared to Algeria's imports from all other non-preferential partners have a compositional overlap of 39%. This suggests that there is a possible overlap between imports across origins and hence that the maximum amount of trade that could be affected by trade diversion (*ceteris paribus*) would be 39% of Algeria's imports. This assuming that all trade



will be replaced by the EU as a result of the preferences and that the EU is never the least cost producer. Countries where the potential for trade diversion is highest are highlighted and are Lebanon, Israel, Egypt, Mauritania and Algeria. Turkey already has a Customs union with the EU; hence there is no scope for trade diversion. Obviously the trade diversion that could follow from the FTA will be much lower as not all non-EU trade will be replaced by EU trade due to taste and cost factors. This is already suggested by the fact noted above (illustrated in Table 4) that imports from the EU have grown at a lower rate than imports from the rest of the world.

**Table 5. Scope for trade Diversion as a result of the N-S agreements (2006)**

Trade similarity indicator	
MAR	0.291
ALB	0.349
DZA	0.391
EGY	0.413
ISR	0.446
JOR	0.252
LBN	0.519
LBY	0.299
MRT	0.395
PSE	0.174
SYR	0.349
TUN	0.309
TUR	0.411

*Source:* Own calculations, Comtrade.

It is important to note that the AAs have been “under construction” since 1995, where they have been negotiated bilaterally and implemented at different points in time (Table 1, and Appendix1 table 2). Hence, even though preferences have remained largely unchanged for MED exports into the EU, they have been changing for EU exports to MED countries. This suggests that the main impact of the N-S agreements will depend on the extent of liberalisation of MED country schedules with respect to the EU.

Tariff dismantling has been an uneven process in the MED5 countries, largely because the AA’s came into effect at different times. This is illustrated by the evolution of the import tariffs for the MED5 (Table 6). This table is prepared using the latest available data, namely the years for which we have information on both the MFN tariff and the preferential tariff granted to the EU. The situation must have somewhat changed in recent years for which no adequate data were available; but an analysis of the available data is illuminating of the liberalization process. Comparing the unweighted average MFN tariff (first line of the Table 6) with the unweighted preferential tariff that the EU (second line in Table 6) suggests that the average pref-

erence for EU's exports is highest in Tunisia and Morocco (respectively 14% and 12% and lowest in Jordan and Egypt (see line three of Table 6). Looking at the share of tariff lines where there is a preference for the EU in total tariff lines (fourth line in Table 5; note that if the MFN tariff is zero, then there is no preference) we see that these vary from a high of 73% in Morocco to a low of 27% in Egypt. 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). This indicates that in Israel 95% of tariff lines are zero for EU imports as against 57% for MFN. At the other extreme is Egypt (with a more recent AA) where duty free tariff lines for EU imports account for only 6% of tariff lines as against 5.5% for MFN imports; the AA has thus little impact in its first year of effectiveness. 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 in terms of the amount of trade that has been liberalized seems to be fairly heterogeneous across countries. Israel is the country which has undertaken the most preferential liberalisation with 94.98% of EU imports being duty free 8 years after the agreement came into force. 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 (8 years after the agreement came into force) whilst Tunisia grants duty free access to the EU in 39.19% of tariff lines (7 years after the agreement came into force).

**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)
		2004	2008		2005	2008	
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

Note. All tariffs are unweighted averages.

Source: Own calculations, Trains raw tariff data.

## Preference Utilisation

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.

The analysis of the utilisation of preferences for MED5 exports to the EU suggest that a substantial share of MED5 trade enters the EU without benefiting from the stated preferences. Overall, 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. For instance 81% of Egyptian exports into the EU 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<sup>16</sup>. Similarly for Morocco, 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. For Jordan's export to the EU 19% of exports to the EU do not benefit from the preferences. This statistic is only 4.6% for Tunisia.

This failure to benefit from preferences could be due to onerous compliance 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. In subsequent section we consider variations of preference utilisation at a more disaggregated level. However, the reader is referred to the Appendix 1 for a more in depth discussion of this topic.

**Table 7. 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)	Un- known (3)	MFN zero (1)	MFN non- zero (2)	Any prefer- ence zero (3)	Any prefer- ence non zero (4)	Un- known (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.

<sup>16</sup> Note that where there is already a zero MFN, no preferential access is possible.

In the Appendix 1, we also consider the degree of utilisation of preferences for MED5 exports to the EU according to the top HS 2-digit products for 2007. Here we look at the average weighted MFN tariffs for the sector as a measure of the cost/benefit for applying for origin. 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. For instance in the case of ‘mineral fuels’ which, in 2007, occupied over 44% of total EU imports from Egypt (Appendix1 Table 29) we note 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 fewer than 4% of Egypt’s exports to the EU. Again referring to the Appendix1 Table 29 we note that all exports of this category are eligible for preferences and that 83% of exports in this sector benefit from duty free access. Equally, we note 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 as in the ‘articles of apparel’ sector the preferential margin is large. It is possible that some companies find particularly onerous bureaucratic procedures in trying to apply for preferences in this sector.

The Appendix1 Tables 30-33 also study the top 10 products from the other Med5 states. We find several instances of important export products which are eligible for duty free entry to the EU where a significant proportion of exporters pay duty. Of particular relevance are ‘Knitted or crocheted apparel’ in Egypt and Morocco; ‘Edible Fruits and Nuts’ in Egypt, and Morocco; ‘Edible vegetables’ in Israel and Morocco and ‘Electrical machinery’ in Jordan. These issues could be addressed in negotiations.

### **General conclusion form Potential Impact of N-S Integration**

For most of the region the “natural trading partner” is the EU which should imply that the N-S agreement will be net trade creating. However Israel and Jordan have traditionally traded as much or more with the US than with the EU. This may

be due to preferences or historic ties; there is nothing in the data to suggest a reversal of this in foreseeable.

Preferences into the EU market for MED countries have remained largely unchanged in the last decade. It is not wholly surprising therefore that growth of MED exports to the EU has been outpaced by growth of exports to the rest of the world presumably because the rest of the world has been liberalizing towards the MED partners at a faster rate than the EU which was already more open.

This suggests that the main **future potential** impact of the AAs is to be found on the side of imports of MED countries as the agreed tariff dismantlement takes place.

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. However growth of MED imports from the EU have also been growing at a slower rate than growth of imports from the rest of the world, which suggests that little trade diversion has occurred in the last decade.

MED countries are still in the process of tariff dismantling with respect to the EU. After similar implementation times, there is evidence of heterogeneity in the amount of tariff lines that have been fully liberalised.

As noted above trade expansion with the EU, could benefit if all export to the EU were able to benefit from the stated preferences Also there is a surprising high share of exports where the MED5 countries seem to be able to sell more easily to the rest of the world than to the EU. This applies to a small number of agricultural products. These market share anomalies are not however direct evidence of trade barriers and it is not clear as yet that anything in the AA's or even their better functioning could target them if they were. MED countries (apart) from Turkey and one or two specific cases do not appear to be special targets of SPS measures and regulatory harmonisation and mutual recognition of conformity assessment cannot be achieved by trade policy as such.

### **3.4. Potential Impact of South-South Agreements**

Similar to the N-S agreements, the impact of the S-S agreements will depend on the change in preference margins and the amount of trade between MED countries. Hence we have to consider the current levels of protection in each country (as proxy of the potential preference margin) and the levels and evolution of trade between MED partners.

It is also crucial to consider the degree of current preferential liberalisation in the region. Two main agreements are currently operating. Firstly, The Pan Arab Free Trade Area (PAFTA), which came into force in 1998 and liberalised near all tariff lines amongst its signatories. Secondly, the Agadir agreement (Egypt, Jordan, Morocco and Tunisia) which came into force in 2007, created an FTA amongst its signatories. Where changes in preference stimulate trade and cause the familiar trade creation and trade diversion forces, the Agadir agreement did not see any major changes in 2007 given that all its signatories were already party to the PAFTA agreement. Hence the shallow integration effects of this agreement are hard to capture and to disentangle from the shallow integration effects of the PAFTA agreement. The purpose of this section is then to see what the potential impact of extending preferences to all MED countries would be. This is accomplished by looking at similarity in trading structures across bilateral partners and assessing the scope for inter and intra industry specialisation.

### Aggregate Effects

To investigate the potential impact of increased integration amongst MED countries we first consider the degree of protection in these countries. Table 1 showed a fairly heterogeneous composition of MED country tariffs where these were highest in Algeria, Egypt, Mauritania, Morocco and Tunisia. This, a priori implies that there is potential for strong effects from preferential liberalisation. However, MED countries trade very little with each other (Table 8) and hence that with present trade flows the liberalization would only affect only a very small proportion of trade.

**Table 8. Intra-Mediterranean Trade in 2007**

	Albania	Algeria	Egypt	Israel	Jordan	Lebanon	Libya	Mauritania	Morocco	Palestine Territory	Syria	Tunisia	Turkey	Intra-Med
<b>Exports</b>														
Albania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
Algeria	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1	3.4	5.4
Egypt	0.1	0.4		0.1	1.9	2.0	1.5	0.2	1.0	0.3	1.3	0.8	2.7	12.3
Israel	0.0	0.0	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.0
Jordan	0.0	2.0	1.4	2.7	0.0	2.2	0.6	0.0	0.2	0.9	4.7	0.3	0.4	15.3
Lebanon	0.2	0.5	4.6	0.0	3.5	0.0	0.1	0.1	0.6	0.0	8.6	0.5	4.6	23.4
Libya														
Mauritania	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

	Albania	Algeria	Egypt	Israel	Jordan	Lebanon	Libya	Mauritania	Morocco	Palestine Territory	Syria	Tunisia	Turkey	Intra-Med
Morocco	0.0	0.5	0.3	0.0	0.2	0.2	0.3	0.3	0.0	0.0	0.3	0.6	0.9	3.5
Palestine Territory	0.0	0.3	0.2	84.7	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	92.0
Syria	0.0	2.5	3.8	0.0	4.6	3.2	1.7	0.1	1.9	0.0	0.0	0.8	5.2	23.8
Tunisia	0.0	1.9	0.6	0.0	0.0	0.0	4.6	0.1	1.1	0.0	0.0	0.0	1.2	9.6
Turkey	0.3	1.2	0.8	1.6	0.4	0.4	0.6	0.0	0.7	0.0	0.7	0.5	0.0	7.1
<b>MED</b>	0.1	0.7	0.8	0.8	0.5	0.3	0.6	0.1	0.7	0.0	0.5	0.3	1.6	6.9
<b>IMPORTS</b>														
Albania	0.0	0.1	0.6	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	7.3	8.4
Algeria	0.0	0.0	0.9	0.0	0.4	0.1	0.0	0.0	0.2	0.0	0.1	0.8	3.3	5.8
Egypt	0.0	1.4		0.0	0.2	0.4	0.7	0.1	0.1	0.0	0.5	0.1	1.7	5.3
Israel	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	3.1
Jordan	0.0	0.0	4.4	1.1	0.0	0.8	0.0	0.0	0.2	0.2	2.7	0.0	2.9	12.3
Lebanon	0.0	0.1	5.5	0.0	0.8	0.0	0.4	0.0	0.4	0.0	2.2	0.1	4.0	13.5
Libya														
Mauritania	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.6	0.4	3.4
Morocco	0.0	2.5	1.1	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.1	0.6	2.7	7.4
Palestine Territory	0.0	0.0	0.9	73.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	78.4
Syria	0.0	0.6	4.4	0.0	1.0	1.2	0.8	0.0	0.2	0.0	0.0	0.1	3.9	12.2
Tunisia	0.0	1.6	1.1	0.0	0.1	0.1	3.4	0.0	0.4	0.0	0.3	0.0	2.6	9.5
Turkey	0.0	1.2	0.4	0.6	0.0	0.1	0.2	0.0	0.1	0.0	0.2	0.1	0.0	3.1
<b>MED</b>	0.0	0.9	1.0	1.0	0.1	0.1	0.4	0.0	0.1	0.0	0.3	0.2	1.6	5.8

Source: Own calculations, Comtrade.

**Table 9. Potential for Trade Diversion in S-S agreements (2006)**

Trade similarity indicator	
MAR	0.127
ALB	0.209
DZA	0.259
EGY	0.275
ISR	0.192
JOR	0.171
LBN	0.253
LBY	0.174
MRT	0.125
PSE	0.087
SYR	0.299
TUN	0.244
TUR	0.158

Source: Own calculations, Comtrade.

Trade diversion from further trade integration between MED partners is likely to be small. This conclusion is reached by comparing MED country importing structures from other MED countries to that of all other non-preferential partners. To do so we constructed a similarity indicator, like the one we constructed in the previous section. In Table 9 we present the similarity indicators; these are small across the countries in the Mediterranean region, suggesting little scope for trade diversion from integration.

To investigate the potential benefit from 1 integration between MED countries we compared country's exporting structures with the importing structures of the partners of the regional integration initiative. The more similar these structures are the more scope there is for trade creation as regional supply can potentially respond to regional demand. Appendix 1 reports on the technical details of this exercise (Section 5.2 and especially table 25). The results for the year 2006 suggest little evidence that MED countries supply structures are well suited to other MED countries demand structures, suggesting that the potential for strong effects from S-S integration is likely to be modest.

Another way of estimating the potential for trade creation is to compare exporting structures across countries, as a proxy for comparing production structures for which the data are difficult to obtain. The purpose of this analysis is to find out to what degree the trade structure of the countries in the region are similar and thus provide potential for intra-industry trade. This line of research is driven by the global experience suggesting the gains from specialising at the intra industry level are likely to outweigh the gains from specialising at the inter industry level. This would come in addition to the gains from trade derived from comparative advantages that themselves are rooted in factor endowment differences that affect whole swathes of the economy. Intra-industry trade requires highly specialised machinery and a specialized work force. Under this type of trade, countries will specialise in varieties of similar products and then trade with each other. A prime example of this type of trade is Germany exporting Volkswagen cars to France which exports Peugeots to Germany. Similarly Japan exports high tech digital electronics products and components to China and imports finished and lower tech products. Intra-Industry trade may involve chopping up the production process so each component is sourced in a different place and assembly takes place in another one. This specialised intra-industry trade has the most significant element in recent globalisation and has characterized much of the integration among the EU15 and the new members and among Asian economies.

The main findings of the appendix suggest that MED countries exporting structures are bilaterally significantly different from each other which suggest that the



scope for intra-industry based trade creation is at present rather low.<sup>17</sup> It is striking that IIT with the rest of the world is higher than with the EU. .

However, an analysis of the evolution of export structures in the last decade suggests that MED countries are becoming increasingly similar. This, in turn, suggests that even if there is little current scope for IIT based trade creation there is growing scope over time for MED countries to trade with each other on a more intra-industry based level.

### **General Conclusion from Potential Impact of S-S Integration**

All indicators used in the above analysis suggest that currently the potential effects of S-S integration are low. Yet, there appears to be an underlying trend in the direction of creating more scope for S-S specialisation which could be boosted by further integration in the region. Even though trade between the MED economies is very low, it is exhibiting positive growth.

The MED region imports significantly different products from the region than from the rest of the world which suggest that there is also little scope for trade diversion.

Where there is a possibility of 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 efficient as it removes previous trade diversion created from other preferential agreements.

Looking at how similar MED partner *exporting* structures are to other MED partner *importing* structures to assess how well the countries could supply one another other, we see that similarity is very low. This suggests that these partners are not each other's natural trading partners and hence that any of the S-S agreements are likely to have limited trade effects. Even though the Agadir agreement entered into force in 2007, the change in preferences in this year is very small given that all Agadir countries are also party to PAFTA which came into force in 1998 and grants duty free access to all its signatories. This suggests that the effects of Agadir will not be easily disentangled from the effects of PAFTA.

The MED partner's exporting structures are becoming increasingly similar, even though they continue to be highly dissimilar. This is a necessary if not a sufficient condition for the emergence of niche specialisation or intra-industry trade.

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<sup>17</sup> The appendix includes a long discussion of the methodology and of the different country pair complementarities. Readers are invited to refer to the appendix tables for a bilateral breakdown of the scope for trade creation.

### **3.5. Sectoral Issues**

#### **Tariff by Categories**

An analysis of the tariff structure across the MED5 countries will assist in determining the degree of current distortions and 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.

Appendix 1 Table 4 considers simple average tariffs of MED5 countries by Broad Economic Categories (BEC) and counts the amount of tariff peaks in each category<sup>18</sup>. 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.

Appendix 1 Table 5 shows MED5 country tariff structure by SITC categories for the latest available year<sup>19</sup>. 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 effects from any form of 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<sup>20</sup>. 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 effects from an agreement should also be low. Protection structures in Jordan, apart from the ‘beverage sector’, are highest in the ‘commodities n.e.s.’ 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

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<sup>18</sup> Tariff peaks are defined as three times the average tariff of the category.

<sup>19</sup> 10 separate SITC categories are identified from over 3000 products.

<sup>20</sup> The high tariff seen in the ‘beverage and tobacco’ sector is not uncommon for a Muslim country where alcoholic beverages are highly taxed.

the ‘Chemical’ sectors. In turn, the EU has relatively low tariffs in most categories where they are highest in ‘Food and Live animals’.

### **Decomposition of trade by Sector**

The analysis of the trade structure between the EU and the Med partners suggests that except for Israel and Morocco in 2006 the share of manufactures is low while the shares of food and raw materials of various kinds are most significant. (Appendix 1 Tables 10 and 12). The pattern of MED trade with the EU is similar to their trade with the RoW suggesting that preferences have supported the exploitation of comparative advantage.

Appendix 1 Tables 14–24 contains more detailed analysis by product. We find that among manufactures textiles and clothing remain extremely important. The motor industry has become more significant in total MED trade but this is essentially a Turkish phenomenon. As tables 20–21 in the Appendix 1 show the share of agriculture in the MED partner exports to the EU is relatively small and falling (due to non-agricultural exports rising faster not due to an absolute fall). It is notable however that the share to the EU is still higher than to the RoW and not falling faster. This suggests that even though agriculture has not been fully integrated into the trade agreements, market access into the EU is not abnormally obstructed. This does not mean that there are no areas for improvement however. Some evidence from our earlier work (FEMISE) shows evidence of individual products from the region being affected by e.g. EU SPS measures. The simple existence of SPS measures indicates that a health concerns exist and not necessarily that protectionism is in play. If we look at the number of food safety alerts identified in imports by country in 2007 we find that while Turkey (293) rates second after China (352) and ahead of the US (191), the MED 5 countries had rather few ranging from 5 in Israel to 35 in Egypt all well below Brazil (58) Argentina (48) and Vietnam (45).<sup>21</sup> Nevertheless in earlier work<sup>22</sup> we have identified a number of instances where sharp falls in exports followed EU SPS measures, oranges from Egypt affected by EU SPS and Morocco fish products in addition to the perennial Egyptian potato and Brown Rot case.

We have not been able in this chapter to explore the causes of trade developments in agricultural goods, but observe that they cannot be addressed by trade

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<sup>21</sup> Rapid Alert System for Food and Feed (RASFF) Annual Report 2007, p60.

<sup>22</sup> Ghoneim, A, Holmes P., Lopez Gonzalez J. et al (2008) “Examining the Deep Integration Aspects of the EU-South Mediterranean Countries: Comparing the Barcelona Process and Neighbourhood Policy, the Case of Egypt” FEMISE Project No. FEM31-08.

measures alone. Partner countries need to be able to create confidence in their SPS standards that the EU can trust. This is costly however and involves complex trade-offs, as noted in Section 4.

In addition the Appendix 1 table 21 identifies a number of products where, unlike the overall figure export shares to the EU are below those for exports to the RoW. This may or may not be due to market access impediments in the EU market. The table identifies three main categories of agricultural produce where the EU share of exports are lower for all MED partners than the share going to RoW; they are concentrated in ovine products, citrus fruits and fish.

In more detail the products concerned are:

- Morocco citrus fruits and fish show evidence of reduced market access.
- Egypt rice and oranges
- Israel processed citrus fruit juices.
- Jordan tomatoes, tobacco and vegetables

Appendix 1 Tables 34 to 43 also looks in detail at another aspect of trade structures. We rank MED5 top exports to the world and compare trade shares across destinations (EU and RoW) whilst looking at revealed market access indicators to try to assess if there are any *prima facie* market access impediments in the EU market when compared to market access in the rest of the world. Here we find that although the broad patterns of trade flows are similar across partners, there are some significant anomalies. For example Egypt's very strong "revealed comparative advantage" in the world orange market does not show up as strongly as one might have expected in the EU raising the possibility of the existence of trade barriers. Jordan on the other hand appears to trade "disproportionately" with the US (perhaps because of its FTA.).

We do not discuss these observations in detail here since being a purely data driven exercise they are more of a hint where more business focussed research might care to look than evidence of barriers as such.<sup>23</sup>

### **3.6. Investment**

Whilst trade data is plentiful and the analyst risks being lost because every tree and every twig of the forest shows up in data, FDI data is much harder to find. Appendix 1 surveys what we have been able to discover.

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<sup>23</sup> NB See Appendix Tables A.11 onwards for an attempt to identify product classes where market access to the rest of the world appears to be better than into the EU.

The headline conclusions as far as the overall levels of flows are concerned is that apart from Israel, the EU is a major foreign investor in the region (in terms of number of projects it undertakes 48% of all recorded FDI projects ANIMA (2008)) and that if we look at the share of FDI going to the region compared to the partners' share of world we find that with the exception of Israel for the countries we can track, the share of EU FDI going to these countries is greater than we would expect on the basis of their share of GDP. The following table shows the ratio of the percent of EU FDI going to each partner divided by the partners' shares of global GDP.

**Table 10. EU FDI in MED countries 2001-2007 adjusted for GDP**

	2001	2002	2003	2004	2005	2006	2007	Average INV2
<b>Flows</b>								
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
<b>Stocks</b>								
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.

**Table 11. 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.

The differences can be accounted for by the Gulf States' willingness to invest in Egypt, Morocco, Jordan & Tunisia and US investment in Israel.

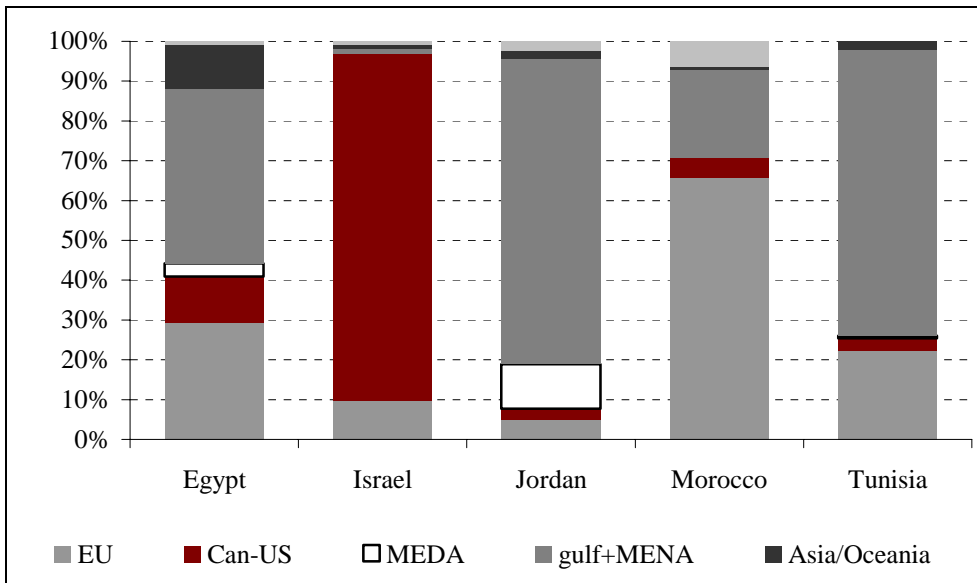
We also tried to analyse the inflows by sector (but not but source due to lack of data) for Egypt, Tunisia and Morocco. See tables A.9 to A.11 in the appendix 1. The results were not deeply illuminating. Morocco and Egypt both had relatively low shares of FDI flows into the primary sector and whilst Egypt had a balance between manufacturing and services, FDI into Morocco was more concentrated on services (with wide annual fluctuations). Tunisia saw a concentration in the pri-

mary sector. These were flow data and one would have expected a closer relationship between FDI and natural resource endowments.

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 chemical sector seems to be the largest recipient even though it has a low RCA which is consistent with market seeking behaviour. Earlier work suggests that most FDI into Egypt was for petroleum though this varies from year to year, and also that for manufacturing the home market was the main one.<sup>24</sup> Nothing in our data suggests otherwise.

The origin of FDI differs greatly from country to country and reflects cultural and other ties between the recipient country and the country where FDI originates (Figure 2). EU investment represents 65 percent of total FDI in Morocco, as compared to only 5 percent in Jordan. Investments originating in the Gulf countries and MENA dominate FDI in both Tunisia and Jordan. FDI from the US –Canada dominate in Israel with a share of 87 percent.

**Figure 2. FDI inflows into MED5 by origin 2003-2007**



Source: ANIMA (2008), own calculations.

Sectoral FDI data are especially difficult to assemble. Appendix1 Table 49 shows that the main recipients of FDI in the region have been construction and

<sup>24</sup> See Estrin (2003) Hadoussa (2004).

public works (French BTP”), transport, construction and associated services, energy, banks, insurance and other financial services, and glass cement, minerals, wood and paper. With the important exception of energy these are not export related and we can infer that for the region inward FDI has not been significantly for export platform purposes. This is a further indication of the limited degree of deep integration in the EU-Med region.

The business climate certainly impacts on the way investors look at the business opportunities in a country and thus to invest. The World Bank has for six successive years now undertaken a Survey that ranks countries with respect to their business climate and the reforms that are undertaken to improve this climate.<sup>25</sup> The 2009 publication ranked 181 countries using similar indicators. These data have been reviewed in most of the countries surveyed by the business community as well as governments. Many of these reviews have resulted in renewed efforts to tackle systematically the registered weaknesses so as to improve the climate for private business and to attract more domestic as well as foreign investment. Table 12 gives the latest data for the MED countries that have Association Agreements with the EU and for Syria and Turkey. An inspection of this table suggests that the score of the countries in the Mediterranean region is rather low on the overall score and on the scores pertaining to (i) dealing with construction permits, (ii) protection of investment and (iii) enforcement of contracts, three areas that are extremely important for potential investors. The Doing Business 2009 also reports on the ten countries in each of its scoring categories that have initiated reforms; none of the MED countries appear in any of these top rankings. Despite these low scores the MED countries do attract significant amounts on investment as indicated in the tables. Initiatives to improve on these scores would appear to be the first policy action to attract more FDI. Other measures could be implemented to advertise investment possibilities and support to potential investors. Yet it would appear that improving the overall investment and business climate should receive the highest priority. The EU could support such an action plan that would need to be grounded in the strong desire of the administration to do so and on the active input of the business community.

Enterprise Surveys complement the Doing Business indicators with different diagnostic tools. They differ in their source of information, the type of information on the business environment, the frequency with which information is updated, and number of countries that are covered. The results are readily available on the web ([www.enterprisesurveys.org](http://www.enterprisesurveys.org)) and can be called up for individual countries and per-

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<sup>25</sup> Doing Business 2009 (2009), World Bank, Washington DC;

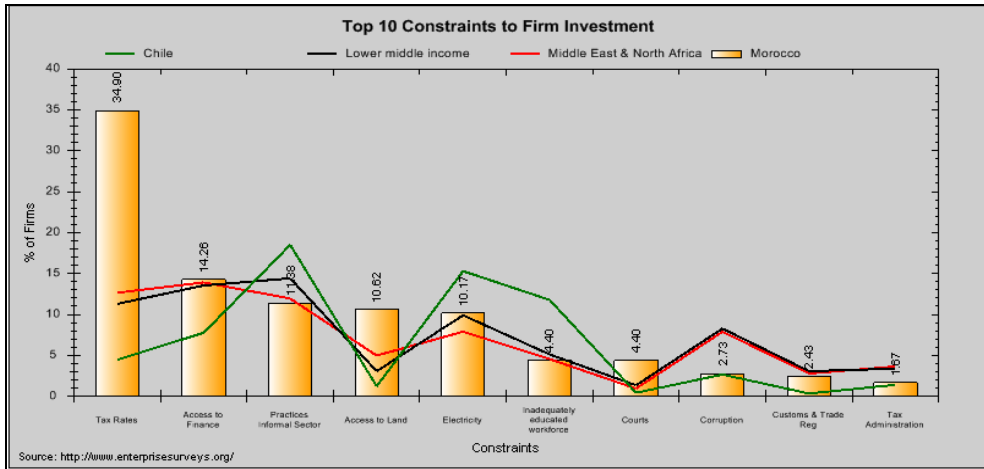
mit comparisons between countries and regions for each of the retained variables.<sup>26</sup> Figure 3 presents the data for Morocco to illustrate the data availability.

**Table 12. Doing Business scores for selected MED countries**

Country	Overall score	Dealing with construction permits	Protection of Investors	Enforcement of Contracts
Algeria	132	170	14	87
Egypt	136	85	126	101
Israel	30	120	5	102
Jordan	101	74	112	128
Lebanon	99	121	88	118
Morocco	128	90	164	112
Syria	137	132	113	174
Tunisia	73	101	142	74
Turkey	59	131	53	27

Source: Doing Business 2009, (2009) World Bank, Washington DC.

**Figure 3. Morocco. Investment Climate Data**



In addition the International Finance Corporation had prepared Investment Climate Assessments (ICA) or several countries amongst which are the following Mediterranean countries: Morocco, Lebanon and the Palestinian Authority. Even though the production of these ICAs has been replaced by the “enterprises surveys” initiative, the ICAs that have been produced contain valuable information and have at times been extensively disseminated in some countries, particularly Morocco.

<sup>26</sup> [www.enterprisesurveys.org](http://www.enterprisesurveys.org) and then click on “Doing your own analysis”.



## **4. Potential Trade Flows and an Early Assessment of the Impact of EU-MED Integration**

### **4.1. Introduction**

This section provides a review of selected studies analyzing potential trade flows between the EU and Euro-Med countries and reports on our own early estimates of the impact of the Euro-Med integration on trade flows. Several previous studies have looked as to whether Southern Mediterranean countries reached their potential trade volumes with the EU countries and amongst themselves. The results will suggest the scope for trade expansion under a program of deep integration through further reduction of tariff and non-tariff barriers.

The gravity model of trade comes from the application of the law of gravity from physics to trade. Bilateral trade between any two countries depends on their market sizes measured by GDP (the equivalent of mass) and distance between them. Due to their empirical robustness the gravity models have been extensively used to explain bilateral trade between countries and to estimate the impact of preferential trade agreements. Although early applications of gravity models have been criticized for the lack of theoretical foundations, later studies showed that with special assumptions a simpler version of the gravity model can be derived from the factor proportions model (Deardorff, 1988), or from increasing returns to scale and product differentiation models or a combination of both (Evenett and Keller (2002), Shelburne (2000)). Having estimated determinants of the actual trade, one can calculate potential trade, i.e. the trade that would have occurred under the 'normal' trading conditions (e.g. free trade). This estimate can be compared with the actual flows.

First we review the results of selected most recent empirical studies employing gravity model to trade of the Euro-Med region i.e. between the MED countries and between the MED countries and the EU. Differences in selection of countries and time periods under investigation as well as different estimation techniques along with the use of in- and out-of-sample calculations of potential trade flows might lead to different conclusions. However, the existing research seems to paint a coherent picture, namely that the Euro-Med countries seem to trade below their po-

tential with all or the majority of EU partners, while the potential for increase of intra-Med flows seems limited. Secondly, we present our own assessment of the impact of the EU-MED integration and intra-regional integration on the level of trade flows.

#### **4.2. Review of gravity models targeting the EU-MED and intra-regional trade**

This section reviews the following studies: Péridy (2005a and 2005b), Ferragina, Giovannetti and Pascore (2005), Nugent and Yousef (2005), Al-Atrash and Yousef (2000), Söderling (2005) and Ruiz and Vilarrubia (2007).

Péridy (2005a) aims at evaluating the intra-MENA trade flows for 5 MENA countries. He finds that the border effects (i.e. the costs of trade) for MENA countries in trade among themselves are higher than in their trade with other partners in particular South Asian or Central and South American, indicating that MENA countries are much less integrated with one another as compared to their integration with other countries, as it is less costly for them to trade with other countries than with one another. Maghreb countries experience slightly lower border effects than Mashreq countries in intra-regional trade. With respect to the MENA –EU trade Maghreb countries are found to have higher border effects as compared to intra-regional trade. For Mashreq countries the opposite is true (mainly due to the very low trade between Jordan and Egypt). His findings are based on the analysis of trade for 5 MENA countries and their 42 main imports partners, which account for more than 90 percent of MENA countries' trade over 1975-2001. The gravity equation includes income, distance, border effects (trade between countries as opposed to trade within countries<sup>27</sup>), regional economic agreements and language dummy in addition to the lack of trade complementarity index. The author employs several random effects models as well as a dynamic estimation.

Péridy (2005a) employs the dynamic estimates to calculate the potential trade between MENA countries. The results indicate that most intra-MENA countries trade flows are generally close to their potential levels (see Table 1 in the Appendix 3 for details). In particular Morocco seems to slightly overtrade with Tunisia,

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<sup>27</sup> The “border effects” dummy requires the calculation of internal trade flows and internal distance. Following Wei (1996) internal trade flows are calculated as a difference between country's production and its exports. Internal distance is calculated as in Head and Mayer (2002).

Egypt and Jordan and only exhibits a growth potential of exports to Algeria. Tunisia seems to still have a small potential for growth of exports to Algeria, Morocco, and Egypt, but not to Jordan. Egypt's exports are lower than predicted for all its MENA trading partners under investigation. Jordan's exports to Morocco are close to potential while their exports to Tunisia, Egypt and Algeria show a potential for a small growth. Given small amount of trade between MENA countries as compared to their trade with the EU, one would have expected a much higher trade potential within the MENA region. However, the main reasons behind limited potential growth of exports between the selected MENA countries are a low level of trade complementarity between their trade structures and low GDP levels in those countries.

These results are inconsistent with a previous study by Al-Atrash and Yousef (2000) studying the intra-Arab trade who concluded that intra-regional trade between the Arab countries was 10-15% below its potential level. The authors find that trade among Maghreb and the GCC states as well as their trade with other partners was less than predicted by their gravity model, while the trade among Mashreq countries and their trade with the outside world was much higher than predicted. However, the sample used by Al-Atrash and Yousef (2000) comprising of 18 Arab countries and 43 countries covered only a three year period of 1995-97, hence its results might be biased.

In a follow up study Péridy (2005b) applies a similar methodology to study trade between the EU and countries covered by the European Neighbourhood Policy. His data sample covers 65 EU partners as exporters covering 95% of EU imports for 1993-2003. The out-of-sample<sup>28</sup> estimates of potential trade flows indicate that all of our focus countries (MED5) except for Israel show strong potential export growth to the EU (see Table 1 in the Appendix 3 for details). Based on the levels of trade typical for intra-EU 15 Jordan's actual exports to the EU account for about a half of their potential level, Egypt's exports constitute about 70% of their potential value as predicted by the model. The smallest growth potential is expected in the case of Morocco and Tunisia. When the estimates of trade potential are based on the equation depicting "normal" (as predicted by the gravity model) trade relations between the EU and non-EU partners, the estimated trade potential is slightly lower in this case. Finally, the author produces in-sample predictions of export potential i.e. potential trade flows based on trade relations between all countries in the sample, including intra-EU trade and trade with the MED countries. In this case Morocco, Tunisia and Israel seem to over-export to the EU, while Egypt and Jordan show significant export potential to the EU.

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<sup>28</sup> The "out of sample" estimates are based on the regression run on the data set excluding the ENP countries.

Hence, based on “normal” trading relations between the EU and all its trading partners, Morocco, Tunisia and Israel do better than expected. However, the estimates based on trade levels typical for the EU15 show that there is a significant potential for the expansion of trade between MED and the EU under a program of deeper integration bringing the tariff and non-tariff barriers to trade closer to those typical for the intra-EU trade.

Ferragina, Giovannetti and Pascore (2005) reach similar conclusions regarding the trade potential between the EU and selected Euro-Med countries<sup>29</sup>. Their study combines panel data gravity estimates of intra-EU15 trade with an out-of-sample calculation of the EU-o-Med trade. The period under investigation is 1995-2002. The authors estimate the potential exports between selected EU (Italy, Germany, France, UK and Spain) and Mediterranean countries and conclude that over the period of 1995-2002 the difference between actual and potential exports between those selected groups of countries has been increasing. Looking at the MED5, the results indicate that exports and imports of Egypt, Israel, Morocco and Tunisia to Italy, Germany, Spain and the UK are about 3.5-4 times smaller than their potential value as predicted by the intra-EU15 trade model. This suggests that if ever the integration of these countries with the EU was to reach the same level as intra-EU15 integration over this period, their trade with the EU could quadruple. At the predicted trade growth rate consistent with the WB forecasted GDP growth it would take the Mediterranean countries up to 40 years to reach their potential trade levels as observed in the intra-EU15 trade flows (see Table 1 in Appendix 3 for details).

Nugent and Yousef (2005) study the potential effects of two agreements: the Euro-Med FTA agreements and an FTA among the MENA countries, independently and jointly and conclude that MENA countries were underachievers in international trade in 1992. The authors employ a rather old data set including each pair of countries in the world trade over 1970-1992. They modified the basic gravity model to take account of natural resources endowments and found that trade diversion from existing FTAs reduces the predicted trade potential substantially. In particular in 1992 intra-MENA trade was 33% and EU-MENA trade was 27% below its potential value. Based on 1992 trade flows an EU-Med FTA could more than triple the trade flows between MENA and the EU, while intra-MENA FTA could more than double the intra-MENA trade flows. Estimating the impact of both regional and EU integration jointly does not seem to contribute much to the potential increase in trade flows as compared to the impact of the two FTAs separately.

Söderling (2005) focuses on the export potential of MENA countries to the EU, and suggests that actual exports of the majority of the Mediterranean countries to

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<sup>29</sup> These are Algeria, Cyprus, Egypt, Jordan, Israel, Lebanon, Malta, Morocco, Syria, Tunisia and Turkey.

the EU surpass their potential levels. The analysis is based on trade flows of 90 countries covering about 90% of world trade. This study focuses on six MENA countries: Algeria, Egypt, Jordan, Morocco, Syria and Tunisia. The predicted trade flows are based on out-of-sample estimates (i.e. based on a sample not including MENA countries) and on panel data with country-pair specific effects. The in-sample estimates of potential trade flows represent the level of trade that would prevail if the country-pair specific effects had been equal to the global average. The results indicate that most Mediterranean countries' exports exceed the model predictions i.e. given their income, distance from the EU and other characteristics their exports to the EU are higher than would have been typical on average for all countries in the sample. Only Jordan and Morocco show small export potential in this specification. The US seems a major untapped market for Jordan, Morocco, Syria and Tunisia, while Algeria and Egypt seem to over-export to the US. Looking at the bilateral trade flows by countries (see Figure 1 in Appendix 3), it seems that Egypt and Jordan and Morocco could potentially increase their exports to Belgium, UK, Germany and France. On the other hand Tunisia seems to over-export to those countries. Although France is the largest trading partner of Morocco in textiles, it is also the largest unexploited export market. This is due to the fact that Morocco's textiles exports to France are still lower than Tunisia's despite the fact that Tunisia is a much smaller country in economic terms.

Finally, a recent study by Ruiz and Vilarrubia (2007) finds that previous studies, which did not properly take into account the overall multilateral trade resistance, have tended to overestimate the trade potentials for the region. The authors employ country-year fixed effects in the estimation to solve the problem of a potential bias stemming from omitted variables. However, this makes the comparison of actual and potential trade flows impossible as the equation explains perfectly the export flows in any given year and actual and potential trade flows become identical. Their approach however allows for the in-sample prediction of potential trade shares (not levels) and therefore of likely direction of exports growth. The study employs data for top 100 exporters in 2004 including Euro-Med countries over the period of 1976-2005. The results of their analysis of trade export share potentials vis-à-vis the EU, the US and other Euro-Med (details in Table 1 in the Appendix 3) suggest that Algeria, Jordan and Lebanon's shares of exports to the EU as a whole are below the predictions of the empirical model. For the other countries such as Morocco, Tunisia and Israel the share of export to the EU in the last 5 years under investigation has been very close to the potential as predicted by the model. Hence the growth of exports of those countries in the future might come from selected individual EU countries or other export destinations. In terms of trade with other Euro-Med partners, only Israel shows a clear potential for further expansion of exports to the region. Looking at individual Euro-Med countries

the highest potential for the rise of Egypt's and Jordan's exports is to be found in France, Germany, US, Israel and the UK. On the other hand Tunisia over-exports to France, Germany and Italy. These last results are consistent with Söderling's (2005) estimates. On the other hand the results for Morocco show some inconsistency, with Ruiz and Vilarrubia (2007) indicating that it is over-exporting to France, while the opposite was the case in Söderling's (2005) study.

Overall, most recent studies here reviewed suggest that MED5 exports to the EU are close to their potential levels as defined by average trading relations between countries with their levels of income and distance between them. It seems that without a deeper integration with the EU, countries such as Israel, Morocco and Tunisia could expect to increase their exports only to selected EU countries, as their exports to the EU15 seem quite close to predictions of the gravity model. On the other hand Jordan's and Egypt's exports to the EU are below their potential levels. However in the scenario in which the Euro-Med integration reaches the levels typical for the EU15 several studies (Péridy (2005b), Ferragina, Giovannetti and Pascore (2005), Nugent and Yousef (2005)) suggest that MED exports and imports to the EU could triple or quadruple.

Looking at intra-regional trade these studies conclude that due to low complementarity of intra-MED trade and low GDP levels, it seems that according to normal trade relations, as suggested by gravity models, potential for an increase in intra-regional trade is rather limited. In many instances the predicted intra-Euro-Med trade levels are below potential, but not far away from it. Out of the MED5 mainly Egypt, Tunisia and Jordan show the highest potential for growth of trade within the region. Nugent and Yousef (2005) suggest more buoyant trade possibilities for intra-MED FTA which they suggest could triple. Yet, even if the tariff and non-tariff barriers could be reduced dramatically, at the current predicted levels of GDP growth it would take up to 40 years for the MED5 to reach their potential trade levels with the EU.

### **4.3. The role of the Euro-MED and intra-MED integration in increasing trade levels**

#### **4.3.1. Previous studies**

There are several reasons why the results of the EU-MED integration might seem disappointing and why trade levels have been below their potential. The EU-Mediterranean trade preferences are rather low given the preferences granted by the EU to other regions, as suggested earlier in this study and the integration with

the EU has been limited to manufacturing products and progressing at an uneven pace. Also, a major obstacle to further trade expansion are non-tariff barriers as documented in detail in the chapter 4 and as further confirmed by the results of the business survey in the chapter 5. It has also been argued that the quality of institutions limits MENA countries integration into the global economy (Meon and Sekkat, 2004), while the absence of effective regional institutions is a major impediment to the expansion of intra-regional trade (Kheir el Din and Ghoneim, 2005). Longo and Sekkat (2004) find out that besides traditional gravity variables, poor infrastructure, economic policy mismanagement and internal political tensions have a negative impact on intra-African trade (including African-Arab countries). Several studies also point out that the gains from reducing these obstacles to trade will be highest where the trade potential is the greatest. Dennis (2006) concludes that the potential gains from lowering trade costs in MENA countries associated with their trade with the EU are much greater than the gains from the elimination of costs associated with their trade with each other<sup>30</sup>.

To our best knowledge there are very few studies comprising the ex-post evaluations of the intra-Arab trade tariff reductions and the impact of the Euro-Med integration. A recent study by Abedini and Péridy (2008) attempts to evaluate the impact of PAFTA on trade applying a gravity model with additional variables such as expectations and sunk costs. The authors conclude that the regional economic integration through PAFTA has increased intra-regional trade. The authors estimate that over the period of 1997-2005 PAFTA has increased the intra-regional Arab trade by between 16%-24%. Hoekman and Sekkat (2009) claim, that this study is subject to attribution/identification problem as PAFTA was only implemented gradually after 1998, with full implementation only in 2005. Establishing causality in this case is very difficult and further research is needed to confirm these results.

In the case of the Euro-Med integration some early assessment is provided in several of the studies reviewed in the previous section. For example Péridy (2005b) finds the impact of the Euro-Med agreements to be weakly statistically significant (only at 10% level) and the result is not robust as it becomes statistically insignificant in some econometric specifications. Similarly, in Abedini and Péridy (2008) the impact of the Euro-Med integration on trade is found to be statistically significant, but much weaker than the impact of PAFTA, Mercosur or NAFTA. Finally, Ruiz and Vilarrubia (2007) do not find any evidence that the Euro-Med agreements have increased trade volumes between countries that have signed them. However, they find slightly statistically significant evidence of exports originating in the Euro-Med countries increasing as a result of signing the

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<sup>30</sup> For a comprehensive review of the recent studies on Arab trade, migration and capital flows see Hoekman and Sekkat (2009).

agreement. However, all of the above studies provided a very early assessment of the Euro-Med integration process. Many agreements have been ratified quite recently and the most current data is needed to make a valid judgment about their contribution to trade creation and/or trade diversion.

#### **4.3.2. Own findings**

Below we present our assessment of the impact of Euro-Med integration, PAFTA and Agadir FTAs on trade flows of the MED. We modified somewhat the methodology adopted by Ruiz and Vilarrubia (2007). First, we apply it to a 1970-2008 data for the 100 countries with largest exports in 2004. 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 with the EU differs between the MED countries. Thirdly, we 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). The details of the data sources, methodology and full set of results are included in the Appendix 3.

The estimated equation includes the standard gravity variables such as GDPs of exporter and importer. Several other bilateral variables such as distance between exporter and importer, common border, common language, and common colonizer etc. are captured by the pair-wise dummies. In case of the Euro-MED, PAFTA and Agadir FTAs we took into account the possibility of trade creation inside the FTA, trade diversion from outside the FTA and possible trade creation outside of the FTA. As noted in the Section 3 a newly created FTA can lead to expansion of trade between its members, while the increase in trade could also come at the expense of trade with countries outside of the FTA. Finally, it is possible that by lowering the external tariffs an FTA could lead to a creation of trade with non-members of the FTA. To account for these three factors we include three types of dummy variables in the equations. 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.

We first estimate the gravity equation for all countries involved in the Euro-Med integration as an aggregate i.e. regression 1 for which the coefficients are given in column 2 of the Table 13 together with the degree of statistical significance of these regression coefficients. Similarly to the results of Ruiz and Vilar-



rubia (2007) we find no support for the hypothesis that the Euro-Med FTA has contributed to the increase of trade between the parties involved. The coefficient of a dummy variable denoting the members of the Euro-MED FTA is close to null (-0.005) and is not statistically significant. However, the regression results for trade when only one country is a member of the Euro-MED FTA yields positive and statistically significant coefficients (0.34 and 0.11). These results suggest that a membership of the Euro-Med FTA increases exports and imports with non-members by respectively 41% and 11%<sup>31</sup> relative to what would otherwise be predicted given the countries' incomes and other characteristics.

In agreement with previous studies, our results indicate that PAFTA had a positive impact on trade between its members (the coefficient of 0.76) and on imports from non-member countries (the coefficient of 0.084). However, the results suggest that exports of PAFTA members to non-members could have been higher in the absence of the FTA, as the coefficient on exports to non-members is negative and statistically significant (-0.084). In addition, we find no evidence that the Agadir agreement contributed to the growth of trade between its signatories (the coefficient of the variable denoting membership of the Agadir is not statistically significant), but it contributed to the growth of exports of Agadir countries to non-members (the coefficient of 0.42). These results, however, need to be treated with caution as we have only a few years in the sample since the Agadir agreement has been implemented (2006) and it might be simply too early to see its effects on trade.

Further, looking at the individual countries (column 3 of Table 13), our results indicate that the FTAs with the EU have increased trade with the EU only in the case of Egypt and Tunisia (positive and statistically significant regression coefficients of 0.74 and 0.28 respectively), while they led to a fall of trade with Lebanon and Algeria (the coefficients are -0.5 and -0.3 respectively and statistically significant). In the cases of Morocco, Jordan and Israel we cannot detect any statistically significant impact of the Euro-Med agreements on trade with the EU. Again, it might be simply too early to detect any impact of the EU-Med FTAs on trade, as both Lebanon and Algeria implemented the FTAs very recently (in 2006 and 2005 respectively). We find no evidence of trade diversion, as the signature of the FTA with the EU had a positive impact on exports to non-EU partners in the case of Egypt, Morocco, Jordan, Tunisia and Algeria (the coefficients on exports to non-members are positive and statistically significant). Further, our results indicate that the FTA with the EU has affected Tunisian imports from non-EU partners negatively indicating a decline of trade of 9.4% (the coefficient of -0.1). As expected, the results for Agadir and PAFTA are similar as in the aggregate specification with almost no change in the regression coefficients.

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<sup>31</sup> The coefficient on exports is 0.342, hence the impact on trade is equal to  $e^{0.342}-1=41\%$ .

**Table 13. Estimates of the gravity equation with country-pair dummies and the aggregate of the Euro-Med partners and individual MED countries**

	Regression for a group of countries	Regression for individual countries
Exporter's GDP	0.555***	0.556***
Importers GDP	0.693***	0.694***
Both countries members of the EEC/EU	0.296***	0.296***
Both countries members of the Euro-Med agreements	-0.005	
Only importer member of the Euro-Med agreements	0.110***	
Only exporter member of the Euro-Med agreements	0.342***	
Both countries members of Egypt-EU FTA		0.747***
Both countries members of Morocco-EU FTA		-0.172
Both countries members of Jordan-EU FTA		0.108
Both countries members of Israel-EU FTA		0.139
Both countries members of Tunisia-EU FTA		0.282**
Both countries members of Lebanon-EU FTA		-0.503***
Both countries members of Algeria-EU FTA		-0.306**
Imports of Egypt from non-EU partners		0.578***
Imports of Morocco from non-EU partners		0.071
Imports of Jordan from non-EU partners		0.099
Imports of Israel from non-EU partners		0.213***
Imports of Tunisia from non-EU partners		-0.099*
Imports of Lebanon from non-EU partners		-0.168
Imports of Algeria from non-EU partners		0.305***
Exports of Egypt to non-EU partners		1.048***
Exports of Morocco to non-EU partners		0.171***
Exports of Jordan to non-EU partners		0.372***
Exports of Israel to non-EU partners		0.461
Exports of Tunisia to non-EU partners		0.278***
Exports of Lebanon to non-EU partners		0.131
Exports of Algeria to non-EU partners		0.175**
Both countries members of the Agadir agreement	-0.035	-0.263
Exports of Agadir countries to non-members	0.420***	0.280***
Imports of Agadir countries from non-members	0.079	0.022
Both countries members of the PAFTA agreement	0.759***	0.766***
Exports of PAFTA countries to non-members	-0.084***	-0.092***
Imports of PAFTA countries from non-members	0.084***	0.088***
Both countries members of EURO Area	0.049	0.048
Constant	-2.538***	-2.539***
Sample	1970-2008	1970-2008
Number of observations	229946	229946
R-squared	0.477	0.478

*Note.* Also included dummies for other FTAs: US-Israel, US-Chile, NAFTA, CARICOM, MERCOSOUR, EFTA, CAN, CACM, CER, AFTA. Dependent variable: log of bilateral exports. \* - significant at 10%, \*\* - significant at 5%, \*\*\* - significant at 1%.

### **4.3.3. Concluding remarks**

Our early assessment of the impact of the Euro-MED FTAs on trade indicates that it has not contributed to the expansion of trade between all its members. However, when looking at the individual MED countries we find that in the cases of Egypt and Tunisia the FTAs with the EU have led to higher trade flows. We find no evidence of any impact of the FTAs on trade of Morocco, Jordan and Israel with the EU. Our results indicate a fall in trade with the EU in the case of Lebanon and Algeria. However, these are the two most recent FTAs, as they came into force in 2006 and 2005 respectively (see table 1), hence it might be too early to see any impact of the FTAs on trade flows. Our results indicate that in the case of all MED countries except for Tunisia, the FTAs with the EU have led to the expansion of exports to and imports from the non-member countries.

We also find a positive impact of PAFTA on trade flows between its members and on imports from non-members. It seems that PAFTA had a slight trade-diversion impact on exports to non-member countries. We find no evidence of additional benefits of Agadir agreement on trade between its members so far.

The gravity analysis allows us to detect the impact of the FTAs on trade using state of the art econometric methods based on a rich data base. However, further analysis is needed to find out the reasons why the FTA with the EU contributed to the growth of trade of some countries, while it had null or negative impact on the trade of other countries. Several reasons have been mentioned in this section and in other chapters of this report. Among these are relatively low levels of preferences on the EU market granted by the FTA in light of previous tariff reductions and the fact that the EU has preferential agreements with many other trade partners. Also we noted the high remaining levels of NTBs and weak regional institutions, along with the fact that the integration process took place at the uneven pace and covered only selected sectors. As the review of previous studies indicates the potential for growth of trade with the EU and to a lesser extent within the region is significant with the removal of non-tariff barriers, improvements in institutions and infrastructure likely to bring the highest benefits in terms of trade growth.

Finally, most recent studies here reviewed suggest that MED5 exports to the EU are close to their potential levels as defined by average trading relations between countries with their levels of income and distance between them. It seems that without a deeper integration with the EU, countries such as Israel, Morocco and Tunisia could expect to increase their exports only to selected EU countries, as their exports to the EU15 seem quite close to predictions of the gravity model. On the other hand Jordan's and Egypt's exports to the EU are below their potential levels. However in the scenario in which the Euro-Med integration reaches the

levels typical for the EU15 several studies (Péridy (2005b), Ferragina, Giovannetti and Pascore (2005), Nugent and Yousef (2005)) suggest that MED exports and imports to the EU could triple or quadruple.

Looking at intra-regional trade these studies conclude that due to low complementarity of intra-MED trade and low GDP levels, it seems that according to normal trade relations, as suggested by gravity models, potential for an increase in intra-regional trade is rather limited. Out of the MED5 mainly Egypt, Tunisia and Jordan show the highest potential for growth of trade within the region. Nugent and Yousef (2005) suggest more buoyant trade possibilities for intra-MED FTA which they suggest could triple. Yet, even if the tariff and non-tariff barriers could be reduced dramatically, at the current predicted levels of GDP growth it would take up to 40 years for the MED5 to reach their potential trade levels with the EU.

## **5. Analysis of NTBs in the Euro-Med Zone**

### **5.1. Introduction<sup>32</sup>**

This report aims at providing an overview on the non-tariff-barriers (NTBs) existing in the context of trade relations between the European Union (EU) and the selected South Mediterranean countries (SMCs), namely Egypt, Israel, Jordan, Morocco, and Tunisia (MED5). Data and information on NTBs are not readily available; hence the report depended on a number of sources of information which might not be fully comprehensive or updated. The information presented and findings of the report should be treated as highlights on the main problematic areas. The main sources of information consulted included the World Trade Organization (WTO) Trade Policy Reviews including Egypt (2005), Israel (2006), Jordan (2008), Morocco (2009) and Tunisia (2005); European Commission Action Plans documents, European Neighbourhood Policy (ENP) Country Reports, National Indicative Programmes, Strategy Papers, ENP Progress Reports, market access and Rapid Alert System for Food and Feed (RASFF) databases; United States Trade Representative (USTR) Country Reports; and United States Department of Commerce, United States Commercial Service (2008; 2009) Doing Business Reports: Country Commercial Guides for US Companies; in addition to a number of other studies and reports as indicated in the list of references.

Recent research has clearly illustrated the importance of NTBs, as trade barriers and has compared them with the tariffs as they apply to imports and exports of many developing countries. Particularly interesting are the findings of Kee, Nicita and Ollagregao (2008) Hoekman and Nicita (2008). Table 14 is drawn from that study and uses in its estimates data from the early 2000's, which were the most recent available data at the writing of the paper. It shows that the trade restrictiveness of NTBs plus tariffs (NTB+T) is at times twice as high as that of tariffs alone. For instance in Tunisia the NTB+T is 53% higher than that due to tariffs alone (.52 versus .34). In Morocco it is more than double (.51 versus .25). The importance of

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<sup>32</sup> The author Ahmed Farouk Ghoneim would like to thank Mr. Moamen Abdel Hamid and Ms. Yasmin Refaat for excellent research assistance.

the trade restrictiveness of the NTB therefore suggests that initiatives towards implementing deep integration between the EU and the Mediterranean countries should pay special attention to reducing these NTN. Such initiatives can benefit from multilateral approach, but do not have to await FTA initiatives to benefit the growth performance of the countries undertaking these reform measures.

**Table 14. Trade restrictiveness: non-tariff barriers and tariffs**

Country	Trade restrictiveness due to tariffs	Trade restrictiveness due to tariff and NTB – average	Trade restrictiveness due to tariff and NTB- Agriculture	Trade restrictiveness due to tariffs and NTBs- manufacture
Egypt	0.44	0.68	0.35	0.7
Israel	n/a	n/a	n/a	n/a
Jordan	0.13	0.24	0.24	0.24
Morocco	0.25	0.51	0.71	0.48
Tunisia	0.25	0.37	0.94	0.29
Middle East and North Africa	0.12	0.216	0.32	0.19

Source: Kee, Nicita and Ollareaga (2006). Data are from early 2000’s. This paper also provides estimates of the trade restrictiveness as experienced by these countries in their export markets, which are larger than the trade restrictiveness of their imports.

## 5.2. Standards

### Institutional Infrastructure

South Mediterranean countries (MED5) have long established standards organizations. The main bodies for standards setting and development in the identified countries are the Egyptian Organization for Standardization and Quality (EOS) in Egypt, the Standards Institution of Israel (SII) in Israel, the National Institute for Standardization and Industrial Property (INNORPI) in Tunisia, the Moroccan Industrial Standardization Office (Service de Normalisation Industrielle Marocaine “SNIMA”) in Morocco and the Jordan Institute of Standards and Metrology (JISM) in Jordan.

The aforementioned bodies are governmental (with the exception of Israel) and have wide mandates dealing with metrology, standardization, testing, conformity assessment, product certification, labelling, management system certification,

training activities, and issuing of conformity and quality marks. MED5 differ among each other in terms of specific issues such as the number of standards, mandatory and voluntary standards, as well standardization systems applied on imported inputs. Moreover, in some countries as Egypt, Israel, and Tunisia independent (from the organizations setting standards) accreditation bodies have been established whereas in Jordan accreditation is a mandate of the main body responsible for standards setting. In Morocco, accreditation is undertaken by the Ministry of Industry, Commerce and New Technologies. Verification of compliance with standards set is either the responsibility of the standards bodies or the responsibility of related ministries and bodies.

In the case of *Egypt* the Ministry of Health, Ministry of Agriculture, Atomic Energy Authority and for imported goods, and General Organization for Exports and Imports Control (GOEIC) participate in the process of verification. EOS is the national TBT enquiry point. The accreditation body is the Egyptian National Accreditation Council which is affiliated to the Ministry of Trade and Industry. Egypt has accepted the WTO Code of Good Practice for the Preparation, Adoption and Application of Standards. It is a member of the International Organization for Standardization (ISO). In addition to standards, the EOS also issues quality and conformity marks. Quality marks are issued by the EOS upon request by a producer and is valid for two years. Conformity marks are mandatory for engineering goods, and address health and safety concerns. Monitoring is undertaken via random testing. Egypt has made no notifications to the WTO TBT Committee.

SII in *Israel* is responsible for the overall management and coordination of standardization activities. The Commissioner of Standardization in the Ministry of Industry, Trade, and Labour, is in charge of standards enforcement and approval of testing laboratories and Israel's enquiry point under the TBT Agreement. Depending on the type of standard, other agencies such as the Ministries of Health, Communication, Agriculture and Rural Development, and Industry, Trade and Labour are involved in developing or enforcing standards. If there are different standards in developed countries, the SII may publish alternative standards, provided that each is based on a current international standard. In this context, the Israeli authorities noted that they face difficulties in harmonizing Israel's standards with its two main trading partners - the European Union (EU) and the United States (US), and in the case of absence of international standards in some specific areas (e.g. on food labelling and construction materials). Inspection is undertaken for imports on the borders and for domestic produced goods in the market. Products with an SII Standards Mark, certifying compliance with a certain standard, can enter Israel without being tested.

In *Jordan*, Jordan Institution for Standards and Metrology (JISM) serves as WTO TBT enquiry point. JISM is the main body responsible for preparation, adoption, and application of standards in Jordan.

In *Morocco*, SNIMA serves as the WTO TBT enquiry point. Moroccan Standard or Norme Marocaine (NM) certification of products is administered in accordance with the international guide ISO/IEC 65.<sup>33</sup> In order to use the NM mark, an application must be submitted to the SNIMA, which examines the technical documentation and appoints a verification team. A draft law has been revived aiming at transforming the SNIMA into an institute (with financial autonomy) responsible for standardization and certification, to be called the *Institut marocain de normalisation* - IMANOR (Moroccan Standardization Institute). Regular monitoring visits ensure the follow-up. For the time being, Morocco has signed two Mutual Recognition Agreement (MRA) with Egypt in 2005 (but did not come into force) and with Tunisia in 2008. Morocco has also set up a system for certifying enterprises (their management) based on the ISO 9000 and ISO 14000 standards, and a system for accrediting testing and calibration laboratories managed in accordance with the criteria in the international guide ISO/IEC 58. Accreditations are granted on the basis of Moroccan standards.<sup>34</sup>

In *Tunisia*, INNORPI serves as WTO TBT enquiry point. INNORPI is a member of ISO. The authorities are in the process of reviewing the technical import regulations. Technical regulations must be approved by order, whereas standards which are not mandatory are simply published and registered with INNORPI. Moreover, the legislation allows various ministries to regulate (through laws, decrees, orders or circulars) the products within their jurisdiction (for example, medical products, agro-food products, telecommunications equipment). INNORPI accepts the "Tunisian Standards" or Norme Tunisienne (NT) product certification, after the user of the mark applies to INNORPI and INNORPI proceeds with a verification process. Monitoring takes the form of periodic inspections. Private organizations are accredited for system certification (for example, ISO 9001, ISO 14001, HACCP), however the certification so far has only been granted for organizations established under Tunisian law. The National Accreditation Council (CNA) is the only authority responsible for the accreditation of conformity assessment organizations (testing laboratories, certification and verification organizations).

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<sup>33</sup> The NM mark may apply to all products and, ultimately, to supply of services. The Ministry responsible for industry may guarantee that the products conform to Moroccan standards by means of the NM mark.

<sup>34</sup> Laboratories are assessed on the basis of one of the NM ISO 25 and NM ISO 17025 references, which follow, respectively, the international guide ISO/IEC 25 and the international standard ISO/IEC 17025 on general requirements for the competency of testing and calibration laboratories.



CNA is not yet independent, but there are efforts to make it fully independent. The CNA is an associate member of the International Accreditation Forum (IAF). The Tunisian authorities envisage the establishment of a national agency for the accreditation of laboratories and inspection and certification organizations.

### **Compliance with WTO and EU Acquis**

The degree of compliance of MED5 with WTO TBT Agreement is relatively high when reviewing the WTO Trade Policy Reviews of the MED5. In fact, all five countries have established TBT enquiry points as aforementioned. Not all standards issued are automatically notified to the WTO as in the case of Egypt. On the other hand, Israel has been the most active among MED5 in submitting a large number of notifications to the WTO TBT Committee, mostly concerning the adoption or revision of voluntary or mandatory standards.

The MED5 are in different stages in terms of harmonizing their standards with the EU, but all have been progressing in an impressive manner. All MED5 have made progress to negotiate an Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA). For example, in Egypt the EOS announced in 2008 that it has completed harmonizing more than 80% of its mandatory standards with EU standards and as of January 2008 Egypt became an affiliate member of the European standards body CEN. In Israel several amendments to the standards law were adopted, and Israel has started to transpose the EU sectoral legislation in priority sectors (as pharmaceuticals) in its domestic regulations. SII indicated that it is in the process of applying for membership in European standards development organizations, as the European Committee for Standardization (CEN). The Israel Laboratory Accreditation Authority (ISRAC) is a member of the International Laboratory Accreditation Cooperation (ILAC). As of January 2008, Israel became an affiliate member of the European standards bodies CEN and CENELEC. Jordan is in the process of adapting six new technical regulations from relevant EU Directives within the framework of the Jordan-EU Association Agreement. The draft regulations concern general product safety, low voltage, toys, gas appliances, pressure equipment, and measuring equipment. The JISM is a full member of the International Organization for Standardization (ISO) and the International Laboratory Accreditation Cooperation (ILAC) and an affiliate member of the European Cooperation for Accreditation (EA). In Tunisia, efforts have been made to harmonize a large proportion of Tunisian technical regulations with those of the EU. So far, Tunisia has not concluded any Mutual Recognition Agreement (MRA). MED5 have been proceeding, albeit on different paces, with abolishing mandatory standards. The action plans and related progress reports for

all MED5 have been emphasizing the need to conclude MRAs. However, it is not very clear how MRAs can be concluded in the presence of weak infrastructure for conformity assessment, of non-accredited laboratories or non-recognized national accreditation bodies.

As the above review has shown, despite the significant developments undertaken by MED5 in terms of harmonizing their standards with those adopted on international basis, there is a lack of MRAs signed between MED5, with the exception of Israel, and their trading partners whether it is the EU or others. This situation reflects the absence of trust in the standards procedures adopted in MED5 or the weak accreditation domestic organizations, where they have not yet been granted international recognition. In other words, there is a lack of credible comprehensive conformity assessment systems that allow trust in the standards' systems in MED5. Conformity assessment systems<sup>35</sup> include a series of processes including testing, certification, and accreditation, among others. If one of such processes is not credible or missing the whole conformity assessment system is likely to fail. A major dimension of the conformity assessment problem is associated with the lack of investments in related infrastructure including laboratories and needed equipments. This situation could be improved with technical and financial assistance from the EU so as to give greater confidence on the conformity assessment systems. An analysis of the exact status of infrastructure and the amount of investments needed to upgrade it would be useful to start the negotiations between the EU and MED5 to improve the situation. Moreover, technical assistance is needed whenever new EU regulations that can have an impact of MED5' exporters are adopted. For example, the recent introduction of REACH has created problems for some of MED5 exporters to the EU<sup>36</sup>.

### **NTBs in the Field of Standards**

MED5 have been working on providing flexibility and harmonizing their standards with international norms. For example, in the absence of a mandatory Egyp-

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<sup>35</sup> Conformity assessment is the name given to the processes that are used to demonstrate that a product (tangible) or a service or a management system or body meets specified requirements. Conformity assessment can cover testing, surveillance, inspecting, auditing, certification, registration, and accreditation. See [http://en.wikipedia.org/wiki/Conformity\\_assessment](http://en.wikipedia.org/wiki/Conformity_assessment) and [http://www.iso.org/iso/resources/conformity\\_assessment/what\\_is\\_conformity\\_assessment.htm](http://www.iso.org/iso/resources/conformity_assessment/what_is_conformity_assessment.htm).

<sup>36</sup> REACH is the EU Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals. It entered into force on 1st June 2007. It streamlines and improves the former legislative framework on chemicals of the EU. (see [http://ec.europa.eu/enterprise/reach/index\\_en.htm](http://ec.europa.eu/enterprise/reach/index_en.htm)).

tian standard, Ministerial Decree Number 180/1996 allowed importers to choose a relevant standard from seven international systems including ISO, European, American, Japanese, British, German, and, for food, Codex standards (USTR, 2008; WTO, 2005). In the case of Israel, since 1999 Israeli law mandates that SII adopts multiple international technical standards whenever possible. Moreover, the SII has signed a number of MRAs with foreign organizations in the fields of electronic components, electrical and energy products, food safety, and hydraulic products. Israel has also accepted the Code of Good Practice for the Preparation, Adoption, and Application of Standards. Israel has signed MRAs on test data with several certification and testing organizations worldwide (45 organizations in 20 countries). It has also signed memoranda of understanding for mutual recognition of ISO 9000 registration with nine foreign organizations. The Jordanian government is currently reviewing the current Standards and Metrology Law with the aim of incorporating provisions for market surveillance, to ensure compliance with product safety requirements (Draft Standards, Metrology, and Product Safety Law). The application of the new law is expected to gradually reduce the border inspections on industrial products and replace them with a system of "proactive" surveillance on the domestic market. In Morocco, SNIMA accepted the Code of Good Practice for the Preparation, Adoption and Application of Standards. In Tunisia, INNOPRI has accepted the Code of Good Practice for the Preparation, Adoption and Application of Standards.

Despite the progress made by the MED5 to harmonize their standards with international norms, several problems still apply, namely:

- *Labelling and packaging requirements* for a wide array of imported goods seem to be the major NTB identified in all MED5 as reported by the US in USTR reports or by the EU in different databases (market access databases). The specific labelling and packaging measures are strict when dealing with some items including foodstuffs, pharmaceuticals and textiles. Such measures result in increasing costs for exporters to MED5 including Egypt, Israel, Morocco, Jordan, and Tunisia. Available information identify that such measures also impeded in intraregional trade among MED5 themselves in the context of Agadir agreement (Ghoneim, 2009).
- *Testing procedures* at the borders differ from a product to another according to its sensitivity of that particular product and differ from one SMC to another. The testing procedures often lack uniformity and transparency (USTR, 2008; Ghoneim, 2009).
- *Inadequately staffed and poorly equipped laboratories* often yield faulty test results and cause lengthy delays.

- Application of *market surveillance systems* which in most of the countries, with the exception of Israel and to a lesser extent Jordan, are still in their infancy.
- The flexibility identified in *choosing among different international standards* as in the case of Israel and Egypt is not fully implemented which creates a large room for uncertainty among exporters to those countries. In Tunisia there is huge complexity for the application of import technical regulations, which affects negatively the clearance of goods from customs and has negative effect on the competitiveness of Tunisian firms.

### 5.3. Sanitary and Phyto-sanitary Standards (SPS)

#### Institutional Infrastructure

SPS measures are either set by the same standards bodies mentioned above or are set in collaboration with the specific ministries of agriculture in the identified MED5.

*Egypt:* The General Organization for Veterinary Services (GOVS) and the Plant Quarantine Department in the Ministry of Agriculture and Land Reclamation (MoALR) are the main bodies in issues related to SPS. They perform regulatory, inspection, testing and certification functions through a network of affiliated laboratories. The Ministry of Health, jointly with the GOVS, is responsible for food safety-related sanitary issues, while other agencies might be involved whenever a specific risk profile is involved (Food Control Agency, Atomic Energy Agency for radiations, etc). The Foreign Trade Unit in the Ministry of Agriculture is Egypt's SPS enquiry point. Egypt has not notified any SPS measures to the WTO. In addition to quality control, there are various controls and inspection procedures for food products, live animals, and animal and plant products. The controls are implemented by the Food Control Agency for foods products; the Atomic Energy Agency, to examine radiation levels; the Agriculture Quarantine Body for fruit and seeds; and the Animal Quarantine Body for fresh and frozen animal products, hides and skins, and raw wool. Specific products are subject to extra inspection and documentation including meat which must be accompanied by "Halal" slaughtering certificate, and cotton which is subject to fumigation in both its country of origin and Egypt. Wooden containers must be accompanied by an official certificate declaring the containers to be free of insects and pests.

*Israel:* The Israeli State Veterinary Services is the main authority in SPS areas. The Plant Protection and Inspection Service (PPIS) and the Veterinary Service in the Ministry of Agriculture and Rural Development are Israel's national enquiry points and the notification authorities with respect to the SPS Agreement. PPIS and Veterinary Service are also in charge of ensuring compliance with SPS measures. The Ministry of Agriculture and Rural Development is in charge of all issues relating to animal and plant health, while the Ministry of Health is the regulatory agency responsible for the safety of cosmetic and pharmaceutical products. All food and health products must be registered with the Ministry of Health before they can be sold in Israel. For certain foods - meat in particular - Kosher certificates may be required.<sup>37</sup> The competent authority for Kosher certification is the Chief Rabbinate in Israel. A number of Rabbis located abroad have been approved by the Chief Rabbinate to issue Kosher certificates. Companies seeking certification must pay the costs of rabbinical inspection to determine that the ingredients and manufacture of the products satisfy religious standards. According to the authorities, the fee charged is based on the cost of sending the inspector to the premises of the manufacturer (including transportation, accommodation, and a predetermined per diem fee). It has been reported that foreign businesses have complained that the process of granting Kosher certificates in Israel is expensive and complex (USTR, 2007).

*Jordan:* The Ministry of Agriculture is the sole authority responsible for SPS measures to protect animal and plant health against pests and diseases (Article 5.1 of the Law on Agriculture No. 44 of 2002). In addition, it is responsible for technical regulations concerning veterinary medicines, vaccines, pesticides, and fertilizers. The Ministry also acts as the SPS enquiry point.

*Tunisia:* SPS measures are generally taken on the initiative of the Ministry of Agriculture. The Tunisian enquiry points for SPS matters are the Ministry of Agriculture and the Ministry of Trade, the latter also being responsible for notifications. Tunisia has never notified the WTO of national SPS measures that might affect external trade, and WTO members have never expressed any concerns with regard to Tunisia. At the border, conformity is assessed by the veterinary service for animal products and by the phyto-sanitary control service for plants and plant products, where plant and animal products are subject to several tests. SPS measures are regulated by domestic laws and regulations and SPS investigations are strict and conducted at borders.

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<sup>37</sup> "Kosher" refers to those foods that are subject to Jewish dietary laws, such as the separation of meat and milk. Companies wishing to obtain the Kosher certificate must comply with these dietary laws and be approved by the Chief Rabbinate (GATT, 1995(b)).

*Morocco*: SPS specific certificates for some products are mandatory to be allowed entry into Moroccan market. Moreover, imports of potato seedlings, and tomato and eggplant seeds must also be accompanied by an additional declaration from the country of origin certifying that they are free of certain parasites and diseases, and have been screened, cleaned and placed in new sacks. Phyto-sanitary inspection is conducted by the Plant Protection Service or the Seed and Seedling Control Service attached to the Ministry responsible for agriculture, which inspects the goods, draws up a record and places a stamp on the declaration to indicate that the products may enter, are refused entry, are to be destroyed or are to undergo fumigation. Morocco has notified to the WTO a series of SPS measures, including emergency measures such as those taken during the Bovine Spongiform Encephalopathy (BSE) crisis and the dioxin crisis.

As in the case of standards, MED5 have been working on providing flexibility and harmonizing their SPS measures with international norms. In Egypt, EOS has completed a program to identify mandatory and optional requirements in each new product standard. The new standards follow CODEX guidelines for safety and the protection of human health. A new National Food Safety Authority is expected to be established in the near future following the American model of FDA. Jordan has the majority of its announced SPS regulations WTO consistent. Moreover, The Jordan Food and Drug Administration (JFDA) were established in 2003 to act as regulator for the safety and quality of food and drugs. Imported agricultural and food products are inspected by a border committee composed of representatives from (JFDA), Ministry of Agriculture, and JISM. JFDA has applied a risk-based system for inspection of imported food consignments. Moreover, JFDA applies a risk-based assessment for domestic produced products as well. In addition, in 2005, Jordan adopted instructions on the treatment of wood packaging material in international trade, based on International Standard of Phyto-sanitary Measures (ISPM) No. 15. Morocco is a member of the European and Mediterranean Plant Protection Organization. In Tunisia, INNOPRI is a member of the Commission of the Codex Alimentarius.

## **Compliance with WTO and EU Acquis**

Notification to WTO of SPS measures applied normally takes place from all MED5, with the exception of *Egypt*, including the measures related to Avian Influenza and the BSE. Moreover, all MED5 have established SPS enquiry points. There are some specific problems that still remain where not all SPS measures issued are automatically notified to the WTO or application of shelf life regulations that are science based and WTO consistent.

*Israel* notified three emergency measures to the WTO, all concerning the importation of live bovine animals and products thereof from countries where BSE is prevalent. Jordan has made several notifications to the SPS Committee. Most are ex-post emergency notifications concerning animal health, notably to prevent an outbreak of Avian Influenza. No SPS trade concerns affecting Jordan have been made.

In terms of SPS measures, it seems based on the review of Rapid Alert System for Food and Feed (RASFF) that there are a number of issues that seem to be dominant in MED5 which are not in line with *acquis* regulations. For example, a number of notifications to RASFF have identified high aflatoxin content of some ground nuts, and other exports from Egypt to the EU. Similarly, a number of notifications identified too high count of *Escherichia coli* in live clams (*Tapes decussatus*) from Tunisia, as well as high content or undeclared sulphite in a number of Moroccan and Tunisia exports to the EU. Moreover, anecdotal evidence shows that stringency of applying measures by MED5 seem to be relatively stronger at the borders with less effective monitoring in the domestic market signalling weak market surveillance systems. Those are areas where EU technical assistance can help as well as the need to harmonize standards.

### **NTBs in the Field of SPS**

In the case of SPS measures there are a number of general problems that affect exporters to MED5 though they differ in the degree of their urgency.

- *The issue of shelf-life and the ad hoc application of shelf life procedures* for imported products is a major concern for food products exporters to MED5. Jordan has undertaken positive developments in this regard and has replaced the shelf life system with "best before".
- *Special religious requirements* as the case of Halal meat and Kosher regulations cause several complications for specific food stuff exporters to MED5 regarding the procedures and certification requirements.
- *There are also a number of specific products that have been subject to SPS measures* applied by MED5 on imports from the EU. For example bans on importation of live birds, their meat and product have been applied by Egypt, Jordan, Morocco, and Israel. Bovine meat and meat products have also faced bans in Egypt, Jordan, and Israel. The bans on such products were introduced in the wave of the spread of Avian Influenza and the BSE. With the end of those epidemic diseases, MED5 either still apply the bans or have allowed the importation of certain sub categories of those products (e.g. Egypt removal of ban on the one day

ducklings) but still apply stringent SPS measures that result in significant financial costs and clearance delays for EU exporters.

- *A number of SPS measures are country specific.* For example, Egypt applies a complicated certification process for the importation of live animals where the importer following agriculture Minister's Decree No. 1647/1997 has to submit to the General Administration for Veterinary Services an import request indicating a number of issues including the type and number of animal, means of transportation, and expected ate of arrival. The Administration for Veterinary Services then decides whether the import request should be approved or not based on the epidemic status of the country of origin. In addition, a Committee of veterinarians might be sent to the country of origin to check the live animals and accompany the consignment when shipped. Egypt also applies strict measures regarding contaminates (veterinary drugs, pesticides, and hormones) specifically in meat and edible meat to check for dioxin. Despite the fact the dioxin crisis is over for more than three years, such measures might be not necessarily needed, especially that they costs EU exporters high fees for testing and delays in obtaining results. Moreover, an import licensing system is applied for some edible fruits, citrus fruit, and nuts. Such licensing system is subject to un-notified changes and the goods themselves are sometimes unjustifiably rejected which affect negatively EU exporters. Israel does not have a proper phyto-sanitary legislation for imports specifically of vegetables (uncooked or cooked by steaming or boiling in water), frozen vegetables, edible vegetables, and certain roots and tubers. Tunisia also imposes a ban on a number of fruits and vegetables if they contain specific food additives as Tartazine (NT 9025) without justified scientific basis (EU market access database).
- *The multiplicity of systems and documentations required in each country* leads to major problems for MED5 in accessing each other markets due to the. Lack of transparency on SPS requirements and vague application has resulted in denial of market access for intra-Agadir exports, where imposition of ad hoc fees or simply denial of market access for a wide array of agricultural and processed food products has been the case (League of Arab Nations, 2008).
- *Moreover, it is not clear to what extent national treatment* is applied regarding SPS measures. Several incidents of non-complying with international rules (e.g. Codex) are reported on the borders with no clear information on whether the same treatment is applied to domestically produced goods.



- *Exporters from MED5 face high compliance costs associated with EU SPS standards, certificates, and measures as HACCP, EUREPGAP, and BRC. Though complying with such measures provides exporters with access to the EU markets, small producers and exporters from MED5 to the EU have a difficult time to satisfy all these requirements (Mandour, 2006; Aloui and Kenny, 2006). The traceability system has certainly added extra compliance costs for exporters from MED5 to EU (Frohberg, et al, 2006). All such additional costs, when combined with EU agricultural production and export subsidies and erosion of preferences for MED5 due to the proliferation of EU regional trade agreements contribute to undermine the competitiveness of MED5 exports to the EU market. There are also some specific country specific problems related to particular products as in the case of brown rot disease of fresh potatoes and high aflatoxin in nuts exported from Egypt to the EU. Though the Egyptian side has not claimed that there are no problems in its exports, but it has signalled that the stringency of precautionary measures undertaken by the EU side has been exaggerated.*

MED5 in general are not active in the WTO SPS committee, which can be a reason behind MED5 not identifying NTBs facing their exporters in the EU. For example, during the period 1995 to 2003, about 270 counter-notifications were made through the SPS Committee where none of the complaints originated in MED5, although the EU received the lion's share of such complaints. As argued by Henson (2006) and GAIN (2008) the increasing number of complaints against the EU can be a result of the following reasons: (i) the harmonization process of SPS measures within the EU which often leads to the adoption of the most stringent standards which have been used previously in individual EU countries; (ii) the frequent use of the 'precautionary principle' when adopting food safety standards; and (iii) the complex administration of the EU.

#### **Measures Suggested for Further Collaboration between EU and MED5 in the fields of technical barriers to trade (TBT) and SPS**

- Reaching an Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA) on bilateral basis with all MED5 is a priority while undertaking all the necessary financial and technical support to establish comprehensive conformity assessment systems at MED5. A first step in this regard should start by undertaking a gap analysis between EU and MED5 conformity assessment procedures and infrastructure.
- Setting guidelines for conducting verifications, import checks, certification, and administrative provisions for imports.

- Providing technical and financial assistance to activate the usage of systems as post-audit market surveillance while at the same time helping MED5 to establish early warning systems.
- Establishing mechanisms for monitoring the misuse of SPS measures on the borders for EU and other MED5 trade.
- Enhance the capacity of MED5 to actively participate in standards and SPS related international forums.
- Extension of EU technical assistance to cover areas like establishing accredited laboratories to accurately diagnose diseases and pests, identify toxic residues, and verify the quality of agricultural chemicals and veterinary products.
- Establishing mechanisms to ensure that information related to systems as Rapid Alert System for Food and Feed (RASFF) reach the exporting community in MED5 and establishing a similar system with technical support from EU for MED5.
- Assist the MED5 to streamline their procedures and improve their transparency so as to enhance intra-SMC trade as well as improving their domestic market monitoring and surveillance.
- Enhancing the capacity of MED5 to implement traceability requirements of EU.
- Agreeing on a detailed process of equivalence determination for standards and SPS certificates in specific fields that are of trade importance for EU and MED5.
- Establishment of a joint management committee for sectors and products of importance for the EU and the MED5 dealing with standards and SPS measures.
- Explicit provision of technical assistance on standards and SPS matters as in the case of EU FTA with Chile. This can be undertaken either by amending the Association Agreements or emphasizing them in the Action Plans.

## **5.4. Customs**

### **General Customs Reforms in MED5**

All MED5 have undertaken substantial customs reforms though the pace has differed among the different countries. Reforms included amendments of the customs

laws to be WTO consistent, simplification of customs procedures, and automation. As a result of such reforms, the average clearance time in all MED5 dropped significantly, with the least improvement experienced in Tunisia<sup>38</sup>. All MED5 apply the Harmonized Commodity Description and Coding Nomenclature (HS). None of the MED5 applies pre-shipment inspection. Probably Israel enjoys the most advanced modernized automated customs system among the MED5, however Morocco and Jordan have also made significant progress in modernizing their customs electronic management systems. For example, Jordan introduced the UNCTAD's Automated System for Customs Data (ASYCUDA), combined with a risk-based inspection system. Moreover, Jordan Customs launched a Golden List program to further facilitate customs procedures. The program established a customs-business partnership relying on post-clearance audit, offering expedited procedures to its members, such as reduced frequency of cargo inspections and pre-arrival clearance of shipments. Morocco introduced electronic data interchange (EDI) which allowed air and sea cargo manifests to be transmitted electronically, and established an automated customs clearance process based on risk assessment methods while introducing the electronic circulation of information on all foreign trade legislation and regulations via the website for trade operators. Moreover, new customs clearance procedures as customs clearance on site (PDD) have been introduced and are carried out on the premises of the importer. Egypt has also undertaken substantial reforms where amendments of the exports and imports regulations, simplification of customs procedures, introduction of risk management techniques, and automation have resulted in reducing substantially the clearance time. Tunisia, as well has started its reforms in 2001 with the introduction of the Automated Customs Information System (SINDA). The introduction of SNIDA has helped to reduce clearance times to some extent. Moreover, the 2004 Finance Act amended the Customs Code to allow the shippers manifest to be filed before the goods arrive at the port or at the airport. However, clearance time has not dropped significantly as happened in the case of other MED5 (less than an hour for the majority of goods) and continues to be relatively lengthy due to lengthy quality and technical investigations. The latest *Doing Business Report* of the World Bank notes that time required to import was recorded as taking 12 days in Israel, 18 days in Morocco, 22 days in Jordan, 15 days in Egypt, and 23 days in Tunisia. One area of concern where developments undertaken by MED5 have remained modest is the application of post release audit systems, which if well undertaken would result in fewer physical inspections and thus speedier release from customs.

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<sup>38</sup> It is worth emphasizing that traders with Tunisia might not identify this as a major problem due to the application of several systems. What is identified in the text is the normal system without including free zones or alike, which in fact enjoy a better treatment for goods traded.

## **Conformity with WTO Customs Valuation Agreement**

All MED5 have adopted the WTO Customs Valuation Agreement in theory. However, in practice, and as revealed by WTO TPR of the MED5 there exist large number of disputes between importers and custom authorities regarding the application of the Customs Valuation Agreement.

## **Duty draw back and Temporary Admission**

All MED5 have provisions for duty drawback and temporary admission regimes and there are indications that the application of these regimes is gradually improving. However, no systematic information is available on the functioning of these systems.

## **Extra charges and surcharges**

Extra charges and surcharges are applied by MED5 in addition to the applied rates, especially in intraregional trade exercised by MED5 under the context of Agadir and Great Arab Free Trade Area (GAFTA) (Ghoneim, 2009). There is no clear information whether such extra charges and surcharges are applied on EU imports in MED5. In many cases, it is difficult to claim that all such extra charges are WTO inconsistent as some of them are some appear unreasonably high (in excess of the “cost recovery”) such as testing fees, which would suggest they act as NTBs. With the exception of Egypt, all other countries apply such extra charges and surcharges which in many cases include a discriminatory aspect when they are applied only on imported and not domestic goods. Israel applies a wharfage fee of 1.02% on goods imported via maritime ports. Moreover, some items, mainly edible oils, are subject to a tariff surcharge, although Israel has bound all other duties and charges at zero, and there is an import levy imposed on selected imported items from all countries. Jordan applies an import processing fee of 0.2% with a minimum of JD 10 and a maximum of JD 250 per declaration. Morocco has incorporated the fiscal levy on imports into its applied tariffs, which is considered to be WTO inconsistent as it is not reflected in the bound rates scheduled in the WTO. As a result, applied rates in a large number of tariff lines have exceeded their bound rates. Moreover, Morocco applies variable duty on a number of imported agricultural imports which result in the applied rates exceeding bound rates for such specific imported goods. Tunisia applies customs service fee, charged at the rate of 3% of the duties and taxes collected, and the computer processing fee.

Such extra charges and surcharges remain a major impediment to trade among Agadir members as Ghoneim (2009) has identified. However, it is not clear to what extent such measures affect trade between MED5 and other countries including EU though a number of such measures have been reported in USTR reports and WTO TPR implying that they act as barriers to other countries' exports to MED5. Moreover, there exists no current mechanism to monitor the application of such procedures.

### **Cumulation of Rules of Origin**

There was no available information of the extent of utilizing bilateral and diagonal cumulation of rules of origin, especially among the Agadir countries due to the short time that has elapsed since the effective implementation of the Pan Euro Med Protocol in 2007. However, based on the limited information available (survey undertaken in Egypt by the Confederation of Egyptian-European Business Associations) and the experience of consultants in other related research cumulation (bilateral and diagonal) is not fully utilized. The main reasons for lack of cumulation between EU and MED5 are the high costs of EU inputs (bilateral), whereas in the case of cumulation among the signatories of the Agadir Agreement (diagonal) is that exports from the various signatories are very similar. AS such there is only a modest level of trade amongst them. Also there is a lack of information on matching opportunities between produces and exporters in MED5. The two sector studies undertaken by the Agadir secretariat (textile and clothing) have proven to be useful in terms of enhancing cumulation opportunities. Similar studies with the support of the EC should be encouraged.

### **Other major customs inconsistencies with WTO and EU Acquis**

In general, the import products that are subject to mandatory control in MED5 suffer delays due to the multiplicity of inspection agencies and lack of coordination among them. This case is highly evident in Egypt and Tunisia. As a result, there is a delay in customs clearance. In the proposals submitted to WTO several Members in the context of the Trade Facilitation negotiations of the WTO Doha round pertained to improving the coordination and efficiency of all agencies with a responsibility of clearing goods at the borders. EU support could greatly assist to ensure that the other border agencies follow Customs in modernizing and streamlining their clearance procedures.

## **Trade related Investment Measures (TRIMS) consistency**

Egypt, Morocco and Tunisia are among the countries that apply measures that are not consistent with TRIMS as reported in the WTO TPRs. The Egyptian customs law allows voluntary tariff reductions in case of increase of local content. Tunisia applies local content requirements in pharmaceutical industry. In Morocco, locally-made components amounting to 60 to 70% are required in the automobile assembly industry (and trade such local content against exemption from value added tax (VAT) for some automobile manufacturers). Tunisia and Morocco have lately undertaken steps to comply with TRIPS. Israel and Jordan abide by TRIMS.

## **Measures Suggested for Further Collaboration between EU and MED5**

It seems that customs reforms are accelerating in MED5, at least in terms of customs clearance procedures. However EU support in the following areas might be useful:

- Streamlining customs procedures for intra SMC trade would boost such trade that is still below its apparent potential this might require that a monitoring mechanism be established to ensure compliance of MED5 with customs valuation. Also the EU could use its influence to persuade MED5 to eliminate extra charges and surcharges imposed on the intra-MED5 trade especially in the context of Agadir agreement.
- Ensuring proper adoption of post-clearance audit which is not practiced in all MED5, or is still in its infancy (Jordan) and could benefit from being strengthened. Such support could include training to improve technical procedures and capacity building. This could greatly contribute to faster release of imports. Provide assistance to correctly implement the WTO Customs valuation Agreement
- In the area of diagonal cumulation of rules of origin EU can provide technical assistance to enhance the flow of information on the possible matching opportunities between MED5 producers and exporters.

## **5.5. Competition Policy**

All MED5 have competition laws which vary significantly in dates of their adoption. Egypt has enacted its law in 2005, whereas Israel has enacted its law in

1988, amended in 1999 and its regulations came in effect in 2004. Jordan has enacted its law in 2002 (amended in 2004), whereas Morocco has its law since 1999, and Tunisia since 1991. The laws differ significantly among each other in terms of definitions, activities they cover, and exemptions they provide. For example, Egyptian law defines a dominant position for a firm that controls 25% of the market whereas Israel sets the threshold at 50%. Egyptian law does not cover mergers and acquisitions whereas Israeli law emphasizes the control of mergers and acquisitions and Tunisian law supervises the process of mergers and acquisitions. Egyptian law provides exemption for public utilities whereas Israeli law provides exemptions for agricultural marketing boards, and arrangements applying to international sea or air transport. Moroccan law allows exceptions for cases which result in economic progress whereas Tunisian law provides for exceptions in cases that result either in technical or economic progress or procure a fair share of profits for producers.

Moreover, the institutional setup of bodies responsible for enforcing the laws differs. In Israel, there are two bodies, namely: the Israeli Antitrust Authority (IAA) which is an independent government body and the Antitrust Tribunal which is a specific judiciary body for competition. In Egypt, the Egyptian Competition Authority is a governmental body that follows the Prime Minister in law who delegates his power to the Minister of Trade and Industry. In Morocco, there is a competition council which gives non binding advisory opinion to the Prime Minister who is the sole authority that may issue rulings on anti-competitive practices. In Jordan, there are 2 competition bodies dealing with competition matters including the Competition Directorate which is affiliated to Ministry of Industry and Trade (expected to become independent soon), and the Committee for Competition Affairs which advises on the general competition policy. In Tunisia, there are also two bodies, which are Directorate-General for Competition of the Ministry for Trade; and the Competition Council (an independent authority).

Regarding state aid, none of the MED5 has provisions that are aligned to those of the EU. Based on the review of the progress and country reports published by the EU on MED5 for implementing the Neighbourhood Policy, it seems that state aid is among the major areas where cooperation between EU and MED5 is still lagging. Moreover, there is no agreement on the definition of state monopolies despite the fact that the Action Plans of the EU with MED5 identified the need to reach a common definition on such matters, exchange information, experience and know how on state aid distorting competition, and develop mechanisms necessary to monitor state aid with the ultimate aim of complying with the *aquis* to prepare MED5 for participation in the EU internal market.

It is not clear how such competition laws are implemented in reality, but a number of reports and studies have identified that anti-competitive behaviours

exist to a significant degree in MED5 markets and that competition laws remain ineffective so far in dealing with such cases (Geradin and Petit, 2004). In the case of Morocco, the ENP Progress Report shows that there is lack of progress in the area of competition policy alignment with EU *acquis*. Certainly, with the diversity of economic structures in MED5, the wide gap between their laws and that of the EU, and the huge differences existing among MED5' laws themselves, there appears to be disagreement pertaining to the rationale of full harmonization with EU competition law provisions particularly for MED5 with no prospects for becoming EU members (Geradin and Petit, 2004; Ghoneim et. al, 2007). Even though, the case of harmonization in terms of competition laws of MED5 with EU competition law is not fully convincing for many MED5 either due to different laws adopted or due to different status of development, or due to lack of human and technical capacity, there appears to exist a room for cooperation and technical assistance. Also in the case of state aid MED5 argue that given the varying degrees of economic development between MED5 and EU they are not necessarily in favour of full harmonization of regulations pertaining to state aid (Ghoneim et. al, 2007).

The cooperation between EU and MED5 in the field of competition policy can include signing positive and negative comity agreements between MED5 and EU competition authorities. Comity agreements describe a voluntary policy calling for a country to give full and sympathetic consideration to other countries' important interests while making decisions concerning the enforcement of its own competition laws. Comity agreements remain voluntary, and imply that another country's interests will be considered. "Negative comity" involves a country's consideration of how it may prevent its law enforcement actions from harming another country's important interests. "Positive comity" involves a county's consideration of another country's request that it open or expand a law enforcement proceeding in order to remedy conduct that is substantially and adversely affecting another country's interests (OECD, 1999). The EU has already signed positive comity agreements with other countries as the US and hence it can start gradually by applying comity agreements with MED5.

### **Measures Suggested for Further Collaboration between EU and MED5**

- Seek for an agreed upon definition of state aid that takes into account the differences in economic development, social and political structures between the MED5 and the EU. For example, the flexibility regarding block exemptions for regulations currently adopted by the European Commission should be extended to MED5 and could cover issues as basic education, mass transportation, and other areas of concern to MED5.
- Enhance the capacity building of competition authorities in MED5 and the information databases they can use to ensure effective implementa-



tion of competition laws and regulations (in terms of data, human capital, and means of fast and accurate investigations).

- Ensure that the de minimis regulation applied by the EU fits the developmental considerations of MED5. Such agreement would enhance the chances of compliance.
- Introduce new forms of cooperation (positive and negative comity agreements among EU and MED5 competition authorities.
- Ensure that there is progress made by MED5 to implement the competition related articles in the Association Agreements.
- Investigate new potential for cooperation among sectoral regulators between the EU and MED5 and among MED5.
- Finally, among the areas that do not appear extensively in the EU documents reviewed (action plans and progress reports) and that should receive more attention is the cooperation among sectoral regulators in areas such as public utilities and telecommunications. In this regard cooperation in terms of twining projects (where currently some are already in place) could be expanded. The main emphasis here could be on the transfer of EU knowledge and expertise in managing such sectors (e.g. electricity, water, and telecommunications) to MED5.

## **5.6. Government Procurement**

In *Egypt*, government procurement is governed by "The Tenders Law No. 89/1998". Law 89/1998 governs the government's procurement by all civilian and military agencies (ministries, departments, local government units, and public and general organizations), unless they are excused from this law. Law 89/1998 replaced Law 9/1983 and stopped negotiation of bids after bid opening, confirmed the need to state the reason for cancelling a bid, and ensured refunding of bid bonds upon expiry of validity of tender (public sector firms and cooperatives are exempted from bid bonds). Law 89/1998 provides a preference of 15% for Egyptian bidders, with the exception of bids related to Ministry of Defence which following a special procurement memorandum of understanding allows Egyptian and American on equal terms in both Egyptian and American bids. Bribery and fraud annuls the contract, disqualifies the bidding firm, and confiscates the bid. Among the negative aspects of the Law 89/1998 is that the decision-making committees on the bid have no time limit to meet, make, and announce their decision. Egypt has no central procurement body; each department has its own procurement com-

mittee, which examines its tenders and practices. If the value of the bid/contract is above a certain threshold, representatives of Ministry of Finance and Council of State should be members of technical and financial committees and be present when opening the envelopes. The General Authority for Government Services (GAGS) controls the contracts to ensure that the prescribed guidelines and directives are followed. GAGS may provide technical assistance and training to departments or procurement units. It may also represent the Ministry of Finance in procurement committees. Egypt is not a member of the WTO Government Procurement Agreement. Bids exceeding a certain threshold must be tendered, however there are exceptions including emergency.

*Israel* is a member of the WTO Government Procurement Agreement (GPA). Public procurement is governed by Mandatory Tenders Law (5752, 1992). In cases where purchases are not subject to provisions of the GPA, Israel provides a price margin preference for local suppliers (15%) in addition to extra 5% for domestic suppliers located in priority development areas. Moreover, even when implementing GPA Israel can offset 20% of the contract. Procurement exceeding a certain threshold must be tendered; however as in the Egyptian case there are exceptions for tendering including national security, emergency, and continuation of a contract. The WTO TPR (2006) identifies that exceptions have been used extensively. Moreover, all international public tenders exceeding a specific threshold must include a clause on "industrial cooperation" (IC) with Israeli entities in the amount of at least 35% (30% in tenders covered by the GPA) of the value of the contract. To satisfy the IC offset requirement, a foreign supplier can subcontract to local companies, invest in local industries, undertake a know-how transfer, or acquire goods made in Israel or from work or services performed in Israel. Israel applies bid bonds.

*Jordan* applied for accession of GPA in 2000 and since 2003 has been negotiating accession and amending its law accordingly. Government Works By-Law No. 71 of 1986 and Supplies Act No. 32 of 1993 govern government procurement in Jordan. The two central government entities implementing these regulations are the Government Tenders Directorate of the Ministry of Public Works and Housing, and the General Supplies Department of the Ministry of Finance. However, municipalities' procurements are governed by another law (Administration of Rural Councils' Law No. 5 of 1924 and Municipalities and Rural Council Supplies and Works Regulation No. 55 of 1989). There are specific tender regulations for a number of geographical areas and government entities. Tenders are mandatory if bids exceed a certain threshold. Foreign bidders need to have a local partner. Jordan does not have any international decision regarding government procurement with the exception of its FTA with the US which grants national treatment to US firms.

In *Morocco*, government procurement is governed by adopting Decree No. 2-06-388 adopted in 2007 which replaced Decree No. 2-98-482 on government

procurement which entered into force on 1 July 1999. The law applies to government agencies and municipalities. There is no central procurement agency in Morocco. In all tenders, representatives from the control bodies including the Control of State Spending Commitments (CED), the Inspectorate General of Finance (IGF), the General Treasury and the Department of State Entities and Holdings (DEPP), which all come under the Ministry of the Economy and Finance, must be present. The Moroccan law allows preference of maximum 15% price premium for domestic suppliers. In the Moroccan law, contrary to the Egyptian law, specific deadlines are set to undertake decisions on bids. Morocco does not have any international agreements related to the government procurement with the exception of its FTA with the US which grants national treatment to American firms. Morocco is not a member of GPA.

Government procurement is handled in *Tunisia* by a number of governmental decrees including Decree No. 2002-3158 of 17 December 2002 regulating government procurement, as amended and supplemented by Decree No. 2003-1638 of 4 August 2003, and Decree No. 2004-2551 of 2 November 2004. Tunisia is not a member of GPA and has no international agreements. There are several ways (limited tender, open tender, negotiations) that can apply for bidding. It is not clear which way is applied. In other countries, it was either the law that identifies which way can be applied, or if a certain threshold is passed, then open tender should be applied. In the case of Tunisia, it is not clear and as it seems the way is determined by discretion. Preference for local goods (10%) is allowed, and foreigners when invited have to subcontract Tunisia firms. In Tunisia there are several commissions which control the public procurement procedures. Moreover, there is The Higher Contracts Commission which follows the Prime Minister's office.

The above review identified several issues related to MED5, namely; there are some similarities among some of their rules and governing bodies, but they are far from being identical in all respects. They certainly differ from EU procedures; they grant preferences for domestic suppliers, and EU might face discrimination in some of the countries which have specific bilateral agreements with third countries as the case of Morocco and Israel with the US. The harmonization of procurement rules of the MED5 with those of the EU are complicated by the fact that harmonization of these procedures in the EU is not yet complete, Furthermore the EU itself grants exceptions for some sectors (e.g. sector specific government procurement directives as utilities directive N° 2004/17/EC).

As indicated in the WTO TPRs of MED5 Egypt, Morocco, and Tunisia do not have the intention to join GPA. All MED5 encounter problems associated with bidding procedures, especially when foreigners are included, and with transparency issues. Both the EU and the US (in the case of Morocco and Israel) market

access reports have identified the same barriers related to transparency and procedures of bidding procedures.

### **Measures Suggested for Further Collaboration between EU and MED5**

- An alternative to reaching a regional agreement with respect to government procurement would be to aim at sectoral and bilateral agreements between the EU and the MED5. This could take into account the sensitivity of some sectors in particular countries.
- Transparency could be enhanced by clarifying the criteria for using exceptions to open tenders; defining a time limit to reach decisions. The EU could strive to obtain the same rights granted to American firms under the different FTAs, memorandum of understandings, and offset agreements in their trade negotiations with MED5.

## **5.7. Intellectual Property Rights**

All MED5 have adopted legislations that are in compliance with TRIPS. However, all MED5 have problems with the enforcement of IPR laws and regulations and/or weak provisions in some of their legislation that at times make them non-compliant with TRIPS. MED5 have amended their laws in an effort to be compatible with TRIPS, however as reports of main trading partners indicate there are some loopholes in the laws as indicated by US and EU in the case of Israel in terms of data exclusivity and for Egypt as reported by US in case of pharmaceutical patents.

While some MED5 have adopted new comprehensive law (e.g. Egypt Law 82/2002) tackling all types of IPR, other MED5 have separate legislations for different aspects of IPR. There is no main unique institutional setup for protection of IPR in MED5 where the authority of dealing with each field of IPR falls under the jurisdiction of the relevant ministry of governmental agency. All MED5 have started some kind of training courses for judges and prosecutors especially devoted to IPR. The system of choosing judges being responsible for IPR differs significantly among MED5. Moreover, training to enforcement agencies of the law such as the police and custom authorities is not enough or not effective, and there is weak public awareness among consumers on IPR related measures.

The IPR legislation pertaining to MED5 is highly similar, since they follow TRIPS, but variations exist. For example, in the MED5 patents are generally granted a 20 years protection, however Egypt differentiates between long-term patents which are granted 20 years and short-term patents which are granted only 7 years. Trademarks are granted 10 renewable years, with the exception of Morocco

which grants 20 renewable years. Industrial designs years of protection vary significantly among MED5 where Israel and Tunisia apply a minimum of 5 years and Morocco applies a maximum of 25 years. The copyrights protection is highly similar where all of the MED5 grant protection for the author's life plus 50 years and Israel applies a longer protection of 70 years. Moreover, the jurisdictions concerned with application of the law differ among MED5 where civil courts are responsible in all MED5, however some of them have specialized courts as Morocco while other have criminal and administrative courts as Israel, Tunisia, and Jordan (and Egypt in the case of administrative courts).

Moreover, not all MED5 have adhered to TRIPS plus types of international agreements (as those stated in Table 15) to which most of the EU countries have signed (with the exception of Madrid Agreement and Protocol).

Table 15 below shows the status of the different TRPS plus agreements to which at least most of the EU 15 countries have signed, and the status of the MED5 in this regard.

**Table 15. Status of MED5 in relation to TRIPS plus Agreements**

	<b>Egypt</b>	<b>Israel</b>	<b>Jordan</b>	<b>Morocco</b>	<b>Tunisia</b>
PCT	Y	Y	N	Y	Y
EPC	N	N	N	N	N
Strasbourg Agreement	Y	Y	N	N	N
Madrid System (Agr/Prot)	Y/N	Y/N	N/N	Y/Y	Y/N
Nice Agreement	Y	Y	Y	Y	Y
Hague Agreement	Y	N	N	Y	Y
Locarno Agreement	N	N	N	N	N
Berne Convention	Y	Y	Y	Y	Y
Paris Convention	Y	Y	Y	Y	Y
UPOV	Y	Y	Y	Y	Y

### **Measures Suggested for Further Collaboration between EU and MED5**

The EU could assist MED5 in reducing the circulation and trafficking of counterfeit/pirated goods and improve their compliance with TRIPS. This could involve:

The EU could assist MED5 in reducing the circulation and trafficking of counterfeit/pirated goods and improve their compliance with TRIPS. This could involve:

- Providing technical assistance to strengthen the capacity of SMC to monitor violations of TRIPS provisions, and enhance their enforcement capabilities including upgrading of courts and judges responsible for handling TRIPS related cases, while ensuring that strengthening such measures will not have negative repercussions from the social aspect of

MED5 as increasing prices of essential goods as medicine and basic educational copyright products.

- Providing technical assistance to ensure compatibility with TRIPS in areas where MED5 still adopt non-complying measures. For example, the review of the US and EU reports identified that some MED5 still have loopholes in their national laws regarding their conformity with TRIPS including for example issues of pharmaceuticals data in Israel, and patents and trademarks in Jordan, despite the efforts undertaken to comply with TRIPS<sup>39</sup>. EU assistance in amending national laws is certainly needed; especially that in general foreign assistance in this field has been dominated by the US.
- Initiate or improve the cooperation between the various national bodies in SMC responsible for IPR enforcement. Such initiative could be undertaken in a regional context as the issues faced by MED5 in fighting counterfeit and pirated products are likely to be similar.

### **Main Urgent Areas of Cooperation between EU and MED5**

This review of NTBs prevailing between EU and MED5 identified main areas for intervention and support by the EU to MED5. The nature of support differs where in some cases technical and financial assistance is highly needed to strengthen the capacity of MED5 as in the area of standards and SPS measures. Areas of standards and SPS measures require more technical and financial assistance to upgrade the level of conformity assessment procedures and infrastructure. This will enable MRAs to be concluded and hence will enhance the market access of MED5 products in the EU with a higher degree of trust.

In some areas there is a need of EU assistance to enhance South-South trade among MED5. The assistance can take the shape of ensuring that MED5 comply with policies and regulations that are in line with their WTO obligations or EU Association Agreements when trading with each other. EU can assist by helping MED5 establish some monitoring mechanisms for NTBs affecting their intra-regional trade. To enhance intra MED5 trade there is a need to establish an incentive to encourage MED5 to cumulate rules of origin. To be able to establish such mechanism, which can take the shape of more flexible rules of origin than Pan European rules of origin as an incentive for Agadir countries to cumulate, a study identifying the potential advantages need to be undertaken on a sectoral basis.

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<sup>39</sup> For example, Jordan joined both Vienna Agreement and Budapest Treaty, and both entered into force in November, 2008.

## 6. Business Perception Survey<sup>40</sup>

### 6.1. Objective of the Survey

In this section we present the results of the business perception survey conducted in the 5 MED countries and the EU. The objective of this survey is to gain insight into how key business representatives perceive the Euro-Mediterranean trade and investment relations, not only in its current state but also in the future.

The business perception analysis evaluated **four** main areas.

**First**, it determined to what extent business representatives are aware of the existence of business opportunities offered by the Association Agreements and the Euro-Mediterranean partnership.

**Second**, it established what business representatives (from the 5 Mediterranean countries under examination and from the main EU trading partners) perceive as the main strengths and weaknesses of the Euro-Mediterranean FTA in promoting high levels of trade and investment relations.

**Third**, the analysis assessed the existence of effective systems of consultation and dialogue between business representatives and trade policy makers and,

**Finally**, it evaluated the way in which socio-cultural dynamics positively and negatively affected Euro-Mediterranean trade relations.

Ultimately, the purpose of this survey, together with the analysis from Part 1, is provide input into the next chapter on policy recommendations on how to proceed with Euro-Mediterranean trade partnership's overall objective: establishing a deep Euro-Mediterranean Free Trade Area by 2010.

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## **6.2. Methodology**

In order to achieve the above mentioned objectives of the business survey, we followed a two-step methodology. The first step involved face-to-face interviews where the interviewer conducted a semi-structured questionnaire including open-ended questions. The aim of the face-to-face interviews was to capture the respondents' opinion on the Euro-Med trade and investment relations by allowing them to answer freely. The advantage of face-to-face interviews is that it allows the respondent to concentrate on what they think is the most important aspects of the Euro-Med FTAs albeit in greater detail than in a multiple choice questionnaire. The second step involved conducting a questionnaire with several multiple choice questions and a limited number of open-ended questions. The answers from the face-to-face interviews were used to refine the questionnaire used in the second step<sup>41</sup>. The face-to-face interviews also gave the interviewer the opportunity to assess whether the questions were clear to the respondent or needed further probing or not.

The survey targeted two sets of businesses<sup>42</sup>:

- Domestic and foreign businesses located in the 5 MED countries with substantial trade and investment activities in the Euro-Med region;
- European businesses located in Europe and having trade and investment relationships in the MED countries under investigations but not located there.

These two sub-samples are complementary since they allow evaluating the perceptions of businesses already involved through minority and/or majority holdings and through extensive import and export activities in the 5 MED countries and others European trade/investment partners not having necessarily opted to have presence in the 5 MED countries. Business representatives were selected from the sectors based on the sector's representativeness of the country in question and also on the results from Phase 1. In the EU, the survey was conducted with Italian, German and French companies as these companies are the top traders (in terms of exports plus imports value) with the MED5.

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<sup>41</sup> Due to time constraints, the face-to-face interviews and testing of the questionnaire was done almost simultaneously by allowing feedback from face-to-face interviews to the questionnaire design.

<sup>42</sup> Although in principal we did concentrate on exporters from both the EU and MED5, in Tunisia some importers also offered to share their experience with NTBs in Tunisia while importing. We included their responses in the table from the EU and specified them in italics.



After the questionnaire design was completed in consultation with colleagues (working on Phase 1) and the commission it was sent out to government officials, academics, industry representatives and business representatives for comments and pre-testing. With the feedback received from various parties the questionnaire was finalized and field work commenced simultaneously in MED5 countries and the EU. After the first few consultations it became clear that translation into several languages was required to increase the response rate, hence the questionnaire was translated into French, Italian, German and Arabic. As several EU business representatives felt more comfortable in answering the questionnaire at their own time, the questionnaire (in English and German) was also programmed to be available online.

### **6.3. Survey Design and the Questionnaire**

After the pre-testing of the questionnaire, contacts were made with the relevant business representatives that were identified in the sample selection phase as the ‘key’ business representatives. In order to draw up a representative sample in the MED5 and the EU, an exhaustive list of information points, such as embassies, trade representations, local industry associations, chambers of commerce (including mixed and bilateral) and trade and investment promotion agencies, were contacted. In some cases, we were given a list of companies actively trading or investing in the Mediterranean or in the EU (such as the ANIMA, ICE for Italian companies, Industrial Modernisation Centre for Egypt, CGEM for Morocco). However, especially in the case of the EU companies, we were refused to be given a full list of companies due the local privacy laws, in which case we had to ask for the cooperation of the local industry associations to promote the study. Although this prevented us from drawing a *random* sample in its true sense (as we did not have access to the population), we had responses by all key business representatives from the most relevant industries as identified in Phase 1<sup>43</sup>. Hence, in the next section for the analysis of the responses we rely on descriptive statistics.

#### **The Questionnaire**

As per the requirements of the commission for this study, the questionnaire was designed in two parts. In Part A, the questions are designed to assess the aware-

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<sup>43</sup> In the EU, our sample has a healthy mix of large, medium and small size companies.

ness about the Association Agreement, as well as the perceptions on its strengths and weaknesses. In Part B, the questions are designed to assess existing non-tariff barriers. In addition, three separate questionnaires were prepared: one for exporters of goods, for services and another one for investors<sup>44</sup>.

### Box 1. Outline of the questionnaire

#### *Identification of the Respondent*

##### PART A:

Perceptions of Key Business Representatives on the Association Agreement

##### PART B:

Barriers to Trade: Evaluation of Non-Tariff Barriers (NTBs)

Section 1: Technical regulations, standards and conformity assessments

Section 2: Sanitary and Phyto-sanitary Standards

Section 3: Customs Regulation

Section 4: Rules of Origin

Section 5: Trade in Services

Section 6: Intellectual Property Rights

Section 7: Competition Policy

Section 8: Public Procurement

The questionnaire was introduced to the potential respondents by an introduction explaining the aim and purpose of the study and an official **cover letter** provided by the DG Trade to assure legitimacy. The cover letter explained in detail the scope and purpose of the questionnaire, as well as a clear statement of the research purpose, an offer to share findings, a promise of confidentiality and anonymity.

#### Identification of the respondent (*Screening*):

The aim of this section is to establish the identity of the respondent. It is important that the questions are answered by the person ‘most knowledgeable’ in the business contacted. For this reason, the sampling unit is going to be the individual in his or her organizational capacity: Thus, the ‘key informant’ method was used where the views expressed by the respondent can be assumed to represent organizational views. In the introduction letter, the respondents were encouraged to check with others when completing the questionnaire, or to pass the questionnaire to others if they do not feel qualified to accurately answer the questions. The experience indicated that in SMEs it is common to have one person dealing with all the export processing information while in large companies there are different departments responsible for marketing/sales and customs/rule of origin, for example. The division of labour especially in large companies in the EU increased the

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<sup>44</sup> The full questionnaires are available from the author on request (contact [selen.guerin@ceps.eu](mailto:selen.guerin@ceps.eu)).

response time from key traders/investors. In this section the respondent was categorized according to the goods and services that account for the majority of their trade, if they trade in several different product categories. The sample of respondents includes business representatives who are either actively trading with the EU/MED5 countries or are interesting in doing so in the near future.

### **Part A: Perceptions of Key Business Representatives on the Association Agreement**

The aim of the questions in this section, and in other sections in general, are to determine 1) knowledge about the Association Agreement and the business opportunities it provides 2) opinions of the business representatives on the strengths and weaknesses of the Association Agreement 3) perceptions on South-South integration 4) the role for the EU to promote South-South integration.

### **Part B: Barriers to Trade: Evaluation of Non-Tariff Barriers (NTBs)**

In each of the eight sections, the questions were designed to assess the existence of non-tariff barriers and beyond the border barriers. The respondents were first asked about their knowledge on the existence of a non-tariff barrier in their specific industry in their most significant export market. Second, they were asked to identify the specific problem and how they think this problem can be rectified. The final question in each section was designed to assess respondents' opinion about the 'harmonization with the *acquis*'.

## **6.4. Results of the Business Perception Survey**

In this section we will present the results of the questionnaires in each MED5 country (Egypt, Tunisia, Morocco, Israel and Jordan) and the EU in two parts: Part A: Perceptions on Association Agreements and Part B: NTBs.

The total number of companies contacted in the MED5 sample is 468 (Egypt - 56, Israel - 35, Jordan 20, Morocco - 85, Tunisia - 272), while the final number of companies that participated in the business survey is 176, reaching a response rate of 37.6 percent. Out of those, 66 companies are SMEs (i.e. 37.5%), whereas the rest – 110 companies (i.e. 62.5%) fall into the category of large companies. Finally, we also contacted various Industry Associations operating in different sectors of activity both at the national and bilateral (e.g. Egypt-French Chamber of Commerce) level. In particular, the total number of respondents among them amounts to 14. Therefore once that those questionnaire are added up to the previous total of 176, the amount of responses for the MED5 sample that have been (eligibly) considered add up to 190.

**Table 16. Company size in the MED 5 sample**

	Egypt	Morocco	Tunisia	Israel	Jordan	Total MED	
						Nr of companies	%
SMEs	0	18	42	6	0	66	37.5
Large	20	53	18	14	5	110	62.5
<b>Total</b>	<b>20(*)</b>	<b>71</b>	<b>60(**)</b>	<b>20(***)</b>	<b>5</b>	<b>176</b>	<b>100.0</b>

Note. (\*) out of 24 total respondents: 4 replies came from industry associations/government. (\*\*) out of 68 total respondents: 1 questionnaire was judged not eligible due to the fact that the company stated that its main business partners are countries outside Europe and the other 17 companies reported to be importers from EU countries, therefore their replies were considered in the EU NTBs tables. Finally, 7 replies were from industry associations/government. (\*\*\*) out of 23 total respondents, 3 responses come from industry associations/government.

As for the EU sample, the total number of companies contacted is 294 (Italy – 135, France – 70, Germany - 89), while the final number of companies that participated in the business survey is 39, reaching a response rate of 13.26%. As it can be seen from the table below, 13 companies are SMEs (i.e. 33.3%), whereas the rest – 26 companies (i.e. 66.7%) fall into the category of large companies. Finally, we also contacted 41 Industry Associations operating in various sectors both at the national (33) and European level (8). The total number of non-business respondents is 4 (i.e. from the textile and services sector). Therefore the total amount of responses for the EU sample amounts to 43.

**Table 17. Company size in the EU sample**

	Total EU	
	Nr of companies	%
SMEs(*)	13	33.3
Large	26	66.7
<b>Total</b>	<b>39</b>	<b>100</b>

Note. (\*) Among the SMEs reported 4 companies out of the total number of 13 are investors, whereas the number of large investors companies is 2.

## Results of the Business Perception Survey

### Part A: Perceptions of Key EU and MED5 Business Representatives on the Association Agreement

Below is a summary of the responses of both EU and MED5 business representatives on the perceptions of the Association Agreement between the EU and the Mediterranean countries. In general it appears that there is inadequate knowledge of the specifics of the AAs from European companies. In fact, among those business

representatives that answered this question, about 56 % of companies are not aware of the AA. Roughly half of the respondents that indicated that they were not familiar with the Association Agreement (AA) were SMEs. Those large companies that did not know about the AA were either in the services industry and/or were companies where their major markets were other than the Mediterranean region. In contrast, the vast majority of MED5 companies interviewed and operating in the Southern Mediterranean area are aware of the AA. Specifically, we can see that on average roughly 80% of the companies replied positively to this question.

In addition to the reasons offered above, cultural differences in doing business were also raised during face-to-face interviews as an explanation for EU's lack of business interest in the Mediterranean region hence lack of knowledge of the AAs.<sup>45</sup> In general responses of the EU companies/industry associations/chambers of commerce point out a clear cultural differentiation between the experience of the French and Italian companies versus German companies. While for the former two doing business in the Mediterranean countries is relatively easy, German companies find it culturally difficult. Besides the apparent language difficulties that they face in those countries, German companies often find it difficult to establish business links in the Mediterranean. So much so that several authorities interviewed reported that in general German companies trade or invest in the Mediterranean through their subsidiaries or affiliates in France (e.g. Beiersdorf (Nivea) and BASF). They added that France has the advantage of both sharing a historic/cultural background and established links for trade finance with the Mediterranean. Especially, trade finance seems to be a crucial determinant of the decision-making process for the EU companies whether to do business in the Mediterranean or not. For example, Italian banks have already established branches in Egypt, Tunisia and Morocco to assist Italian companies in their internationalization process, as well as providing traditional banking services. This may alone explain the strong presence of Italian companies trading and investing in the Mediterranean. As several respondents indicated that cultural differences of doing business in the Med region can be circumvented by having a local partner, lack of trade finance has to be still tackled through further services liberalization in the financial services sector (see section on Key sectors for a further discussion on barriers to invest). Nevertheless, almost 44% of the EU respondents reported positively that their companies benefited from the AA. The rest of the companies replied either that they were not benefiting from it or that they were not sure whether their company benefited as a result of the AA or the GATT, for example. In the face-to-face interviews the respondents reported that the Association Agreements' impact has

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<sup>45</sup> The face-to-face interviews with the European companies and industry associations were carried out in Brussels and Berlin.

been limited. They pointed out that although there is increased investment flow especially in automotive business (e.g. cables produced in the MED5 and delivered back to Germany) in Tunisia and Morocco within the framework of Pan-Euro-Med system of diagonal cumulation of origin, this cannot explain all the increase in FDI/trade. It is also partially because of the geographical proximity of these countries to the EU. The respondents indicated that the reason why the Association Agreements had so far only a limited impact was because they are perceived as highly political agreements. Concern for the lack of implementation of the Association Agreements was also raised not only by German industry associations but also other European services sectors.

In general, as can be seen from Table 18 the EU business believes that low level of South-South integration in the Mediterranean is one of the weaknesses of the Euro-Mediterranean trade relations and do believe that AGADIR could be the solution to this problem. The respondents to the face-to-face interview indicated that AGADIR did not yet have a positive impact on South-South integration because it is perceived to be a highly politically-initiated tool that has not been enforced by the EU. That is why it has not been immediately implemented by the countries themselves and there are still problems in practice (for instance - now solved - about the export of Dacia Logan from Morocco to Egypt). In addition, even if AGADIR were fully implemented, the respondents do not think it guarantees a real regional integration unless other Mediterranean countries join AGADIR as well. The EU business however strongly supports EU's role in promoting further economic integration within the Mediterranean region. The respondents suggested that the EU should encourage more trade and investment forums to facilitate B2B development.

In general knowledge about the Association Agreement (AA) is very high in Morocco: among those respondents who answered Q1, 95% reported that they were familiar with the AA. The majority (73%) of the respondents stated that their businesses did benefit from the AA. Those respondents that said they did not benefit from the AA were mainly from the services or agriculture industry and small/medium size enterprises. Regarding questions on South-South integration, there is high support among Moroccan respondents: 89% of the respondents perceive lack of regional integration within the Mediterranean region as one of the weaknesses of the Euro-Mediterranean trade relations, and 74% believe that AGADIR agreement can tackle this weakness. There is also strong support among the Moroccan business community for the role of EU in the region: 65% of the respondents think that the EU can promote further South-South integration in the region. Moroccan business representatives think that the EU can use diplomatic pressure to promote South-South integration. Many said that the EU should be more involved to settle political problems in the region. Others indicated more pragmatic approaches to

solve the South-South integration problem such as promoting investment and financing of projects in the region, increasing competition among southern partners.

**Table 18. Association Agreement perceptions by EU and MED5 countries**

Question		Q1.Are you familiar with the Association Agreement?	Q2.Did your company benefit from the Association Agreement?	Q5.Do you believe that lack of regional integration within the Mediterranean region is one the weaknesses of the Euro-Med trade and investment relationship?	Q6.Do you believe that the AGADIR agreement (known also as Arab-Mediterranean Free Trade Agreement) can have a positive impact on Euro-Med trade and investment relations?	Q7.Do you think the EU can help promote further economic integration within the Mediterranean region?	
MED countries (%)	YES	EG	55.0	35.0	65.0	75.0	75.0
		IL	90.0	69.0	31.6	10.5	31.6
		MA	95.8	74.7	80.3	71.8	64.8
		TN	86.0	65.9	63.4	53.7	82.9
	NO	EG	30.0	35.0	10.0	-	5.0
		IL	10.0	15.0	15.8	10.5	10.5
		MA	2.8	18.3(*)	8.5	8.5	12.7
		TN	14.0	31.0(*)	24.4	12.2	9.8
	DK	EG	-	5.0	5.0	5.0	-
		IL	-	15.0	52.6	73.7	57.9
		MA	-	4.2	4.2	9.86	11.3
		TN	-	-	12.2	34.1	7.3
	Tot. Nr. of companies	EG	17	15	16	16	16
IL		20	20	19	19	19	
MA		70	69	66	65	66	
TN		43	42	41	41	41	
EU countries (%)	YES	35.9	18.0	43.6	41.0	64.1	
	NO	56.4	15.4	23.1	20.5	20.5	
	DK	2.6	48.7	23.1	28.2	5.13	
	Tot. Nr. of companies	37	19	35	35	35	

Note. (\*) out of 13 companies which replied NO, 9 belong to the services sector for Morocco whereas 7 of them further declared they are off shore companies operating in the textile sector. The companies which reported that they are not benefiting from the AA in Morocco, further reported that the reason for it is lack of communication and spread of information by EC to Southern Mediterranean countries, hence companies.

Out of 20 Egyptian companies that responded to the survey, a majority (68%) reported that they were familiar with the EU-Egypt AA. On the other hand only slightly more than half of the respondents thought their business had benefited from the AA. Some of those respondents who indicated that they did not benefit from the AA were potential investors/exporters. The respondents indicated that they believed that the lack of regional integration in the Mediterranean region is a weakness of the Euro-Mediterranean trade relations and that AGADIR agreement-if properly implemented can have a positive impact on Euro-Med trade relations. About 80% of the respondents indicated that the EU should play a role in promoting further economic integration in the region. Some of the respondents indicated that the EU can contribute to economic integration in the region by offering incentives based on the degree of integration. The EU is expected to provide more motivation for Mediterranean countries to join AGADIR, convincing them that AGADIR is good for regional integration. The business representatives wish to see Lebanon, Algeria and Syria also join AGADIR. On the other hand it is also mentioned that the full implementation of the current AA is important.

Tunisia, being the first country to sign the AA with the EU among MED5, has a very high rate (87%) of knowledge about the EU-Tunisia AA among its business community. A large majority (71%) of respondents report that their business benefited from the AA. Among those respondents who reported not having benefited from the AA, there does not seem to be any pattern across sectors or firm size. Business from agriculture, electrical, automobile, textile and cosmetic firms are among those that report not having any benefits from the AA. As in the other MED5 countries the respondents in Tunisia also agree that lack of regional integration is one of the weaknesses of the Euro-Mediterranean trade relations. Although south-south integration is seen as a problem by 65% of the respondents, support for AGADIR is only around 54% as several respondents indicated either they did not think AGADIR can have a positive impact on Euro-Med relations or they did not have an opinion on this question. Nevertheless, 90% of the respondents gave full support to the EU for promoting economic integration in the region. Respondents suggest that the EU should be more involved in south-south integration by using its economic and cultural power. It was also mentioned that the EU can help by assisting Southern countries in the harmonization of their transit/customs/banking systems, in conformity with the European system. The current systems are archaic and rigid, controls and requirements (documentation, norms, compliance, payments) are exaggerated. Another way EU can promote south-south integration can be through harmonization of different AAs signed in the region. This may facilitate administrative procedures, increase trade with the MED, bring more funds, training and best practices.



In Israel, 90 percent of the respondents noted knowledge of the EU-Israel Association Agreement and among those 69 percent of the companies indicated that their company benefited from the agreement. The majority of Israeli companies (56 percent) did not know whether lack of South-South integration was one of the weaknesses of EU-Mediterranean trade and investment relations or not. As Israel is not part of AGADIR, 74 percent of the respondents indicated no knowledge of improved South-South integration due to AGADIR and only 32 percent of companies see a role for the EU to promote integration in the Mediterranean.

**The Perceptions on Strengths and Weaknesses of the Association Agreement**

The respondents that replied positively to having familiarity with the Euro-Med Association Agreements (Q1) were asked further about their opinion on the strengths and weaknesses of the AA (Q3 and Q4). As the respondents were allowed to cite more than one strength and/or weakness the columns do not add up to a 100 percent.

**Table 19. EU and MED5 perceptions on Strengths and Weaknesses of the Association Agreement, %**

	MED countries				EU countries
	EG	IL	MA	TN	
<b>Strengths</b>					
a. Reduced cost of doing business due to tariff/quota elimination	55.56	90.91	88.89	90.00	40.00
b. Better information sharing	33.33	9.09	20.00	13.33	-
c. Availability of export/import credits	-	-	31.11	3.33	-
d. Increased business opportunities	-	18.18	55.56	26.67	60.00
e. Benefited Export promotion	22.22	18.18	20.00	16.67	40.00
f. Industry cooperation	22.22	9.09	28.89	13.33	-
g. Technical cooperation	55.56	9.09	46.67	16.67	-
h. Investment attraction	22.22	9.09	31.11	13.33	-
i. Reduced cost of doing business	20.00	18.18	-	-	-
j. Fund for technical aid	-	-	-	6.67	-
<b>Weaknesses</b>					
a. Tariff /quotas elimination not complete	42.86	23.08	63.46	3.85	37.50
b. Industry closed to investment	7.14	-	15.38	-	-
c. Significant non-tariff barriers (complexity, bureaucracy, etc...)	28.57	30.77	26.92	76.92	50.00
d. Lack of implementation of IPR rules	14.29	-	5.77	11.54	0.00
e. Cumbersome customs procedures	7.14	7.69	19.23	30.77	12.50
f. Lack of information about business opportunities	35.71	23.08	34.62	23.08	0.00
g. Lack of export/import financing	42.86	7.69	30.77	11.54	0.00
i. There is none	14.29	23.08	7.69	3.85	0.00

	MED countries				EU countries
	EG	IL	MA	TN	
j. Lack of political enforcement from EC to ensure commitment of Agadir countries' signatories	-	-	-	-	12.50
k. No measure is taken to grant fair competition in the market (ex. Chinese federation is subsidizing exports (17-19%) and then 4% tariff is no barrier at all for them and this creates unfair competition for countries other than China)	-	7.69	-	3.85	-
l. Cultural barrier ("Made in Israel" certification)	-	15.38	-	-	-
m. Difficulties to access the EU market: public procurement issue	-	-	-	3.85	-
n. Temporary movement of natural persons: difficulties in obtaining visa	-	-	-	3.85	-

Note. Percentage relatively two companies expressing perceptions about the AA.

In terms of the strengths of the Euro-Med AA, the EU business representatives think that reduced cost of doing business due to tariff/quota elimination and increased business opportunities are the most important achievements of the AA. On the other hand, the existence of significant non-tariff barriers (NTBs) and uncompleted tariff/quota elimination schedules are among the most mentioned weaknesses of the AA. This can be clarified quoting one of the responses: *"although the tariffs and quotas are low, the existence of quantitative barriers represents a high bureaucratic constraint to the businesses which are both time-consuming and costly"*. According to the responses of the EU businesses, although the AAs have increased business opportunities, there is still considerable lack of information about opportunities among the business community. Cumbersome customs procedures in MED countries are mentioned as weaknesses that could be dealt with by organizing specific agreements on electronic data exchange for customs purposes like the NTCS in Europe. Several respondents mentioned that the EU should try to harmonize customs procedures and offer cooperation. Availability of export promotion, industry and technical cooperation are also mentioned as strengths of the AA. Interestingly, no specific NTB was mentioned as part of the weaknesses of the AA (e.g. no respondent mentioned lack of IPR rules implementation as a weakness). Outdated 'rules of origin' was however mentioned as one of the weaknesses of the agreements (by the textiles and clothing industry). It is also mentioned that the AA is too complicated and hence there are significant information costs for the industries where SMEs are dominant. Finally the political enforcement of the agreement after signature and entry into force among AGADIR countries and

lack of leverage from the DG Trade to ensure commitment to agreed obligations were mentioned as a weakness. Providing the Commission with more leverage with associated governments, dissemination of more information by the Commission on difficulties encountered by different member states to support common actions were suggested as possible ways to rectify these weaknesses.

In the MED5, reduced cost of doing business due to tariff/quota elimination is unanimously declared to be the most important strength of the Association Agreements. An overwhelming majority (94.4%) of the Moroccan respondents sees tariff/quota elimination as one of the most significant strengths of the AA; however, since the elimination schedules have not yet been completed it is also one of the most important weaknesses of the AA. The Egyptian businesses also reported that reduced costs of doing business (mainly due to reduced tariffs/quotas), increased technical cooperation and increased business opportunities are the most important strengths of the EU-Egypt AA. On the other hand, the lack of information on business opportunities and the difficulty in getting export/import finance seem to be the most important weaknesses of the AA. As in Morocco and Egypt, in Tunisia as well, majority of the respondents see tariff/quota elimination (72%) and increased business opportunities (20.9%) among the most significant strengths of the EU-Tunisia AA. Technical cooperation and increased investment attraction were also mentioned among the strengths. Unlike other MED5 countries, incomplete tariff/quota elimination is not among the weaknesses for obvious reasons as the schedule has been almost completed. Instead, overwhelming majority of people indicated that cumbersome customs procedures (67%) and significant non-tariff barriers (58%). Lack of information about business opportunities were also mentioned by some. In Israel 90 percent of the business community think that tariff and quota elimination is the most significant strength of the AA, on the other hand existence of significant non-tariff barriers, incomplete tariff elimination schedules and lack of information about business opportunities are the main weaknesses.

Among the solutions suggested to overcome the above mentioned weaknesses are: facilitating access of companies to relevant information, promoting communication/better communication (decentralizing), creating a supervisory body to oversee implementation of the provisions of the AA, easier customs procedures, increase political support for FTAs, harmonization with EU technical standards and increasing the availability of certification agencies in the region, simplifying rules of origin, more involvement from the private sector in the negotiations. In Egypt, it is mentioned that the EU should raise public awareness of the EU-Med trade agenda, enhance technical and financial assistance to the MED, and proceed to extend its trade liberalization to agriculture, processed food and fisheries. However, the main emphasis has to be in the area of industrial standards and conformity assessment which will facilitate trade by removing non-tariff barriers on in-

dustrial products. As the most important barrier in trade relations between the EU and Tunisia seem to be customs procedures, it is suggested that the procedure be harmonized with the EU and simplified and there should be also more trained customs officials. In order to address TBTs, it is suggested that Tunisia needs more technical and industrial cooperation from the EU. The point of view on the most important reason as to why the AA was not used by Israeli business community was because of strong NTBs. In Israel technical standards, lack of mutual recognition agreements were considered to hamper trade relations. In addition, the cumulation of origin rules with Jordan were difficult to get and Israel still does not have it with Egypt for instance.

### **Part B: Non- Tariff Barriers**

The global trend in reduced tariffs is reflected in the EU-Mediterranean trade relations as well. The Mediterranean countries already have tariff-free access to the EU market in industrial goods as they continue to asymmetrically liberalize their own. One crucial implication of multilateral trade negotiations over the years has been to reduce and cap tariff ceilings. This meant that as tariffs were being dismantled over the world non-tariff barriers appeared as more important barriers to trade. In Phase 1 of this study, data analysis indicated that NTBs in certain sectors may be prevalent in MED5 exports to the EU. However, analysis of data alone does not provide sufficient information about the nature of a non-tariff barrier.

In the second part of the questionnaire, the respondents were asked about the non-tariff barriers that exist in their sector of activity. While they were first asked to rank the NTBs in their sector in terms of importance, later they were asked in detail about the nature of the NTBs, how to remove them and whether to harmonize with the EU *acquis* or not. In the remainder of this section we will report the responses of the European, Moroccan, Egyptian, Tunisian, Israeli and Jordan's companies' account on NTBs. Just as a reminder, the responses of the EU companies refer to the NTBs in MED5, whereas the responses from each of the MED5 countries refer to the NTBs they face in the EU.

### **EU: Non-Tariff Barriers in MED5 as reported by EU business representatives**

#### **Technical regulations, standards and conformity assessments**

The EU business representatives indicated that technical regulations, standards and conformity assessment are a significant non-tariff barrier in several MED5 countries. Of all the eligible respondents 42.1 percent indicated that there are TBTs in their exports to MED5 compared to 47.3 percent who told us their exports were not exposed to any TBTs. The EU respondents reported similar difficulties

due to TBT across all sectors, hence there are no sector specific issues. The answers regarding TBTs can be classified under four specific items. First, many EU respondents complained that MED5 lacked standardization of norms with the EU. Further, the EU business respondents describe MED5 technical standards as a mere regulatory burden, as the procedure is often bureaucratic hence time-consuming, and not transparent. Occasionally, additional labelling and marking were also mentioned as a barrier (specifically in Egypt). When negotiations on ACAA are completed these barriers will most likely be resolved. Environmental standards and regulation in Tunisia were also mentioned as a barrier in the machinery sector. Of the respondents who reported TBTs in their sector, 36.8 percent agreed that harmonization with the EU *acquis* can reduce TBTs.

**Table 20. Technical regulations, standards and conformity assessment in MED5 as reported by the EU business representatives**

<b>Technical regulations, standards and conformity assessments – EU sample</b>	<b>Sectors</b>	<b>Reported country of destination</b>
Lack of standardization with EU norms, regulation and standards	Agri and processed food	Tunisia (*)
	Machinery	Israel
	Automobile and transport equip.	All MED 5 countries in general
	Textile	Egypt
	Chemicals	Tunisia (*) Egypt
	Electronics	Tunisia (*)
	Textile	Tunisia
Bureaucratic/cumbersome procedures in obtaining documents and certifications (time consuming/not transparent procedures and redundant documentation required) – regulatory burden	Automobile and transport equip.	Egypt Morocco
	Chemicals	Tunisia (*)
	Electronics	Tunisia (*)
	Textile	Egypt Morocco
	Machinery	Tunisia (*)
Labelling, marking and packaging (requested in Arabic language)	Agri and processed food	Tunisia (*)
	Chemicals	Tunisia (*)
	Textile	Egypt
	Machinery	Egypt
Technical controls/product testing and product certification	Agri and processed food	Tunisia (*)
	Automobile and transport equip.	Tunisia (*)
	Textile	Egypt
	Chemicals	Tunisia (*)
	Machinery	Tunisia (*)

Note. (\*) Responses from Tunisian importers.

Sanitary and phyto-sanitary standards were only mentioned by few companies as a barrier to trade in agriculture and processed food sector. Problems arise, as with TBTs, mainly due to differences in standards.

**Customs regulations**

In contrast with all the customs reforms that MED5 have undertaken as described in great detail in the previous section on NTBs, problems due to customs regulations was the most commonly mentioned NTB in the MED5, especially in Tunisia.<sup>46</sup>

More so than technical barriers to trade, almost all respondents have complained about one aspect of customs regulations in the MED5. The majority of the problems centred around two issues: lack of trained customs officials, lack of transparency and consistency in the application of regulations, and the complexity of customs procedures. These problems are pervasive in all MED5 countries. In addition to this, additional customs taxes and duties in Israel and Egypt were reported as well. As indicated in the previous NTB section, although it was mentioned that there are extra charges and surcharges applied by the MED5 especially on intra-regional trade, the survey respondents have now confirmed that such charges are also applied on imports from the EU.

**Table 21. Customs regulation in MED5 as reported by the EU**

Custom regulation – EU sample	Sectors	Reported country of destination
Lack of qualification/expertise from the customs personnel(difficulties in communication, rules arbitrarily applied, lack of transparency, problems with languages)	Machinery	Egypt Tunisia (*)
	Textile	All MED 5 countries in general with the exception of Morocco - Incapability of tackling illicit trade (import of fake branded goods and parallel undeclared imports)
	Chemicals	Tunisia (*)
Customs clearance complexity, excessive bureaucracy which causes cumbersome and lengthy procedures	Automobile and transport equipm.	Egypt Tunisia (*)
	Textile	All MED 5 countries
	Chemicals	Tunisia (*) Egypt
	Electronics	Tunisia (*)
	Machinery	Tunisia (*)
Custom taxes/duties/quotas	Automobile and transport equipm.	Israel
	Chemicals	Egypt

Note. (\*) Responses from Tunisian importers.

<sup>46</sup> For Tunisia we have obtained responses both from EU exporters to Tunisia and from Tunisian importers from the EU. Both parties consistently complain about Tunisia’s cumbersome customs regulations.

Despite all the automation and simplification of customs procedures customs clearance days can be sometimes lengthy. Although it is difficult to generalize, as responses change from sector to sector and also from one MED5 country to another, the responses to the business survey indicated customs clearance time ranged between 1-2 weeks.

### **Rules of Origin**

The EU respondents have also reported that rules of origin, with the MED5, were a significant barrier to trade. However, in this case, the issue is more sector specific as can be expected: it is textiles and automobile sector that have given lengthy responses to the questions on rules of origin. Chemicals and machinery sectors also raised complexity of the procedure to obtain the certificate of origin and also some arbitrary application of rules of origin on temporarily admitted products in Tunisia. Several respondents reported that MED5 rules of origin were too strict and out of date with modern production structures hence did not correspond to the EU business needs.

**Table 22. Customs regulation in MED5 as reported by the EU**

<b>Rules of Origin – EU sample</b>	<b>Sectors</b>	<b>Reported country of destination</b>
Complexity of the rules of origin: excessive restrictiveness, bureaucracy in obtaining the origin certification	Machinery	Israel Tunisia (*) – difficulties with Eur 1
	Automobile and transport equipm.	Cumulative rules and re-export, certificates for non-drawback clause Morocco Tunisia Israel
Out of date rules that do not comply anymore with the modern economic reality	Textile	All MED 5 countries
Rules of Origin arbitrarily applied (temporary admitted products)	Chemicals	Tunisia (*)

*Note.* (\*) Responses from Tunisian importers.

### **Pan Euro-Med system of diagonal cumulation of origin**

In this section we also inquired about the use of Pan-Euro-Med diagonal cumulation of origin. The majority (53 percent) of respondents stated that they were familiar with the Pan Euro-Med system of diagonal cumulation of origin. Around 50 percent of the respondents said that their exports indeed did benefit from this new system of cumulation of origin. The respondents were from several different sectors: processed food sector, automobile, textiles, machinery and electronics sectors were among the beneficiaries. Despite the benefits of diagonal cumulation,

companies from automobiles, machinery and electronics sectors think that current rules of origin are restrictive. German Textile and Clothing Industry indicated that although this system was put in place to promote international division of labour, it suffers from restrictive RoO:

“The Pan-Euro-Med Cumulation of Origin System, like for all the other Preferential premises of the EU, are still in accordance with production and trade patterns and manufacturing technologies of 60s and 70s. That is why they are outdated and especially for the Textile and Clothing industry restrictive. German and European Enterprises have increasing difficulties to declare products as of EU origin due to the restrictive rules of origin system, although added value creation for such product in the EU is more than 50%. A classical example for this is the EU-semi-finished products that are exported to the Mediterranean Region for the confection (finishing) step. These semi-finished products need EU Origin so that they could be re-imported to the EU after the finishing stage of products within the framework of preferential tariffs. Besides an EU export customs tax of 12% would accumulate. As a result of the outdated and restrictive Pan-Euro-Med Rules of Origin System, it is indeed very difficult for the German enterprises to get a certificate of origin for their product, although they have had higher added value in production, compared to the Mediterranean countries doing only the labour-intensive last stage of production.”

**Other barriers**

Although the respondents were specifically asked about NTBs regarding IPR rules, government procurement, and competition policy, only few reported the existence of such barriers in the MED5. For example, an EU automobile company told us that there were lack of respect for IPR in Israel, Morocco and Tunisia. Regarding restrictions in public procurement, it was noted that the procedure was cumbersome, not transparent, and procurement projects were only open to domestic manufacturing firms in Israel. This is interesting because Israel is the only MED5 country among MED5 that has signed the GPA of the WTO. No respondent mentioned difficulties regarding competition policy in MED5. Finally difficulty of doing business in several MED5 countries, and exchange rate restriction in Israel were also mentioned.

**Table 23. Other barriers in the EU sample**

<b>Other barriers – EU sample</b>		<b>Sectors involved</b>	<b>Reported country of destination</b>
Competition Policy	National Protectionism – closed borders	Machinery	Israel
	Discriminatory taxation in place	Automobile and transport equipm.	Jordan



<b>Other barriers – EU sample</b>		<b>Sectors involved</b>	<b>Reported country of destination</b>
Intellectual Property Rights	Lack of strong IPR protection in MED countries that brings to the rising of counterfeited products	Automobile	Morocco Tunisia Israel
Public Procurement	Cumbersome procedures, not transparent and usually only possible with the support of a local partner	Machinery	Israel
	Protectionist measures: public tenders are limited to national manufacture producers	Automobile and transport equipm.	Morocco Israel
	Difficulties related to the tender regulation/procedures (very complex/technical regulation, differences in the documentation required depending to the different authority that issue the tender, etc.)	Automobile and transport equipm.	Morocco Israel
Exchange rates difficulties		Machinery	Israel
Difficulties in doing business	National guidelines are based on very out-dated English or French standards/translations	Machinery	Israel
	Doing business is possible only through the means of a local partner	Machinery	Israel
	Lack of valid business counter-parties	Textile	Tunisia
	Lack of export financing	Automobile and transport equipm.	Tunisia Morocco
	Excessively bureaucratic administrative system	Textile	Tunisia Morocco
	Export quotas and extra duties	Automobile and transport equipm.	Tunisia

### **Services**

Among EU respondents 13 services companies were interviewed including financial, transportation, and other business services. All the respondents mentioned difficulties regarding obtaining visas for professionals or for family in some cases. Restriction on equity is sector specific: it was mentioned in the case of the financial services sector in Morocco and Tunisia. In summary several restrictions regarding mode3 and mode 4 exist in the MED5 (see Table 24).

### **Investment**

Several of the respondents only mentioned industry specific NTBs in Morocco, Tunisia and Egypt: some investors complained about lack of IPR rules as a barrier to investment in Morocco. Other barriers mentioned by investors range from environ-

mental standards, to monopolistic position of the incumbent energy firm in Morocco, and difficulty in procedure to apply for public procurement bids in Morocco.

**Table 24. Other barriers in the EU sample**

Reported barriers to trade in the services sector – EU sample		Country of destination
Way of establishment (mode 3)	Forbidden Private equity or only possible at the expenses of heavy and costly regulations	Tunisia Morocco
	Limitation of the social capital stock’s capitalization	All MED 5
	Bureaucratic procedure (very long administrative approval delays)	
Temporary movement of natural person	Difficulties in obtaining Visas or family units required documents for tourist reasons – especially problematic is the case for children (under 16 years old people)	Egypt
	Complicated procedure to obtaining Visas for temporary employees or people who are travelling to MED countries for professional training reasons	Egypt Morocco Israel

**Table 25. Barriers to Investment in MED5 as reported by the EU**

Reported barriers to trade – EU investors		Sector of activity	Reported country of destination
Sanitary and Phyto-sanitary standards	Environmental standards	Services	Egypt
		Agri and processed food	Morocco
Technical regulations, standards and conformity assessments	Bureaucratic/cumbersome procedures in obtaining documents and certifications (time consuming/not transparent procedures and redundant documentation required) – regulatory burden	Services	Morocco Tunisia Egypt
Custom Unions	Lack of qualification/expertise from the customs personnel (especially for what concerns the marking and labelling)	Agri and processed food	Morocco
Rules of origin	Complexity of the rules of origin: restrictiveness, bureaucracy in obtaining the origin certification	Services	Tunisia
Competition Policy	Monopolistic positions	Services (energy)	Morocco
Intellectual Property Rights	Lack of effective IPR in the market which currently limits investments – high risk of plagiarism	Textile	Morocco
		Services	
Public Procurement	Cumbersome procedures, not transparent and usually only possible with the support of a local partner	Agri and processed food	Morocco
Other barriers	Difficulties in finding a local partner	Agri and proc-	Morocco

Reported barriers to trade – EU investors		Sector of activity	Reported country of destination
		essed food	
	Lack of awareness in business and investment opportunities	Services	Tunisia
	High starting-up cost (bureaucratic problems)	Services	Morocco
	Excessively bureaucratic administrative system (old French based system)	Services	Morocco
	Doing business is possible only through the means of a local partner	Services	Morocco
	Lack of investment financing, especially for SMEs	Services	Morocco

### **MED5: Non-Tariff Barriers in the EU as reported by MED5 business representatives**

A close examination of non-tariff barriers in the EU is crucial in order to understand why some certain sectors in the MED5 are showing weak performance in accessing the EU. In previous sections, it was shown that certain products were not picking up the EU preferences. One explanation for this low utilization rates in specific products can be the existence of NTBs.

The results of the MED5 surveys indicate that, as for the EU respondents, technical standards, customs regulations, rules of origin are the most commonly mentioned trade barriers.

#### **Technical regulations, standards and conformity assessments**

In all MED5 countries (except in Jordan) TBTs were mentioned as a significant barrier to MED5 exports to the EU. Indeed, majority (74 percent) of respondents in Egypt and 92.8 percent in Tunisia but only 40 percent in Morocco and 35 percent of respondents in Israel gave a positive answer to the questions on the existence of TBTs. Among those who indicated that their exports to the EU were suffering from TBTs, 83 percent in Israel, 44 percent in Tunisia, 83 percent in Egypt and 77 percent in Morocco favour harmonization with the EU acquis in order to reduce TBTs.

Lack of standardization with the EU norms, rules and regulations were mentioned by several different sectors in each MED5 country. For example, in Morocco, chemicals, machinery and textiles, in Egypt chemicals and automobile, in Tunisia chemicals and electronics and in Israel only the processed food sector raised concerns due to different standards between the EU and the MED5. MED5 countries find the procedure to comply with EU standards complex and too bu-

reaucratic as well: in Tunisia electronics sector reported that the EU’s standards and conformity assessment lack administrative transparency and require high level of formalities. Other commonly mentioned difficulties that the MED5 companies face in the EU are labelling, marking and packaging: in Tunisia, automobile and textile companies indicate that there are specific rules on the final product packaging (for the automobile sector) and parcel weights (for textiles). However, more so than lack of harmonization with the EU, the MED5 companies mostly mention the difficulty in obtaining product certifications, cumbersome test requirements and product security standards (also anticipate difficulties with REACH). Only one company in Israel claimed that there were differences in the application of technical rules and regulations and conformity assessment of each member state.

**Table 26. Technical regulations, standards and conformity assessment in the EU as reported by MED5**

Description	Reporter	Sector	Further specification
Lack of standardization with EU norms, regulation and standards	Tunisia	Chemicals	Viscosity and other technical norms are very strict Security regulation over raw materials chemical components
		Electronics	Different technical standards (ex. NT technology (technology that aims at removing the asbestos - NT= not asbestos rule). Not harmonized regulations in general
	Egypt	Chemicals	REACH (European Community Regulation on Chemicals): high registration fees
	Egypt	Automobile and transport equip.	Occupational safety and health regulation
	Israel	Agri and processed food	<i>No further specification offered</i>
	Morocco	Machinery	Nomenclature regulations REACH regulation
		Textile	A.T.3 management - Balancing delays
Chemicals		Quality standards IFRS standards (International Financial Reporting Standards)	
Restrictiveness of EU existing regulations	Tunisia	Chemicals	Definition of product features requirements, safety, quality, product performance
		Automobile and transport equip.	ISO quality norms are very strict as well as the one on definition

Description	Reporter	Sector	Further specification
			of product features requirements, safety, product performance
Bureau-cumbersome procedures in obtaining documents and certifications (time consuming/not transparent procedures and redundant documentation required) – regulatory burden	Tunisia	Electronics	Lack of administrative transparency High level of formalities needed
		Chemicals	<i>No further specification offered</i>
		Automobile and transport equip.	<i>No further specification offered</i>
	Morocco	Machinery	A specific certification is required for each product
Labelling, marking and packaging	Tunisia	Automobile and transport equip.	Finished product packaging
		Textile	Special packaging Parcel weight clauses
	Egypt	Chemicals	<i>No further specification offered</i>
Technical controls/product testing and product certification	Tunisia	Chemicals	Product performance standards Test requirement to obtain compliance certification
		Machinery	Security standards (especially standards for consumers)
		Automobile and transport equip.	Test requirements to obtain compliance certification ISO quality norms – too many controls
		Electronics	Claims of homologation per products is sometimes difficult
		Textile	ISO quality norms – too many controls Test requirements to obtain compliance certification: cumbersome and time consuming formalities
	Jordan	Textile	Chemical testing on fabrics. Those testing translate into too high rates that have to be met by the company for them
	Morocco	Electronics	Product security standards
		Machinery	Standards compliance
	Egypt	Chemicals	<i>No further specification offered</i>
		Agri and processed food	<i>No further specification offered</i>
		Automobile and transport equip.	<i>No further specification offered</i>
Lack of availability of the relevant regulatory	Tunisia	Electronics	<i>No further specification offered</i>
	Egypt	Electronics	Companies have to incur much

Description	Reporter	Sector	Further specification
framework in the partner group of countries			research and investment to find out the specific requirements in different EU countries
Differences in the implementation of EU regulations and laws among the sample of EU countries	Tunisia	Textile	Differences in the implementation of the regulatory environment often disrupt also the competitive environment
	Israel	Electronics	Differences in the way the existing regulations are applied make it difficult to get a general overview of EU regulatory framework

In terms of sanitary and phyto-sanitary standards in the agriculture and processed food sector, only differences in standards were mentioned. Respondents indicated that the EU's heavy metals regulations (fishery), and in general canned products regulation constitute a barrier to their exports. Process of searching for mycotoxin and other bacteriologic parameters (which are not relevant for the specific product mentioned) were mentioned to inhibit trade.

### Customs regulations

Customs regulations of the EU are mostly agreed to present several difficulties for MED5 exporters. The most commonly mentioned difficulty is complying with EU's regulations themselves. Respondents indicated that several specific problems, such as inspection before expedition/clearance (textiles), long clearance delays particularly flammable products (chemicals), old fashion way of declaring by product (automobile), TIPP management<sup>47</sup> (agri-food), merchandise transit delays (machinery) and significant number of administrative procedures (electronics). In some cases, MED5 companies mentioned that the EU applies additional customs duties and taxes such as the VAT for goods on consignment. Pre-financing of bounded material is also reported (see Table 27).

### Rules of origin

MED5 respondents mostly find EU rules of origin excessively restrictive and the procedures to obtain a certificate of origin too bureaucratic. Respondents explained in detail that the process of obtaining certification is costly as the certification is needed for each product (even if the product is the same). The rules are too restrictive with respect to some raw materials and some products originated in specific countries. It is also mentioned that in the special case of imports coming from new EU member states Eur1 is not accepted as a proof of products EU origin

<sup>47</sup> Internal tax on oil products in France.

(this particularly applies to temporarily admitted goods). It is also mentioned that customs officials are not always knowledgeable. Rules of origin were not reported as a NTB by Israeli companies or by Egyptian companies. In Morocco some companies pointed out to the restrictiveness of rules of origin on processed fish because the origin of the fishing vessel is also taken into account to determine origin of the product. Difficulties in estimating the value added of a product and problems with goods originating in Asian countries (textile) were among the responses.

**Table 27. Customs regulation in EU as reported by MED5**

<b>Description</b>	<b>Reported country of origin</b>	<b>Sector</b>	<b>Further specification</b>
Lack of qualification/expertise from the customs personnel (difficulties in communication, rules arbitrarily applied, lack of transparency, problems with languages)	Egypt	Agri and processed food	<i>No further specification offered</i>
	Tunisia	Chemicals	Evaluation problems when attributing codes to the products Qualification problems especially in the new EU member states
		Textile	Delays concerning spares' customs clearance due to privileges Custom authorities are not well informed about regulation (particularly regulation concerning raw materials' rules of origin)
		Agri and processed food	Problems with languages translation often block the merchandise at the harbour causing delays
	Morocco	Machinery	<i>No further specification offered</i>
Lack of standardization with EU customs' regulations	Tunisia	Electronics	<i>No further specification offered</i>
	Egypt	Electronics	Customs requirements are different among different countries within EU – implementation problems
Customs clearance complexity, high customs clearance costs excessive bureaucracy which causes cumbersome and lengthy procedures	Tunisia	Textile	Inspection before expedition/clearance
		Automobile and transport equip.	Archaic process – declaration by product
		Electronics	Significant number of administrative procedures
		Chemicals	Very long clearance delays Particularly for flammable products
		Agri and processed food	<i>No further specification offered</i>
	Egypt	Chemicals	<i>No further specification offered</i>
		Automobile and transport equip.	Inspections on Paper-Work Product certification

Description	Reported country of origin	Sector	Further specification	
	Israel	Agri and processed food	Restrictions and additional physical checks in the ports	
	Morocco	Chemicals	<i>No further specification offered</i>	
		Agri and processed food	TIPP management (TIPP = Internal Tax on Oil Products - France)	
		Machinery	Merchandise transit delays	
		Textile	<i>No further specification offered</i>	
		Electronics	<i>No further specification offered</i>	
	Jordan	Machinery	Long transit time for the exports towards EU	
		Textile	High cost of shipping	
	Custom taxes/duties/quotas	Tunisia	Textile	Excessive store up cost
		Egypt	Agri and processed food	High cost of containers necessary to store merchandise (transit costs)
Automobile and transport equip.			Value Added taxes for goods on consignment (financing cost/letter of guarantee to forwarder/legal representative cost)	
			Pre-finance of bounded material	
Morocco		Agri and processed food	High cost of containers necessary to store merchandise (transit costs)	
		Textile	<i>No further specification offered</i>	
Packaging conditions		Egypt	Chemicals	Sometimes it might even happen that the customs personnel open up the parcel to check for its content obviously damaging it

**Table 28. Rules of origin as reported by MED5**

Description	Reported country of origin	Sector	Reported country of destination
Complexity of the rules of origin: excessive restrictiveness, bureaucracy in obtaining the origin certification	Tunisia	Chemicals	Redundant certification required each time even for the same kind of products They are too restrictive: when imports are from a new EU member state, Eur 1 is not accepted as a proof of the product's European origin, most of all for temporarily admitted products. Customs agents are often not informed
		Machinery	Complexity in obtaining the origin certificate within the Chamber of commerce.
		Textile	Complexity in obtaining the origin certifi-



Description	Reported country of origin	Sector	Reported country of destination	
			cate within the Chamber of commerce. The rules of origin are too restrictive with respect to some raw materials and to some products originated in specific countries Too many documentations required	
		Electronics	<i>No further specification offered</i>	
	Morocco	Agri and processed food	Restrictiveness of the rules of origin for the processed fish (problems with the origin of the fishing vessels in order to be able to benefit from the origin customs advantage)	
		Textile	Difficulties in calculating entering material's value	
			Problems with Asian origin products Transformed goods originated in the EU are favoured	
	Jordan	Machinery	Eur 1 certification	
		Textile	Eur 1 certification	
			Difficulties in complying with the Double transformation rule of ROO.	
	Rules of Origin arbitrarily applied (temporary admitted products)	Tunisia	Chemicals	<i>No further specification offered</i>

### Pan Euro-Med system of diagonal cumulation of origin

The knowledge of the Pan-Euro-Med system of diagonal cumulation of origin is rather high among MED5 respondents: 53 percent of the respondents indicated that they are familiar with it. In terms of the responses from different sectors, there is a wide variety in the level of familiarity with the PanEuroMed system. For example, while 53 percent of agriculture and processed food companies from MED5 indicated that they are familiar with this system, it was only 31 percent in the automobile industry. This is especially curious as automobile sector is one of the sectors that were supposed to have benefited from it. The same rate is 85 percent among chemical companies, 33 percent in electronics, and 58 percent in machinery. Of all respondents who gave an affirmative answer to the knowledge question, 44 percent in agri-food sector claimed to have benefited from the new system and that 45 percent do not think the current rules of origin are restrictive. In the chemical sector 77 percent of the respondents said that their business benefited from PanEuroMed cumulation of origin, 66 percent do not think the RoO are restrictive. Electronics and machinery sector both have reported low levels of usage of the diagonal cumulation (i.e. 10

percent in electronics, 36 percent in machinery). Most of the respondents indicated that the cost of obtaining a certificate of origin was negligible.

**Other barriers**

Among other barriers that were mentioned by MED5 business representatives are strict IPR rules (patents and licenses) and public procurement, export subsidies and domestic support (chemicals), and anti-dumping and countervailing measures. The main issue regarding patents is that the MED5 companies find the EU market strictly protected by patents and that they can only work under licenses with the EU. If they do not, the quality of their products is questioned. In terms of restrictions related to public procurement, several respondents mentioned that foreign companies were excluded from bidding. The procurement procedure is also quite different than it is in the MED5.

**Table 29. Other barriers in EU as reported by MED5**

Description		Reporter	Sector	Further specification
Competition Policy	National Protectionism – closed borders	Tunisia	Electronics	Existence of dominant positions of EU national companies
		Egypt	Chemicals	Export subsidies and domestic support
		Jordan	Machinery	National EU governments grant high protection to EU companies in terms of sector specific subsidies and this creates unfair competition.
Intellectual Property Rights	Tighter IPR protection in EU countries compared to MED countries	Tunisia	Chemicals	<i>No further specification offered</i>
			Textile	The IPR regulatory framework in Europe is such that Tunisian companies can work only under license granted by big EU companies. If not the quality of their products would be considered too low
			Electronics	The EU market is completely protected by EU patents so that it is not possible for Tunisian companies to compete in such an environment if not by becoming licensees of EU companies.
		Morocco	Chemicals	Patents Licenses

Description	Reporter	Sector	Further specification	
Public Procurement	Cumbersome procedures, not transparent and usually only possible with the support of a local partner	Tunisia	Electronics	Non neutral/arbitrary procedures
		Israel	Agri and processed food	<i>No further specification offered</i>
		Morocco	Textile	<i>No further specification offered</i>
	Protectionist measures: public tenders are limited to national manufacture producers	Tunisia	Electronics	The tender often contains restrictive clauses such as the fact that the company provider must be European
		Israel	Agri and processed food	The deadline for the tender is normally very short and the tender is only written in the national language
		Morocco	Textile	European suppliers are favourite
	Difficulties related to the tender regulation/procedures (very complex/technical regulation, differences in the documentation required depending to the different authority that issue the tender, etc.)	Tunisia	Electronics	The standards demanded are often very different with respect to the ones that would be demanded in MED countries
		Israel	Agri and processed food	Arbitrary way of judging the participants to the tender. A company might be excluded because its product does not correspond to the national taste.
	Exchange rates difficulties		Tunisia	Machinery
Difficulties in doing business	Doing business is possible only through the means of a local partner	Tunisia	Electronics	There is a major problem in terms of assessing the information that is needed in order to run a business in Europe. This creates uncertainty.
	Lack of valid business counter-parties	Morocco	Electronics	Difficulties in finding a business partner
	Excessively bureaucratic administrative system	Egypt	Agri and processed food	Complicated software system for the issuing of the requested documents
Chemicals			Lack of cooperation between Ministry of Finance	

Description	Reporter	Sector	Further specification
			and Ministry of Industry
Cultural/social/political barriers	Tunisia	Electronics	There are cultural ties in Europe such that naturally the business relationship preferably happen among EU companies themselves
	Israel	Agri and processed food	Starting from 2008 some consumers in UK and Norway refuse to buy “made in Israel” products
	Morocco	Agri and processed food	<i>No further specification offered</i>
		Textile	Social conformity

### Services

The services sector in the MED5 is actively seeking liberalization of the services sector with the EU as many face-to-face respondents indicated that the slow pace of services liberalization was one of the weaknesses of the Association Agreements. Problems related to both mode 3 and mode 4 were mentioned, especially with regards to visa requirements, lack of recognition of certification and diplomas and bureaucratic procedures.

## 6.5. Summary and Conclusion

In this section we presented the detailed results of the business survey from both the EU and MED5 respondents in several industries. As indicated the questionnaire was designed in two parts: PART A to assess perceptions about the AA and PART B to assess existing NTBs. Below we would like to summarize and highlight the key issues that were raised by the respondents.

- Overall knowledge about the Association Agreements among the MED5 respondents was extremely high, in contrast with the EU respondents. The lower recognition among the EU respondents is due to two factors: the respondents who were not familiar with the AA were either in those sectors that are not yet covered by the AA (e.g. agriculture and services) or that the MED5 were not their core export markets. Among the EU respondents who reported not having any knowledge of the AA the majority consisted of SMEs. In in-depth face-to-face interviews many SMEs

complained that they did not have resources (manpower) to acquire detailed knowledge about one particular market (i.e. the Mediterranean) and often end-up making a choice to concentrate on the most profitable ones. Hence due to several transaction and information costs, the return from Mediterranean trade is uncertain and the market is not the most attractive.

- Following from above comment, both EU and MED5 respondents indicated that the most important strength of the AA has been tariff liberalization but since it has not yet been completed it is also the most significant weakness of the EU-Mediterranean trade and investment relations. Creating business opportunities was also one of the benefits from the AA but again, obvious from responses, there is a need for more B2B events to disseminate information on business leads.
- EU and MED5 respondents think with overwhelming majority that the lack of South-South integration is one of the weaknesses of the EU-Mediterranean trade relations. Especially EU respondents emphasized that the Mediterranean is perceived to be small and divided and hence from a business perspective not interesting. It is important to highlight that both the EU and MED5 respondents expect the EU to play a more active role in promoting South-South integration.
- In face-to-face interviews it became evident that the channels of consultation on EU related matters in the MED countries are obsolete. The respondents indicated that they would like an EU initiative to involve the private sector in the MED in future negotiations. Lack of implementation of AA is also mentioned as an important problem both by the EU and MED5 respondents. It was mentioned that the EU needs to ensure the monitoring of the implementation of the AA and the Agadir agreement. The establishment of an observatory run by the EU services and an online tool to clarify the provisions of the AA and Agadir to the private sector in the region were suggested. In order to promote implementation of Agadir the EU should invite other countries to join and introduce a concept of regional solidarity.
- Without a doubt the most significant barrier to trade between the EU and the Mediterranean is problems related to customs rules and regulations. Both sides find customs regulations cumbersome and lengthy and hence present an additional cost to business. Problems of transparency, consistency and well-informed customs officials were also reported not just as a problem of MED5 but also in the EU. Most of the respondents think

that harmonization with the *acquis* would be a solution to these problems.

- The second most mentioned NTB by both the EU and MED5 respondents is the rules of origin. However unlike issues related to customs, this barrier is more industry specific, i.e. textiles and automobiles- due the high level of vertical integration within the two sectors. These industries find the current rules of origin out of date and very strict. For the EU business rules of origin present a more technical problem: although modern production is very finely divided into different stages, the current rules of origin do not recognize the ‘division of labour’ and hence the exporters cannot benefit from the rules of origin. On the other hand, it should be acknowledged that MED5 is beginning to be more and more integrated with Asia as a natural result of globalization and hence it is sourcing inputs (e.g. in textiles) from low-cost countries. Several respondents reported the current rules of origin would not allow inputs from certain countries.
- By the other sectors such as chemicals, electronics and machinery technical standards were often mentioned to be cumbersome and strict by MED5 and often arbitrary and bureaucratic the EU. Few respondents raised concern over IPR, competition policy and public procurement. We conclude that EU-Mediterranean relations are still at an early stage of development: there are still significant tariff barriers before tackling NTBs. In order to benefit from a state-of-the art deep FTA including IPR, public procurement etc. MED5 countries also have to reach a certain level of competitiveness. Several respondents mentioned that they could not participate in a public procurement bid in the EU as they have not yet attained the capacity to do so. Negotiations on IPR and public procurement may be of interest to the EU as they would have a competitive advantage in several industries that would benefit from better IPR rules and more open procurement markets. This would boost EU trade and certainly EU FDI in the region. Even though the benefits from a deep FTA may not be visible immediately to the MED5, in terms of increased exports, the region would indirectly benefit from attracting FDI much needed to boost the domestic private industry (especially those sectors that will be discussed in the following section).
- In the business survey we asked respondents questions about their knowledge of the PanEuroMed diagonal cumulation of origin and whether their business has benefited from it or not. This information is important as there is no prior knowledge of the utilization rate of this new system as it is very recently implemented. The knowledge of the

PanEuroMed cumulation of origin is high both among the EU and MED5 respondents (53 percent for both). Among the MED5 the percent of companies that have benefited from this new system changes from sector to sector: chemicals in the MED5 have reportedly benefited from diagonal cumulation to a large extent and that they do not find the current rules of origin restrictive. Several MED5 respondents indicated that the cost of obtaining a certificate of origin was negligible. Although it is difficult to generalize, in some sectors the rate of utilization of the PanEuroMed diagonal cumulation of origin was as high as 70 percent of exports.

# 7. Key Sectors

## 7.1. Introduction

Previous sections have provided extensive analysis of both trade flows at a highly disaggregate level and an account of non-tariff barriers in the MED5 based on previous evidence. Together with the results of the business survey, there emerge four broad categories of sectors which hold a greater potential to reap the benefits from a future deep FTA between the EU and the Mediterranean. Three sectors that are commonly important not only for the MED5 but also for the EU are textiles and clothing (SITC Rev. 3 code 65 and 84), machinery and transport equipment (SITC Rev. 3 code 7), chemicals (SITC Rev. 3 code 5); in addition we have selected the services sector.

The rationale we follow to select the key sectors for future negotiations are manifold. First, the results of the analysis of trade data, and of NTBs suggest that a number of sectors might be facing market access problems when entering the EU which were then confirmed by the responses to the business surveys. However, the aim of this section is not only to identify those sectors where data and survey responses indicate market access problems but also those that have increased in economic importance for the MED5 since 1996<sup>48</sup>. Secondly, we argue that it is crucial to identify those sectors that are adding more value to MED5 economy and growing in exports from the MED5 to the EU.

In other words we do not just focus on ‘present’ but also on ‘future’ key sectors that are expected to play an increasingly important role in EU-Mediterranean trade and investment relations. Third, as per responses to the business survey indicated, the four selected sectors are also the ones on which there is keen interest from both sides of the Mediterranean.<sup>49</sup> These sectors should be subject to greater incentives as well as present greater opportunities for further integration through deep FTA liberalization.

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<sup>48</sup> This was indicated in the inception report as per discussions at the Commission at the kick-off meeting.

<sup>49</sup> For example, further liberalization of agriculture and agricultural goods would be important for the MED5 as this sector still account for a considerable share of GDP and employment in certain countries in the region. However, since its importance in terms of its share in the value added or in exports is declining, agriculture sector is not going to be part of this section.



From EU's perspective the machinery and transport equipment and the chemical sector represent the sectors that the EU exports heavily to the MED5 and where in general the EU has a comparative advantage. Based on earlier analysis (see Appendix 1) we note that in all MED5 countries the exports from these two sectors have grown rapidly since 1996 Barcelona Process, according to the latest available figures of export value in 2006. It is however important to note that without further econometric analysis we cannot attribute the rise of these sectors in MED5 solely to the Barcelona Process. As one can see from the Development Plan of several MED5 countries, these countries have been targeting and encouraging the growth of domestic machinery and transport equipment and chemicals sectors as well, as replacements for other traditional and low-skill and low-capital sectors. One traditional sector is textiles. Although textiles and clothing sectors are more traditional sectors for the Mediterranean countries, the current wave of globalization has presented a common challenge for both the Mediterranean and the European textiles industry due to increased competition from lower cost Asian producers, mainly China. For sustainable competitiveness of European textile industry, the EU sees low wage countries at close proximity like the Mediterranean countries as a way to compete with countries like China. On the other hand, the Mediterranean countries need investment from the EU in this sector in order to move up the value-added ladder, and concentrate on more R&D and capital-intensive activities within the textiles sector<sup>50</sup>. There is already evidence in export data that concentration in the higher value-added sectors such as apparel & clothing has taken place in the MED5.

Classic international trade theory argues that trade liberalization helps countries specialize in the production of those products where they have a comparative advantage, as a result of which the country benefits from static productivity gains. Several empirical studies test the relationship between trade openness and growth such as Sachs and Warner (1995), Frankel and Romer (1999) and Dollar and Kraay (2004). According to endogenous growth models and new trade theories the interaction between trade openness and growth is no longer static and the gains from trade liberalization come from accumulation and/or transfer of technology or a concentration on innovation. Hence new trade theories foresee the gains from trade liberalization to be dynamic as countries accumulate more technology and carry out more innovation which is the key to long-term growth. In this section we will argue that M&T and the chemicals sectors represent two such sectors for the MED5 where these countries are gaining dynamic comparative advantage. As such these sectors are of special importance to the sustainable growth and employment of MED countries as by nature both have high technology content and therefore can be instrumental in technology transfer.

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<sup>50</sup> We will elaborate on this later in the following section on textiles.

As theory suggests there may be several channels of technology transfer. Trade and FDI represent two of these channels. According to the ‘learning by doing’ theory, importing high-technology products is one way of accessing new technology. Another is through inflows of FDI in high-technology sectors. For example Blalock and Gertler (2008) find theoretically and empirically that multinational firms in emerging markets transfer technology to local suppliers to increase their productivity and lower input prices. They argue that this is welfare improving not only for those sectors that attract FDI but also those sectors downstream who are suppliers. In another study, Kugler (2006) finds that even if the MNCs may restrict transfer of technology (hence leakage to competitors) within the same sector to maximize their profits, host country benefits in other sectors.<sup>51</sup> However, in order to attract and actually benefit from FDI in high-technology sectors, MED5 countries have to ensure that three specific conditions are met:

- in order to benefit from high-tech FDI (and trade) the stock of human capital has to be sufficiently high (see e.g. Borensztein, De Gregorio and Lee ,1998). The level of education of the local work force actually indicates the absorption capacity of the host economy (See below Table 30 on primary, secondary and tertiary enrolment rates in the MED5). In terms of education, Israel scores highest among the MED5, and has a significantly higher rate of tertiary enrolment compared to EU average. On the other hand, Morocco fares poorly with low secondary and tertiary enrolment rates, while the rest ranks somewhere between the example of Israel and Morocco. This clearly signals that investment in human capital is required urgently in the region so that they can reap the benefits of trade and investment liberalization.

**Table 30. Basic education statistics in the MED**

	<b>Net Primary Enrolment Rate</b>	<b>Net secondary enrolment rate</b>	<b>School enrolment, tertiary (% gross)</b>
Egypt	95.7	80.0 <sup>(5)</sup>	34.7 <sup>(3)</sup>
Israel	97.1	87.6	57.6 <sup>(2)</sup>
Jordan	88.6	86.6	39.0 <sup>(2)</sup>
Morocco	88.8	34.5 <sup>(4)</sup>	11.3
Tunisia	95.0	64.4 <sup>(4)</sup>	31.0 <sup>(2)</sup>
<b>MED 5 - average</b>	<b>93.1</b>	<b>70.6</b>	<b>34.7</b>
EU-19 average			34.0

Note. <sup>(2)</sup> Data 2006. <sup>(3)</sup> Data 2005. <sup>(4)</sup> Data 2003. <sup>(5)</sup> Data 2002.

<sup>51</sup> Kugler, M (2006) “Spillovers from FDI: within or between industries?”, *Journal of Development Economics*, vol 80(2).

Studies indicate that only beyond a certain threshold, the host economy (i.e. MED5) may benefit from growth-enhancing impact of FDI. A similar argument may also apply for trade. Related to the quality of human capital is also the promotion and domestic investment in R&D through research centres and universities. It is difficult to attract high-tech foreign sectors if there is not sufficient stock of R&D in the host economy. For example South Korea is a good example where rapid growth was mainly export-led but that benefited from high level of public and private spending in education and R&D.

- High-tech industries are intensive in knowledge-capital, and the foreign investor would like to protect this intangible asset to maximize its profits. This requires that the host country both respects and implements IPR regulation according to internationally acknowledged standard. Respect of IPR rules may be more important in attracting high-tech FDI than offering generous fiscal incentives.
- It is crucial to remember that the benefits from technology transfer via FDI (and trade) can only be achieved if there is a growing and vibrant domestic sector. There are some examples of countries where governments offer special (fiscal and /or financial) incentives to the foreign investor in competition with other countries to the detriment of the local industry.<sup>52</sup> In such a case FDI may create inefficiencies in the allocation of resources within the host country as they may replace domestic industry due to a competitive edge that relies on their preferential access to the market (not necessarily being the more efficient producer).

In the remainder of this section we will describe in detail the macroeconomic importance of textiles, machinery and transport equipment, the chemical and services sectors for MED5 countries as well as their increasing export performance. We will also present market access problems for each sector using both revealed market access indices and qualitative results from the business survey.

## **7.2. Analysis of Key sectors**

### **Textiles**

The textile industry has an important place in the domestic economy of four of the MED5 economies, namely for Egypt, Jordan, Tunisia, and Morocco. A recent

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<sup>52</sup> For example, Saudi Arabia offers foreign investors fiscal incentives that put the local private sector at a disadvantage. While foreign investor pays 20 percent tax on profit, the local industry pays 10 percent tax on asset (zekat).

study by DG ECFIN (2007) has shown that “trade openness has exposed Mediterranean countries to increased international competition”. The impact of the expiry of the WTO Multi-Fibre Agreement (MFA) presents evidence indicating that some Mediterranean countries that are highly dependent on the textile and clothing sector (i.e. Tunisia, Morocco, Jordan and Egypt) have experienced a drop in their share of the EU export market. Since the removal of the remaining MFA quotas, textiles and clothing exports to the EU by Tunisia, Morocco and Jordan to the EU have declined by 5.8%, 7.4% and 13%, respectively. Egypt, whose exports are well diversified geographically between the EU and US markets, managed to maintain textile exports to the EU, with just a marginal decline of 1% in the value of textiles and clothes. On the other hand, Egypt and Jordan have both performed strongly in the US market after the MFA removal. In 2005, exports to the US from the two countries increased by 8% and 13%, respectively, reflecting their preferential access to the US market through their Qualified Industrial Zone Agreements. Tunisian exports to the US also increased in 2005 after the removal of quotas (15.5%), in contrast with a decline of over 20% in Moroccan exports during the same period.

The results of the face-to-face interviews with the EU T&C sector revealed that the T&C sector in the Mediterranean countries and the EU are complementary and that the latter depend on the former to boost its competitiveness against China and India. The Table 31 below indicates some statistics of the T&C in the EU. The EU T&C sector has a turnover of €211 billion, with investment reaching €5.6 billion. There are over 175 thousand firms operating in the T&C sector that employ 2.5 million people (2007). This indicates that the T&C sector in the EU27 is more capital-intensive unlike the Mediterranean countries, which are more labour-intensive in their textile production hence the complementarities. The EU27 has a trade deficit of €42.9 million in total T&C as of 2007.

**Table 31. EU27 –Basic statistics of the T&C sector**

	<b>2007</b>	<b>% growth 2006/2007</b>
Total employment	2.474.932	-6.4
Total number of firms	175.830	
Turnover (billions euros)	211.3	1.2
Investment (billions euros)	5.6	0.9

*Source:* EURATEX estimates (with Man-made Fibres and small companies).

A comprehensive study of the Euro-Mediterranean T&C sector by Limantour (2007) concludes T&C sector is of mutual importance for the EU and the Mediterranean countries. The study recommends that in the current environment of increased globalization and decreasing tariffs, this sector must strengthen its com-

petitiveness, which will require greater emphasis on the role of R&D. One of the most important conclusions is undoubtedly the cooperation that is needed from both the EU and the Mediterranean, as it is only if they cooperate; they can face competition from China or India. As a result of Euro-Med consultations, it was proposed to create a permanent Euro-Mediterranean Research and Innovation Task Force.

**Table 32. EU27 External Trade**

Sector	Millions euro				% growth
	2004	2005	2006	2007	2004/2007
<i>Textile</i>					
Imports	17.610	18.074	19.867	20.855	18.4
Exports	18.537	18.482	19.218	19.380	4.6
Balance	927	408	-649	-1.475	
<i>Clothing</i>					
Imports	45.052	49;305	55.491	58.079	28.9
Exports	13.368	14.112	15.362	16.625	24.4
Balance	-31.684	-35.193	-40.129	-41.454	
<i>Textiles/clothing</i>					
Imports	62.662	67.379	75.358	78.934	26.0
Exports	31.905	32.594	34.580	36.005	12.9
Balance	-30.757	-34.785	-40.778	-42.929	

Source: Eurostat.

## **T&C in the MED5**

For **Egypt**, the textile industry is the second largest in production after the agro-food industry, but it is by far the largest sector in terms of employment in the Egyptian economy. The sector employs more than 1 million people. According to the statistics from the Central Bank, textiles account for 3% of the GDP, 27% of industrial production, 25% of total work force. It is currently one of the largest manufacturing sectors in the Egyptian economy, with over 5000 manufacturing establishments and total investments of nearly 20 Billion Egyptian Pounds. In addition, with its skilled and relatively low-cost labour force, high quality raw materials and location advantage, Egyptian textile and clothing sector promises a bright future for increasing exports and investment opportunities.<sup>53</sup> Egypt is currently undergoing a

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<sup>53</sup> The textile industry in Egypt covers the entire spectrum of cotton processing operations, and it is one of the very few manufacturing processes in Egypt that is handled completely in-country. This highlights the significance of the industry as a major contributor to growth and income generation in the economy.

new phase of development: transforming Egypt's Industry and Export sectors to become knowledge-based and sustainable competitive sectors. Among the 13 Egyptian Technology Transfer and innovation centers, there are 3 Technology and innovation centers concentrated in the Textiles and clothing sectors.<sup>54</sup>

**Tunisia** also has a T&C sector of strategic importance. The sector employs more than 200,000 people (35% of industrial employment). The sector is constituted by 2000 enterprises, of which 50% are with foreign participation. Of those 2000 firms, 85% are exporters. The T&C sector contributes up to 7% of the GDP and creates around 6000 new jobs every year. Almost all exports are directed towards the EU. As the other countries in the Mediterranean, Tunisian T&C sector is under competitive pressure from Asian producers. As a result Tunisia took a series of steps in order to restore the competitiveness of the T&C sector and also increase its value-added through innovation promoting policies. One of the policies to increase innovation in the T&C sectors (as well as others) was increased investment in education. The average public spending on education reached 18% where in comparison the average rates in the OECD are around 12% of the government budget. There was also a program to initiate private sector involvement, as well as increased R&D (Youssef, 2007).

For **Morocco**, textiles were once at the forefront of export-led industrial growth, but lately the sector has faced serious difficulties. Textile sector experienced a decline especially after the Multi-Fibre Arrangement (MFA) of 2005 which had limited textile imports into the EU from many lower-cost producers output, but it expanded gradually in 2006 and 2007 and is now almost back to its 2004 level. The sector, which accounts for about 5% of GDP, is a classic transformation industry, with most raw and semi-finished inputs, such as textile yarns and cloth, being imported and most of the cloth and clothing produced being exported. Textile exports account for about 25% of total exports, with imports of fibres, yarns, cloth and accessories accounting for 10% of imports.

The sector is polarized between a large number of small, locally owned companies subcontracting to European distributors, and a smaller number of bigger firms, most of them owned by EU-based companies. The former, with low productivity and a weak skills base are highly vulnerable to Asian competition, where the latter, with established links to sales and distribution networks and generally more

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<sup>54</sup> One of these centers, Fashion Design Center, aims to promote fields of fashion design, pattern making and fashion stylists through the extensive training of young designers in collaboration with Italian companies. Another of the centers, textile and clothing business center, cooperates with German experts to improve the competitiveness of Egyptian T&C sector. (Barakat, 2007).

efficient production techniques, seem more able to compete. The sector as a whole suffers from a lack of domestic integration and consequent high production costs.

The textile and clothing industry is considered one of the main industrial sectors in **Jordan** contributing to more than 30% of Jordan's total exports and employing more than 55,000 people. The power of the sector mainly depends on the new industrial zones, partnership agreements with the European Union and the United States, the existence of a qualified labour force and Jordan's exceptional geographic location. The Qualified Industrial Zones (QIZ) agreement signed in 1996 with the US, granted any product manufactured within the QIZ a preferential duty free and quota free access to the US. In 2001, the signature of the FTA with the US made it more suitable for Jordan's textile and apparel products to enter the US market and gave the Jordanian manufacturers the flexibility to choose from either the FTA or the QIZ prior to manufacturing a duty-free product. All these gives Jordan's textile and clothing sector a potential for the future.

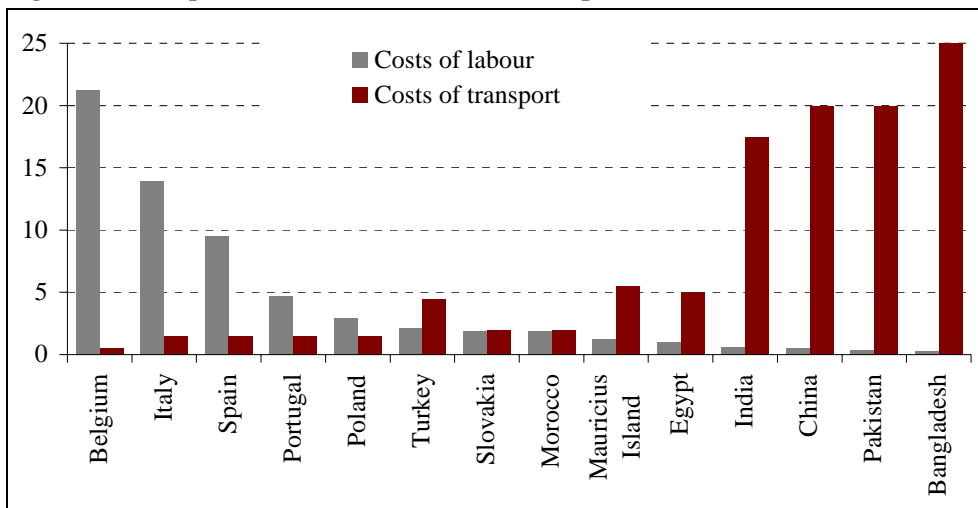
Even though the MED5 are competitive in terms of both low wage costs -- and proximity to the EU (hence low transport costs) (see Figure 4) and despite the Association Agreements signed there are still market access problems. Detailed analysis of the export structure of the MED5 to the EU in Appendix 1 (Tables 34-43) shows the importance of the T&C sector: 6 out of the top 15 sectors of MED exports to the world was in T&C, whereas 8 out of top 15 exports to the EU were in the same sector in 1996. Most of these export products have shown decreasing shares and comparative advantages in 2006 with the exception of t-shirts.<sup>55</sup> There has been especially dramatic change in the export structure of Tunisia and Morocco in this sector, where the former reduced its exports in this sector from 50% to 33%, and the later reduced from a third of total exports to a quarter. Within this sector, MED exports were mainly in the higher value-adding sector of apparel and clothing (84) in Tunisia, Jordan and Morocco but Egypt is also recently seem to be moving into the higher value added sector. It was also shown that MED countries had high comparative advantages and very good market access in the EU. However, it was also shown that for e.g. although 83% of Egypt's exports in 'apparel and clothing' (SITC 84) enjoyed zero tariff under preferences, a rather large share (10.39%) of exports in the same category had to pay the 11.94% MFN tariff rate. Morocco as well had to pay the full MFN rate of 11.92% in its 12.8% preference eligible exports in apparel and clothing (knitted and crocheted). There is also some evidence of this kind in Tunisia. In Appendix 1 we can see that textile sector is among those sectors that experience market access problems: revealed market

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<sup>55</sup> This is an indication that MED exports have actually diversified away from low value-added and primary sectors to higher-value added sector such automobiles and other industrial products.

access indices (1&2) indicate that especially Jordan and Egypt have several textile products which face difficulty in accessing the EU market given the revealed comparative advantage of both countries and the size of the EU market. There is also some evidence of a similar kind in Israel although to a lesser degree. For Tunisia and Morocco we do not find quantitative evidence of market access problems: this can be explained by the fact that both of these countries have the most integrated textiles industry with that of the EU: 91 percent of total T&C exports of Morocco are exported to the EU whereas 94 percent of total T&C exports of Tunisia are exported to the EU (Table 19 Appendix 1).

**Figure 4. A comparison of cost of labour and transport costs in T&C**



Source: Alaoui, 2007.

Business survey confirms that the rules of origin and customs regulations are a major source of problem for both the EU and also for MED countries. Several respondents described the procedure to obtain a certificate of origin cumbersome, bureaucratic and costly. Especially EU textile companies indicated that the ‘rules of origin’ applied in this sector is out of date. On the other hand the MED5 find that rules of origin are too restrictive especially vis-à-vis products originating in Asia<sup>56</sup>. The MED5 also reported difficulties with customs valuation. In addition to this, REACH was seen as a technical barrier to trade in textiles. Packaging, labelling and technical regulations and controls are found also to add to non-tariff barriers. The EU exporters also raised concern over labelling and testing and certification (in Egypt and Tunisia especially). Among all MED5 countries, Tunisia was

<sup>56</sup> 40 percent of value added to obtain an origin certificate is too restrictive according to Tunisia.



the one most mentioned to suffer from lack of transparency in customs regulation. Lack of implementation of IPR was also mentioned as a barrier to investment.

Although there has been upgrading within the sector toward higher value-added activities such as apparel and clothing and efforts to increase Euro-Med competitiveness by encouraging R&D and innovation in this sector, this traditional sector is going to become less significant for MED countries as they diversify their industrial production base to more high-tech, high-value added industrial sectors.

## **Machinery and Transport Equipment**

Broadly the machinery and transport equipment (M&T) sector (which covers a wide range of machinery including power generating, metal working, office, telecommunications, electrical and road vehicles) has become a significant sector for all MED5 except for Egypt. In 2006, the exports of this sector to the EU were among the top 3, accounting for 17.63 percent of total export to the EU for Morocco, 23.8 percent for Israel, 11.2 percent for Jordan and 24.5 percent for Tunisia. Alternatively, all MED5 are highly dependent on imports of products of this sector from the EU: of total imports from the EU, 36.2 percent of Morocco's imports were in this sector, whereas it was 41.9 percent for Egypt, 33.2 percent for Israel, 54.4 percent for Jordan and 33.4 percent for Tunisia (Table 13 Appendix 1).

Below we describe in more detail the relative importance of this sector for each of the MED5 countries:

**Egypt** has witnessed a rapid economic growth since 2004 and this trend has led to an increasing need for machinery and transport equipment. The production of machinery and transport equipment sector is rapidly growing in Egypt; the sector's exports (SITC code 7) increased from \$49 million in 2000 to \$1.1 billion in 2008. The share of the sector in Egypt's total exports also increased from 1% in 2000 to 4.7% in 2008. Still, despite this rapid growth, the domestic sector stays insufficient to meet the rising demand for machinery and transport equipment in the economy. Egypt's import of machinery and transport equipment was \$11 billion in 2008. Egypt mainly imports motor vehicles and parts, telecommunication equipment, industrial machinery from the EU (Germany, Italy, France, UK, Sweden), China, Japan and the US and exports electrical machinery comprising largely of insulated wires (SITC 7731) to the UK, Saudi Arabia and Libya.

In terms of Egypt's bilateral trade with the EU, imports of machinery and transport equipment is the most important item, with 29% of total trade and 44% of the EU's exports to Egypt. As the rapid growth trend of Egyptian economy continues and the domestic demand for machinery, electrical apparels, road vehi-

cles and their parts increase, Egypt is expected to remain an important market for European exporters of machinery and transport equipment.

Machinery and transport equipment sector is regarded as one of the fastest growing and potentially important export sectors of **Moroccan** economy. In 2007, motor vehicles and electrical machinery were among the best performing product groups in terms of production growth. A wide range of products are produced, such as electric cables, transformers, gas heaters, automotive parts and accessories, bicycles, motorcycles, pumps, irrigation equipment etc. Morocco has an advantage of skilled workers and government incentives in the sector that attracts foreign investors in the recent years. The Moroccan government aims to meet domestic demand and create an export potential in the sector, especially in agricultural equipment and machinery, diesel engines, transport equipment, construction and mining machinery. But currently Morocco is a net importer of machinery and transport equipment, with \$9 billion of imports compared to \$2.4 billion of exports in 2007. Morocco imports road vehicles, electrical and industrial machinery mainly from the EU (France, Italy, Spain and Germany), China and the US. Morocco's exports in the sector are relatively low, mainly consisting of wires and transistors destined to the EU. About 30% of Morocco's imports from the EU come from machinery and transport equipment, mainly comprising of motor vehicles and parts, and electrical machinery.

Machinery and transport equipment is a growing sector in **Jordan**, but is still highly dependent on imports. Exports of the sector increased from around \$250 million in early 2000s to \$1 billion in 2007, but imports in the sector are also in a parallel rise, that reached \$3.5 billion in 2007. Jordan's machinery and transport equipments exports mainly consist of TV, radio and transmitters (SITC 7643) to neighbouring countries. On the other hand, Jordan imports road vehicles from the EU (Germany, France, the UK and Italy), Japan and Korea; telecommunication equipment from Finland, Hungary and Germany; and industrial machines from Germany, China, Italy and the US. The positive incentives of the Jordanian government, the ongoing program of privatization, and the opportunities to invest in the Qualified Industrial Zones make Jordan a focus on foreign investment. In this sense, Jordan's fast growing economy offers rapid growth in the machinery and transport equipment sector, especially in telecommunications equipments, automobiles, trucks and their accessories and spare parts.

Machinery and transport equipment sector, including metalworking, manufacture of motor vehicles and railway equipment, machines and equipment, shipbuilding and steel foundry is one of the fastest growing sectors in **Tunisian** economy. The sector has registered an annual growth rate of 14% over the past five years and gained competitiveness in the world markets. In terms of production, two sectors are dominant i.e. transport equipment (components for cars, cycles and motor-

cycles) and metalworking (including steelworks, metallurgy and founding), where each sector constitutes 45% of total production of machinery and transport equipment. The remaining parts of the production activities are machines and equipment (9% of production) and shipbuilding. Exports in the mechanical sector have doubled in the last five years, to 580 million Euros in 2008. The sector's main exports are automotive components, trailers and semis, trucks and bodywork, tooled mechanical parts and prefabricated metal construction. The major export partners of the sector are France, Germany, Italy, Spain, Libya, Algeria and Morocco. Using the advantage of its competitive production costs, technical infrastructure, human capital with job skills and experience and geographic proximity to the European markets, mechanical industry is regarded as one of the most important sectors of Tunisian economy both at present and in the future.

**Israel** has the most developed machinery and transport equipment sector in the region; the exports of the sector have been around \$10 billion since 2000. Israel mainly exports high-tech products like telecommunications equipments, aircraft parts and equipments, electronic circuits, medical equipments, etc. The top destination of exporters of the sector is the US, followed by the EU (Germany, Netherlands, UK and France), China, India and Korea. On the other hand, Israel's imports of machinery and transport equipment were \$18 billion in 2008, which consists of motor vehicles, electrical and telecommunications equipment, industrial machinery and office machinery. Israel imports these products from the EU (Germany, Netherlands, Italy, France), the US, Japan, China and Korea. With the advantage of highly developed human capital, technological infrastructure, high growth of domestic market and favourable business environment, the sector has a great potential and is likely to be a more important factor in the world economy in the near future.

The above analysis indicates that besides being a net importer of M&T from the EU, the MED5 are actually becoming important exporters within the sector. If we look in more detail we see that there are signs of vertical integration within this sector as the EU moves the labour intensive (i.e. the less capital-intensive procedure of the production) and medium-tech part of the production to the MED5 (e.g. the automobile sector). Although the MED5 are net importers of cars, in components and parts and accessories they are fast becoming net exporters to the EU (see Box 2 for a summary of the automobile components and parts market in the MED5).

### **Box 2. The Automotive sector in the MED5**

The automotive market in the MED5 presented a growing trend in the period from 2000 to 2006. In terms of sales, in 2006 the Agadir countries represented 0.6% of the global automotive market and 31% of the African market. In particular, Morocco and Egypt stand out among MED5 countries for their registered growth in sales: 11% for the former country,

and more than 28%, with a peak of 40% growth rate registered between 2005 and 2006 for the latter. This dynamism in sales, coupled with a growing car-density rate and a population of 132 million inhabitants, denotes the growth potential and the attractiveness of the MED5 area for car manufacturers and equipment suppliers. While the annual growth rate was quite weak for Egypt at a rate of about 4% over the period from 2003 to 2006, it was of a medium scale for Tunisia with an average growth rate of 4.76% over the period from 2000 and 2006, and finally extraordinary high for Morocco. In this latter case, in fact, the number of car fleet was multiplied by 1.5 during the decade from 1996 to 2006. Nevertheless, and even though the number of car fleets' production – as represented mainly by passengers' cars which registered a growth rate of 6.3% and heavy-duty trucks and commercial vehicles whose production increased by 6% – has been rising in all the MED5 countries over the same period of time, the car ownership in the area remains generally weak. In fact, the highest figure that has been registered in 2006 among the MED5 countries belongs to Tunisia and amounts to 125 cars over 1,000 inhabitants. The weakness of this datum stands particularly out when it is compared to the figure of 322 cars for South Korea - among developing countries - and even more when compared to the EU average of 586 cars over 1000 people. In line with this consideration, it is not surprising that the average age of the car fleet in 2006 was estimated between 15 (Tunisia's figure) and 20 (Egypt's figure) years in the MED5 area. As a consequence of the aging car fleets, the automotive industry in the MED5 countries is distributed between the original equipment and original spare parts market on the one hand, and the independent spare part market, on the other hand. For example, the car spare parts sales in 2006 accounted for approximately 90% of the total sales turnover of the sector in Morocco, while in Tunisia the number of companies operating in the component and car equipment industry accounted for 63% of the companies operating in all the automotive sector and employ 86% of the workforce in the industry during the same year. Hence, the distribution channels of spare parts, as well as dynamic assembly units markets, are very well developed in MED5 countries with most of their sourcing done in Europe. For e.g. more than 90% of Morocco's importers/distributors' outsourcing is done in Europe. According to the UCOTRA consulting report, due to advantageous (production) factors such as the quality and cost of labour, competitiveness of the workforce and very often government support to upgrade the sector, all MED5 countries have a particularly developed industry of components and parts. In particular, the branch of mechanicals components and their accessories and the electric branch of cables and wiring harnesses are not only the most developed activities in the sector, but they also present an export driven growth, mainly towards Europe. The exports of cables and wiring harnesses to EU accounted for 79 percent and components for steering accounted for 9% of the total parts' exportations to the EU in 2006, when Agadir countries are considered together. Nevertheless the report points out the limitations of the domestic market of each of the MED countries when separately considered: as each country has a small market the producers cannot benefit from economies of scale. Hence, the level of productivity of the assembly units is low – with low technology production implementation – and the production costs remain still high.

As Box 2 describes the motor vehicles is a significant part of the M&T sector in the MED5. Tables 21 and 22 in Appendix 1 examine the weight of motor vehicle export of MED to the world and to the EU. Among the MED5 we can see a clear division between Morocco and Tunisia on the one side and Israel, Jordan and

Egypt on the other side. For both Morocco and Tunisia, the exports from this sector are almost totally absorbed by the EU. On the other hand, the EU takes up less than 0.10 percent of MV exports on average from Egypt, Israel and Jordan (2006). Within the motor vehicles sector, parts and accessories make up a significant part of exports to the EU as indicated above. Although parts and accessories exports of Morocco still account for 78 percent of MV exports to the EU in 2006, this represents a decline from 90 percent in 1996 to the benefit of significant growth of road vehicles exports to the EU which account for 19 percent in 2006 (up from nil in 1996). For the other four countries there has been a significant increase in exports of parts and accessories to the EU from 1996 to 2006: for example the share of parts and accessories exports from Egypt has increased from 18 percent in 1996 to 73 percent in 2006. In contrast with the example of Morocco, passenger cars exports from Egypt to the EU declined from a share of 53 percent in 1996 to 4 percent in 2006. On the other hand, Jordan has already been exporting a steady share of 30 percent passenger cars to the EU since 1996.

As shown above the machinery and transport equipment sector is becoming an important export sector for the MED5, but there are significant tariff barriers that may restrict the growth in this sector. Table 5 in the Appendix 1 indicates that weighted average MFN tariffs in this sector are quite high for Egypt (10 percent), Morocco (13 percent) and Tunisia (16 percent) and Jordan (10 percent) and relatively low but non-zero for Israel (3 percent) and the EU (3 percent). The preference utilization rates are high in the electrical machinery and equipment sector in general: 94 percent of exports in this sector from Egypt were eligible for tariff free market access to the EU, whereas this rate is 90 percent for Morocco and 93 percent in Tunisia, 90 percent in Israel and 37 percent in Jordan. Small percent of exports of MED5 countries in this sector cannot or do not get preferences and hence pay the full MFN rate which ranges from 1.5 percent (for Israel) to 5.8 percent (for Jordan). Detailed data at 6-digit in the Appendix 2 indicates that MED5 may be facing market access problems in this sector. For example, the share of Jordan's exports in electrical machinery to the rest of the world is 1.4 percent where it is nearly zero percent to the EU. Imports from Jordan in vehicles (SITC 87) sector to the EU also are disproportionately low. This may indicate to market access problems. Jordan's revealed comparative advantage in these two sectors is high: 25.5 for electrical machinery and 7.4 for vehicles however, revealed market access (RMAs) indices are both zero. Egypt also faces similar market access problems in its electrical machinery sector (co-axial cable): although Egypt has a strong RCA (5.8) its RMAs are both 0.04 for market access to the EU. Tunisia, despite its strong integration with the EU in the vehicles sector, at a more disaggregate level still faces market access problems in trailer and semi-trailers. The

data also suggest that Israel may be facing market access issues in electrical machinery (transmission apparatus).

The results of the business survey indicate that both MED5 and the EU exporters face several non-tariff barriers in the M&T sector. Both the machinery and electronics sectors from Morocco indicated that technical standards and regulations present a barrier to trade as certification is difficult and costly to obtain. As is the case with all the sectors covered in the business survey in the M&T sector as well customs regulations are cumbersome, bureaucratic and hence cause delays. In addition to these, Tunisian machinery sector find rules of origin complex and the value added (40 percent) too high. On the other hand, the EU exporters in this sector face not only TBT but also problems related to rules of origin, customs regulation, competition policy and public procurement. With specific reference to the motor vehicles sector, the EU faces several non-tariff barriers to MED5: long administrative process in Egypt, differences in technical regulations in Morocco and Tunisia, additional customs duties in Israel, and problems with certificates of no-drawback in Morocco, as well as IPR and public procurement issues. On the other hand MED5 find that technical norms are too strict, compliance tests are expensive, clearance procedure at the customs is long and declaration by product is archaic in the MV sector.

## **Chemicals**

The chemicals sector (which include organic, inorganic chemicals, fertilizers, plastics, pharmaceuticals and medicine according to SITC Rev3 classification) have shown rapid growth in the MED5, both in terms of value added in manufacturing and exports. According to the latest figures available, the chemicals sector contributes 22 percent value-added to the manufacturing sector in Egypt (2002), 10 percent in Israel (2004), 16 percent in Jordan (2005), 14 percent in Morocco (2005) and 20 percent in Tunisia (2004).<sup>57</sup> In terms of growth, the most dramatic increase in value-added in this sector has taken place in Tunisia (7 percent of GDP in 1994). In terms of exports from MED5 to the world this sector has decreased in importance in Morocco: chemicals which accounted for 14 percent of Morocco's exports in 1996 accounted for only 10 percent in 2006 (Table 12 Appendix 1). Jordan and Tunisia as well have observed a decline in the share of their chemicals exports to the world. In terms of MED5 chemical exports to the EU, we can note an increase for Egypt, Israel and Jordan but Morocco and Tunisia have exported fewer chemicals (as machinery and transport equipment exports to the EU have

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<sup>57</sup> Data source: World Bank WDI.

taken over). MED exports of medicaments (300490) to the world was among the region's top 5 exports in 2006 (1.71 percent) however, the share of exports are much lower to the EU (0.47 percent). Overall, the region has achieved substantial growth (up from 0.92 percent) since 1996 and as a result has increased its comparative advantage<sup>58</sup>.

As this classification is rather broad, below we describe in more detail the concentration of each country within the chemicals sector.

The petrochemical sector in **Egypt**, having grown rapidly in recent years, has been one of the key sectors of the economy. The petrochemicals sector represents approximately 12% of Egypt's total industrial production and is currently worth around US\$ 7 billion. A wide variety of plastics, fertilizers and acrylics are already being produced in the country. Egypt's exports of organic and inorganic chemicals, carbon and fertilizer reached 679.2 million USD in 2006/07, up from 443.5 million USD in 2004/05. Egypt has a massive local demand for petrochemicals, where about 1.2 million tons of petrochemicals used to manufacture plastics are consumed by the local market each year. Gulf Cooperation Council (GCC) countries are also consuming increasingly large amounts of plastics. GCC demand is projected to increase to 3.2 million tons annually by 2012, up from 2.3 million tons at present. Regarding the relatively lower costs of natural gas, Egypt is ideally suited to becoming a major supplier of plastics to the region.

Egypt is also the largest producer and consumer of pharmaceutical products of the region with a 2.2 billion USD value in 2008, where the market grew on average 19.4% annually between 2003 and 2008. Egypt is a leading exporter of pharmaceuticals to Arab, Asian and African regions, accounting for 30% of the supply of the Middle East and North Africa (MENA) region, although exports have declined in recent years. Privatization is a growing trend within the Egyptian healthcare industry, thus the sector is undergoing considerable change. Prior to the 1990s, the sector was predominantly state-controlled, with the private sector playing only a minimal role in the provision of healthcare. The private sector now plays an increasingly important role in healthcare provision, emerging largely as a result of the declining standard of public sector care. Currently, 92% of the market relies on locally produced goods and 8% comes from imported products. Of the local manufacturing segment, distribution is split between international companies manufacturing locally (like Pfizer, AZ, Novartis) and local companies. Pharmaceutical products sector demonstrates the typical trend of emerging markets with high growth rates, and also large demand from domestic and regional markets make the sector one of the most promising sectors for investments in the future.

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<sup>58</sup> The RCA increased from 0.53 in 1996 to 0.92 in 2006.

In **Morocco** the chemical and petrochemical industries include rubber and plastics, paints and resins, and pharmaceuticals, as well as the phosphoric acid and fertilizer. Paper pulp is manufactured mainly for export. The pharmaceuticals industry has only around 25 production units but meets 80% of local demand. Turnover in the sector is around 521 million USD. Local production is almost entirely under license and relies heavily on imports of raw materials from the EU. Some 10% of production is exported and represents XXX % of Morocco's total export. The pharmaceuticals industry had attracted attention of global companies from the US and Europe, and the production facilities of sector are mainly owned by these foreign companies.

**Jordan's** pharmaceutical industry is the second largest exporting industry (75% of Jordanian production is exported and Jordanian firms are the biggest pharmaceutical exporters by trade volume in the region). There are 22 factories in the Pharmaceutical sector with five major companies dominating the export business. The sector has modern plants, established regional marketing channels, and a skilled, low-cost workforce. Recently local production grew by 15%. Despite increasing local production, the demand for imported, patented medicines is expected to increase. Jordan itself is a small market, but the region has a fast-growing population that tends to be weighted toward young people. As the population ages in the region, the needs for health care will rise and the opportunities for pharmaceutical makers will similarly rise.

Since **Tunisia's** accession to the WTO, Tunisian pharmaceutical sector has shown a considerable development and has become an important industry in the economy. After signing the TRIPs agreement in 1995 and the end of the transitory period in December 2004, Tunisia recognized pharmaceutical patents, and this generated a major turning point in the Tunisian pharmaceutical industry. Pharmaceutical policy has become centred on the industry of generics instead of licensed drugs, following the privatization movement the number of firms in the sector increased from 12 in 1993 to 30 in 2008, and FDI to the sector rose significantly. Currently, in spite of the improvement of the share of generics, exports of the pharmaceuticals sector remain at a low level, representing about 7% of the total production (the equivalent of 12 to 15 million Euros). The main export destinations are Libya, France, Switzerland, Morocco, Algeria and Iraq.

Pharmaceuticals sector is a developing industry in Tunisia, where qualified local human resources, good infrastructure and an encouraging legal framework for innovation are the main advantages for the future of the sector. Still, limited financial resources, a small market size and insufficient technological capabilities are major weaknesses.



In terms of market access to the EU, weighted MFN tariffs in the chemicals are low and around 2.2 percent. Tariff rates are also low for Israel and Jordan: weighted average MFN rate in Israel is 2.8 and 2.7 in Jordan (Table 5 Appendix 1). On the other hand, Morocco's weighted MFN tariff in chemicals is 17 percent, the highest among MED5, followed by Egypt at 16.5 percent, and 13.2 percent in Tunisia. Within this sector, fertilizers and plastics in Egypt are among top import to the EU. Even though both have obtained high levels of preference eligibility (95.8 percent for fertilizers and 67 percent for plastics), especially in plastics 30 percent of imports were not eligible for any preference, and for the fertilizers 3.6 percent of exports paid the 6.44 percent MFN tariff when entering the EU. For Israel, exports of plastics, pharmaceutical products and organic chemicals are among the top exports to the EU. Although pharmaceutical products have obtained 100 percent and organic chemicals have obtained 89 percent

MFN-zero eligibility, market access for plastics has been poor.<sup>59</sup> Inorganic chemicals and fertilizers are the top two imports from Jordan to the EU (2007): a high percent (12.6 percent) of inorganic chemicals were not eligible for any preference while fertilizers benefited from high preference utilization rate and a very low (0.59 percent) MFN rate. In contrast to Jordan, Morocco and Tunisia have a much higher MFN rate for fertilizers (6.09 percent for the former and 5.8 percent for the latter). Fertilizers are among top imports from both Morocco and Tunisia and both countries enjoy a high preference utilization rate: only 6 percent of imports could not pick up any preference from Morocco and this rate was much higher (12) for Tunisia.

Several products within the chemicals sector in Jordan may have been experiencing market access problems to the EU (Appendix 1). Jordan has a strong revealed comparative advantage in fertilizers and in medicament however as RMAs indicate the access of Jordan's chemical sector to the EU in these two products are below their potential RCA. Medicaments and organic chemical imports from Israel also suggest that market access is below potential. Imports of inorganic chemicals from Morocco and Tunisia are also both below what one would expect their given RCAs. Egypt may also be experiencing market access difficulties to the EU in medicament (SITC 300490) and plastics (SITC 391590); however, Egypt does not have a comparative advantage in the medicament yet.

The results of the business survey suggest that both EU and MED5 exporters report that technical standards and norms are the most important non-tariff barrier in their industry. While the EU finds that technical regulations and documentation in the MED5 is adding to the cost of doing business, MED5 find EU norms diffi-

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<sup>59</sup> 12 percent of plastics imports could not obtain any preference and 4.23 percent had to pay the 5.76 percent MFN rate.

cult to comply with, and they are especially apprehensive towards REACH. The MED5 also experience problems with EU's customs regulations. MED5 exporters find obtaining a certificate of origin too complex and difficult. They also experience problems with customs valuation. Rules of origin is also another area where many find that the requirement to apply for a certificate of origin for the same product (by the same producer) each time the product is exported to the EU cumbersome. It is also reported that when imports are from a new EU member state, Eur 1 is not accepted as a proof of the products EU origin. This problem is aggravated if the product is admitted temporarily and in general EU custom officials are uninformed about what to do.

### **7.3. Services**

Given that services sectors by now account for the major part of GDP in the EU and MED5 and that trade in services has also increased rapidly in the recent past, it is crucial to have a more in-depth analysis of the importance of services trade for both the EU and MED5. Even though the EU-Mediterranean FTAs do not yet cover services, the liberalization of services should be unarguably the most pressing item on the future Roadmap. This is already acknowledged by both sides as bilateral negotiations have been launched in 2008 with Egypt, Israel, Morocco and Tunisia. One qualifying argument for promoting services liberalization is that it is now well documented that services sector is the key to stronger growth and employment performance (OECD, 2005). While employment has been increasing in all services sectors, employment growth in OECD countries over the past decade can be specifically attributed to the strong performance of telecommunications, transport, finance, insurance, business and retail and wholesale trade. This performance was also reinforced with an increase in their productivity due to the increasing use of ICT. Although EU is the world's largest trading bloc in services, the rates of productivity growth in services has been lagging behind the US (Triplett and Bosworth, 2006; O'Mahony and van Ark, 2003). As one of the key messages in the Global Europe communiqué is to make use of trade policy to help improve the competitiveness of EU firms, services liberalization has become one of the key features of the EU's new generation FTAs. Needless to say services liberalization is equally important for the Mediterranean countries as trade and investment in services have been shown to increase economic performance by promoting productivity increases in trading firms and transfer of technology and knowledge (see for e.g. Driffiled, 1997; Girma et al, 2000; Griffith and Simpson,

2001; for the UK; De Backer and Sleuwaegen, 2002, in the case of Belgium; Pfaffermayer and Bellak, 2002, in the case of Austria on MNE performance).

Keeping in mind the positive impact of services sector on growth and employment, there are two important arguments one can make for deeper economic integration between the North and South of the Mediterranean through liberalization of services: first, the EU is by far the world's largest exporter and importer of services, hence a large market for the South Mediterranean both to supply to and to source from at proximity. The EU's total trade in services (exports plus imports) in 2008 was €65.5 billion, with a trade surplus of €75.4 billion. Although services sector has become very important for the EU, still EU exports lag behind goods exports (EC, 2008)<sup>60</sup>. This may be because unlike goods trade, barriers to trade in services are more of a 'behind the border', i.e. regulatory type. If indeed not just market access issues but also regulatory convergence can be achieved through the next round of EU- MED negotiations, a significant increase in services exports from the EU can be expected toward the Mediterranean countries.<sup>61</sup>

Second, although EU has a comparative advantage in several of the services sectors, EU has a trade deficit in services with the Mediterranean countries. Although this deficit is due mainly to one item, i.e. travel services, among the categories of services, other services sectors are also gaining importance in the MED5.

**Table 33. Extra-EU27 trade in services with MED5 (million euro, 2007)**

EU27	Tunisia	Morocco	Jordan	Israel	Egypt	Total MED5
Exports	1,244.0	4,406.9	469.0	3,518.4	2,609.7	12248.0
Imports	3,232.0	2,103.9	427.0	2,853.3	5,700.5	14316.7
NET	(1,988.0)	(2,303.0)	42.0	665.1	(3,090.8)	-6674.7

Source: Eurostat:

EU's exports to the region (MED10<sup>62</sup>) in 2007 were 31.2 billion and imports were 19.3 billion. Examining different categories of services, the EU has a surplus in transportation services, and a deficit in travel services, however other services

<sup>60</sup> European Union international trade in services: Analytical Aspects, EuroStat Statistical Books 2008.

<sup>61</sup> However, it is important to highlight that the value that the EU can get from services liberalization with the MED5 countries have been diminishing due to presence of other preferential agreements with the region. For example Morocco has signed an FTA with the US which largely liberalized its services sector on a MFN basis. Hence not only US services providers but also the EU has de facto access to Morocco now.

<sup>62</sup> Due to lack of data on MED5 trade in services we will refer to the greater area of the Mediterranean region of MED10 (including Egypt, Tunisia, Jordan, Israel, Morocco, Cyprus, Malta, Palestine Territory, Syria and Lebanon).

(including communication, construction, insurance finance, other business services, etc) record the largest surplus among services sectors with its trading partners. The trade deficit in travel services with MED10 is a reflection of the EU's main trends in services: The EU has its largest deficit with Morocco and Egypt among all its trading partners. However, while travel services form the backbone of the services sector in the Mediterranean, it is important to note that MED10 is diversifying also in other services sectors such as transportation, communication and construction services. In fact MED10 has a total trade (exports+imports) of 11.5 billion euro and a trade surplus of 2.7 billion euro with the EU in transportation services<sup>63</sup>. The share of imports from MED10 in EU's total imports accounts for 8.3 percent in transportation services. Exports of MED10 in communications services amount to 9.9 percent, in construction services to 6.6 percent and in government services n.e.s. to 8.4 of EU's total imports in respective sectors. While construction services are another sector where EU has a trade deficit with MED10, it has a trade surplus in the other two sectors mentioned. Other sector in which EU has a strong comparative advantage are other business (surplus of 1.5 billion euro), and to a lesser extent financial (surplus of 349 million euro), and computer and information services (surplus of 314 million euro).

The future of service sector development in the MED5 is particularly promising. As mentioned earlier, one of the sources of productivity growth in the services sector is the use of ICT sectors. If growth in services can be partly attributed to government policies and institutions, increasing use of ICT in services sector may be able to explain the remainder of the increasing importance of the services sector in the MED5 (see Box 3 for a discussion on the ICT sector). The value added of the services sector has been growing in the MED5: the share of services in gross value added was 76.0 percent in Israel, 72.7 percent in Jordan, 56.5 percent in Morocco, 55.2 percent in Tunisia and 48.8 percent in Egypt (Eurostat, 2006). The services trade as percent of GDP has increased in Egypt, Israel, Morocco, and declined in Jordan and have been steady in Tunisia (see Figure 5).

All MED5 have signed GATS, however their commitments remained limited due to poor sector coverage and limitation on horizontal issues. For example, although Morocco made substantial commitments under GATS in 1994 in telecommunications, tourism and certain financial services, its commitments remain limited in insurance and road transport services. Tourism is number one source of foreign exchange, ahead of workers' remittances, and has been positively affected by liberalization in air transport in Morocco Maritime freight transport has also recently been liberalized however there are still state monopolies in postal and rail transport services (WTO TPR, 2009). One of the limitations mentioned by a busi-

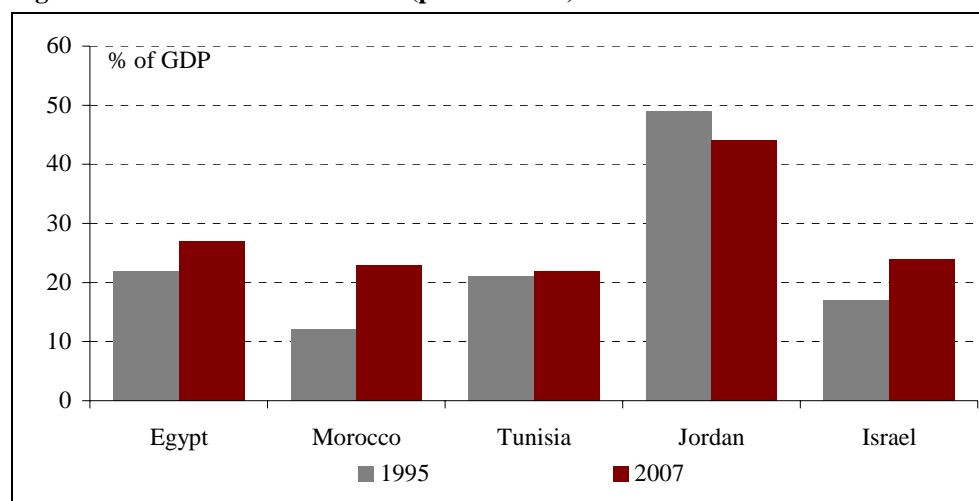
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<sup>63</sup> Eurostat, Med statistics, 2005 figures.

ness survey respondent operating in transport services in Morocco was difficulty in getting visas for Moroccan drivers. This was also mentioned in the latest TPR on Morocco (2009). In one simple example, one can see how important it is to liberalize road transport services for intra-regional integration. Another respondent in transport services indicated that differences in regulation between Morocco (and Egypt) and the EU was the single most significant barrier. An engineering consultancy doing business in Morocco indicated that the process of starting up business in Morocco is slow due to bureaucracy, and that a local partner is often required.<sup>64</sup> Difficulty in retrieving royalties, difficulty in obtaining visas for training staff (mode 4) and limitation on foreign investment in certain sectors in Morocco were also mentioned by several respondents to the business survey. In addition to this, one respondent made the connection between tariffs as a barrier to trade in services: this transport company stated that tariffs, even if low, can be costly as it is time consuming and bureaucratic. Finally a financial services company mentioned exchange rate regulation complexity and the limitation on the number of expatriates (4 expatriates for each 1000 employees) as some of the barriers they faced.

Equity caps, foreign ownership limitations, sectors that are closed to investment, restrictions on the number of foreign national who can be employed, obtaining visas for the expatriates and their families were raised as common barriers to trade in services with MED5. Below we present a brief summary of each country's GATS commitments and some general limitations:

**Figure 5. Services Trade of MED5 (percent GDP) 1995-2007**



Source: WDI.

<sup>64</sup> This is mentioned several times in the business surveys: the need to take a local partner is by no means a legal obligation but a way to circumvent trade barriers.

### Box 3. Information and Communications Technology sectors in Egypt, Morocco, Jordan and Israel

The information and communications technology (ICT) sector is relatively new compared to other well-established business sectors in **Egypt**. However, the sector has shown a significant development in the recent years, and the government, through the formation of the Ministry of Communications and Information Technology has shown its commitment to the development of the sector through numerous incentive building legislations. According to the Global Services Location Index (A. T. Kearney, 2007), which analyzes and ranks the top fifty locations worldwide that provide the most common remote functions, including IT services and support, contact centres and back-office support, Egypt's ICT sector is ranked thirteenth, ahead of all countries in the region. Since 2004, the ICT sector has sustained annual growth above 18% and more than 9.3 billion USD in new investment. The sector generates annual revenues of more than 700 million USD. In 2007, Egypt's total exports from the ICT sector topped US\$ 500 million, which is expected to rise in an increasing pace in the coming years. The Ministry of Communications and Information Technology has set a goal of US\$ 3 billion in annual revenues from the sector by 2010, and is working hard to achieve that target.

The ICT sector in **Morocco** generated a turnover 910 million USD in 2007. Though the number of Moroccan internet subscribers is increasing rapidly, nationwide internet subscription still remains very low. The government aims to double the combined value of the telecoms and IT sector until in 2012. In the sector, the largest share goes to telecoms, where the IT and off shore industries are aimed to develop. According to the Global Services Location Index, Morocco is ranked 36<sup>th</sup>. The index takes three categories into consideration; financial attractiveness, people and skills availability, and business environment. Although Morocco has good index scores for financial attractiveness and business environment, it ranks very low in people and skills availability, which highlights the lack of qualified human capital in Morocco. The IT market in Morocco is still in its infancy and offers great potential for further development.

In recent years, the ICT sector has also gained an important position in the **Jordanian** economy. The sector is growing by 50% annually; the income it generates represents roughly 10% of GDP and it employs more than 6,000 people. ICT has also benefited from the government's push to support its development, through easing investment requirements in the industry, enhancing education in information technology and, most importantly from the point of view of overseas ICT firms, passing legislation to protect intellectual property rights. The booming ICT market has opened many new opportunities. Many software developers or designers of equipment have established companies, while many of the industry's big names, such as Microsoft, Intel, Cisco Systems and France Telecom have also invested in the country.

The Global Services Location Index analyzing and ranking the locations that provide the most common remote functions, including IT services and support, contact centres and back-office support, ranks Jordan 14<sup>th</sup>, only 0.01 points behind Egypt. Jordan has significantly high points from business environment and financial attractiveness, however the availability of skilled labour is considered as weak. Still, Jordan's ICT sector promises a very bright potential for investors.

**Israeli** companies have traditionally been at the forefront of the global Communications industry.

The main source of this competitive advantage lies into the outstanding Israeli existing technology infrastructure. Several are the factors that contribute to the building of such infrastructure. First of all, 60 years of innovation in civilian and military applications have resulted in the emergence of several world renowned communication powerhouses in Israel, along with hundreds of smaller tech companies and over 1,000 active Israeli communications start-ups. Therefore the Defence Industry has been the catalyst for new ICT technologies in Israel and currently, the ICT sector gains an important position in the Israeli economy. Turning to figures, ICT turnover in 2006 was \$ 14.8 billion, and in 2007 it accounted for 17% of Israel's GDP. ICT grew at 10% CAGR (Compounded Annual Growth Rate) over the period between 2004 and 2007 and about the 6.5% of Israel's workforce was employed in the ICT sector. Communications exports in 2007 accounted for 25% of Israel's Hi-Tech exports and 8% of the country's total exports.

Of the approximately 2,000 Israeli start-up companies in 2007, 50% were in Communications (where the recorded growth rate in the number of Communication companies in the period 2005-2007 was of the 30%). To have an idea of the importance of this datum on start-up companies, it is useful to consider that European Union countries combined together had a total of only 700 operating communications start-ups in the same year of observation.

“In brief, Egypt's Schedule of Specific Commitments under the GATS includes commitments on commercial presence and the presence of natural persons for the supply of a number of individual service categories, most notably in telecommunications, construction and related engineering services, financial services, tourism, and transport. Egypt's initial offer in the ongoing multilateral services negotiations provides for an expansion of its schedule of horizontal as well as sector-specific commitments (WTO TPR, 2005).

“Israel's specific commitments under the GATS cover 49 activities out of 161; Israel is a signatory to the Fourth Protocol (on telecommunications services) and the Fifth Protocol (on financial services) to the GATS. Under Article II of the GATS, Israel has listed MFN exemptions on film, video and television programme co-production and distribution; and banking” (WTO, 2006).

“Under its accession to the WTO, Jordan made substantial commitments under the GATS, covering a wide range of services. Nonetheless, restrictions, such as foreign equity limitations or Jordanian nationality requirements, are maintained to preserve Jordanian control or influence. No commitments were made on postal services, railway, and road transport services, or on certain environmental, audio-visual, and business services. Financial services have been broadly opened to foreign competition and the foreign equity limitations in insurance services have been eliminated. The regulatory framework for banking services has been strengthened. Telecommunications services have been liberalized in accordance with Jordan's GATS commitments (WTO, 2009).

“Under the GATS, Tunisia has entered into commitments concerning, in particular, financial, tourism and telecommunications services, mainly by binding measures affecting consumption abroad and commercial presence. Its "horizontal" commitments relate to engagement in commercial activities, investments with majority foreign participation, the presence of natural persons, and foreign exchange controls” (WTO, 2005).

An examination of the GATS commitments of each country in greater detail reveals that the MED5 have only gone through a shallow liberalization in their trade in services. This implies that much can be achieved from further services liberalization that is GATS+, including all 4 modes and covering regulatory convergence.

## **7.4. Conclusion**

In this section we presented an analysis at a sector level. The aim of this section is not only to point out the sectors that face market access problems (both in the EU and MED5) but rather to identify those sectors that are both of economic interest for EU-Mediterranean trade and investment. A synthesis of both quantitative analysis from Phase 1 and qualitative analysis from Phase 2 of this study indicates that textiles and clothing, machinery and transport equipment, chemical and services sectors are the most important ones for future deep FTA negotiations. Although the textile sector is a traditional sector it still accounts for the majority of MED region’s exports to the EU, but its importance is already declining as the region increases its dynamic comparative advantage in more capital-intensive industries. Also the textile industry is moving into higher value-added products category. For example, German textiles industry is using Mediterranean as a production location for textiles used in the German motor vehicles industry. On the other hand, the majority of machinery exported by Italy to the Mediterranean region is mainly used by the textiles industry in MED region.

For the long-term growth of the Mediterranean region, we argue that chemicals and machinery and transport equipment and services are going to be the key drivers. However, improving the quality of human capital and R&D and lack of South-South integration will be present considerable challenges ahead.



## **8. Strength and Weaknesses of the EU-MED Free Trade Agreement**

### **8.1. Introduction**

The aim of this part of the report is to draw upon the preceding sections in order to assess the relative strengths and weaknesses of the current Euro-Med FTA; and from this to draw lessons with regard to further policy options and recommendations which could serve to strengthen the process of integration.

In providing this assessment it is important to bear in mind the key objectives behind the Euro-Med FTA process, and hence to consider the extent to which these objectives have been met. In considering the objectives one can distinguish between the overall objectives and motives driving Euro-Med relations, and more specific objectives directly related to trade and to specific aspects of the FTA process. The overall objectives can be summarised as increasing the level of economic integration of the southern Mediterranean countries with the EU, and between themselves, with the aim of achieving higher rates of economic growth, but within a balanced and sustainable socio-economic framework.

Central to this process then is the relationship between increased trade in goods and services and the impact this can have on economic development and growth. It is important therefore to be clear about this possible relationship and then to relate this to the process of Euro-Med relations. The relationship between integration and economic growth is complex and operates with regard to both improved export opportunities, and with regard to the liberalisation of the domestic market. With regard to increased export possibilities the hoped for linkage is that improved access to third country markets, leads to higher levels of exports and therefore imports (for example on the basis of comparative advantage). This may then enable countries to develop more efficient industries and export more products which they already produce and export (the intensive margin) and/or to develop new industries and new exports (the extensive margin) therefore enabling diversification. Expansion of trade at both the intensive and extensive margin could enable further exploitation of economies of scale, and more investment. Increased growth and sustainability is then derived in good part from the increases in efficiency (productivity) arising from the preceding as well as from technology transfer and increased competition. On the import side domestic liberalization once again can

allow for improved possibilities for specialization according to comparative advantage, can have a strong pro-competitive effect, can give firms access to better and cheaper intermediate inputs, can encourage greater investment and once again contribute to higher rates of economic growth.

Of course these are *possible* channels which may or may not occur. From the perspective of trade policy, and hence from the perspective of the Euro-Med FTA, the extent to which they do or do not will depend on a number of factors.

- First, clearly for trade and greater economic integration to be able to have such impacts it is important that barriers to trade are removed. Here it is useful to distinguish between policy measures applied at the border (quotas and tariffs), other border barriers (e.g. customs procedures), and behind the border barriers (that include but are not limited to such as differences in regulatory regimes, standards, etc). The greater is the removal of such barriers the greater is the likelihood that the changes in incentives for economic agents will be sufficient to induce greater economic growth and development. Hence in assessing the strengths and weaknesses of the Euro-Med FTA process it is important to examine the extent to which the Association Agreements and any Action Plans agreed under the European Neighbourhood Policy can lead to the dismantlement of such trade impediments. This is in terms both of what is in principle agreed and in terms of implementation. Here it is also worth emphasizing that the EU's own experience is that "simply" eliminating all border barriers and establishing a free trade area is a long way from creating an integrated economic zone. The level and nature of deep integration will be a key factor in determining the extent to which this is achieved and in turn the extent to which the Euro-Med partner countries benefit from the process,
- Secondly, the extent to which the trade liberalization is discriminatory is likely to be important. This is partly because as is well known preferential trade liberalization results in both trade creation and trade diversion (and possibly also with regard to investment), where the former is welfare improving but the latter is welfare decreasing. Leaving aside longer run growth effects it is possible, therefore, that in contrast to unilateral or multilateral trade liberalization, that preferential trade liberalization may not increase welfare, and this too needs assessing. In this context the issue of rules of origin needs highlighting. Preferential trade liberalization requires that rules of origin be clearly defined in order to ensure that it is only the preference receiving countries that benefit from the preferences granted. As is well documented across overlapping preferential trade regimes rules of origin can be constraining and fail to promote intra-

regional trade, and instead encourage more bilateral hub-and-spoke trade. The role of rules of origin in the Euro-Med process therefore also needs addressing.

It is worth noting that even if “all” the border and behind the border trade barriers are successfully removed, the ability for countries to benefit from these enabling conditions will depend on the economic conditions within each country, and on the institutional, regulatory and physical infrastructures which are in place.

The remaining part of this section of the report therefore focuses more closely on the two bullet points outlined above. We first outline what we see to be the strengths and weaknesses in the current Euro-Med FTA process, and in so doing we draw upon the analysis of non-tariff barriers in section 5 of the report, on the assessment of the trade and welfare effects of Euro-Mediterranean integration in section 3 of the report, and on the survey / case study in section 6 of the report. We then go onto detailing some key recommendations.

## **8.2. Identifying successes and failure**

The ultimate objective of the Euro-Med FTA is to have a free trade area between the EU and the signatories of the 1995 Barcelona process by 2010. The starting point for this was the Association Agreements between the Mediterranean partner countries and the EU and this was then reinforced under the European Neighbourhood Policy with several countries agreeing Action Plans with the EU. As can be seen from Table 1 in section 2 of the report on the face of it considerable progress has been achieved with the agreements having been signed and in force with seven countries, as well as the EU-Turkey Customs Union. In terms of the discussion earlier this process of liberalization involves the Mediterranean partner countries asymmetrically opening up their markets to imports of (largely) industrial products from the EU. The asymmetry arises as the Mediterranean partner countries already had duty free access to the EU for most industrial products under preceding arrangements. In principle, this clearly represents an important step forward in the Euro-Med FTA process, and for most of the Mediterranean partner countries the EU is an extremely important trading partner as identified in Section 3 (see also Table 7, Appendix 1).

The preceding focused on bilateral trade relations between the EU and the Mediterranean partner countries. However, the Euro-Med FTA is supposed to be much more than simply a series of bilateral, hub and spoke, arrangements. Instead it is meant to achieve a free trade area between all the partner countries. Here, it is

clear that there is a substantial way to go even if we just focus on shallow integration and border measures. Hence, as documented in Section 2 of this report the degree of integration between the Mediterranean partner countries themselves is somewhat limited. Some progress, in principle, has been achieved through the Agadir Agreement, PAFTA, and through the signing of several bilateral such as between Morocco-Turkey, and Egypt-Turkey. Although it is early days, possibly the key chance for success here lies with the successful implementation of the Agadir Agreement in terms of the industrial goods tariff liberalization schedule and in terms of the adoption of the Pan-European rules of origin.

Despite the ongoing trade liberalization process, the analysis in this report suggests that there is little evidence of any particular reorientation of trade towards the EU or of any substantial increase in trade between the Mediterranean countries themselves. For example, with regard to imports, for none of the Mediterranean partner countries over the period 1996-2006 do imports from the EU rise by faster than imports from the World. Indeed if we just compare the growth of trade with the EU, and with all other non-EU, the average growth of imports (excluding petroleum) from the EU is 6.96%, and the average growth of imports from the rest of the World (excluding petroleum) is 12.83%, and similarly with regard to exports (see Table A.1 and A.2, Appendix 1). Similarly out of 12 countries for which data was available the increase in non-oil exports within the region is greater than the increase in exports to the rest of the world (and also excluding the EU) only in five cases (Albania, Algeria, Israel, Mauritania and Syria), and the increase in regional imports is greater than imports from the rest of the world also only in five cases, though the country composition is somewhat different (Albania, Egypt, Israel, Jordan, and Syria).

As well as looking at changes in total trade, one can also look at changes in the composition of trade. The exploitation of comparative advantage would suggest that initially similar countries would become more dissimilar over time. Our analysis suggests that for the Mediterranean partner countries there is little evidence of initial similarity, and even less evidence than of changes in similarity driven by comparative advantage (Table 25, Appendix 1).<sup>65</sup> In contrast there is slightly more evidence of *increased* similarity in the composition of exports over

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<sup>65</sup> Hence, in 2006 there is only one pair of countries (out of 66 possible pairings) where the overlap in exports is greater than 40%, only one where the overlap is between 30-40% and 14 cases where the overlap is between 20-30%. If you consider all those cases where the degree of similarity in 1996 was greater than 20%, it declined in only 5 cases. The only significant decline was where the initial overlap (between Tunisia and Morocco) was the greatest at 47%, and where the degree of overlap declined by nearly 5% points over the period. This would thus appear to be the only case where there is any significant evidence of increased inter-industry trade.

time, which might give rise to and be a reflection of greater possibilities for intra-industry trade within the region (Table 25, Appendix 1)<sup>66</sup>. It is interesting to note that the role of the Agadir countries here. This could indicate the possibility for greater intra-industry specialization between these countries, but given the lack of implementation of the agreement over this time period, is not a reflection of the impact of the agreement itself. It is therefore unlikely that even bilateral free trade between the EU and the Mediterranean partners will be achieved by 2010, let alone that the entire region will constitute a free trade area.

If we are considering therefore the impact of the Barcelona process and the move towards a Euro-Med FTA on existing patterns of trade flows, than the conclusion has to be that there is very little direct evidence of much of an impact to date. Having said that it is important to note that there is no obvious counterfactual here. For example, when looking at the growth of total imports and exports, it is possible that both bilateral trade with the EU and trade within the region would have grown by much less in the absence of the Barcelona process. Nevertheless, the *prima facie* evidence would appear to be that the impact has not been great. There are several possible explanations for this each of which is likely to play a part:

- With regard to North-South trade relations, by 2006 for most of the partner countries the process of liberalizing their tariffs with respect to the EU was far from complete, and therefore it is almost certainly “too early” to find evidence of a trade impact. The agreements typically have quite long transition periods ranging to up to 12 years for the dismantling of tariffs (for instance Egypt for whom the agreement came into force in 2004 has 12 years to eliminate tariffs on EU imports for goods listed in Annex III, 9 years for Annex III goods and 4 years for those in Annex II), and where typically the most sensitive sectors have the longest period.
- That either the pace of tariff liberalization has not proceeded *de facto* at the pace that was initially intended / agreed, or that the list of exceptions is sufficiently significant to diminish the possible positive effects. For example, in Table 6, Appendix 1 we show that by 2005 the EU had duty

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<sup>66</sup> Hence, if we look at where the increase in the export similarity over 1996-2006 has increased bilaterally by more than 2.5 percentage points (which is already a very low threshold), than we see that Jordan shows the biggest changes with it's exports increasing in similarity with 8 out of 12 Mediterranean partner countries. For Egypt and the Lebanon this occurs in 7 cases, and for Turkey and Algeria four cases. The biggest increase in export similarity, where exports become more similar by more than 10 percentage points, is for Egypt (with each of Jordan, Lebanon and Libya); and for Jordan (with each of Morocco, Tunisia and Turkey).

free access in only 39.19% of tariff lines into Tunisia, and had a preference margin in only 63.75% of tariff lines - yet Tunisia had commenced implementation of their Association Agreement in 1998. Similarly for Morocco the Association Agreement came into force in 2000, and by 2008 the EU had duty free access in only 40.32% of tariff lines, while it had a preference margin in 87.59% of tariff lines. For both Morocco and Tunisia there is again little evidence of a reorientation of imports from the EU. For Morocco the change in imports from the EU over 1996-2006 was 7.67% and from the rest of the world 15.71%, and the corresponding figures for Tunisia are 5.94% and 10.87%.

- The period under consideration in this study coincided with MFN liberalization (Table 3, Appendix 1) that by itself reduced tariffs somewhat and generated an all round increase in trade that would have led to more trade with third countries. The evidence however, does suggest that while there has been MFN liberalization, MFN tariffs remain comparatively high. For example, if we take Israel the process of de facto liberalization with the EU has resulted in duty free access for the EU in 95.42% of tariff lines. When we look at the change in imports we see that (non-oil) imports from the EU rose by 2.06% while from the rest of the world by over 8%. It seems plausible to assume that this is driven by the closer integration of Israel with the United States also over this time period.
- Non-tariff barriers or general economic conditions in the Mediterranean partner countries remained maybe too restrictive to counteract any trade enhancing impact of the decline in tariffs.

In terms of sectoral coverage, the substantial exception from the Association Agreements, related to agriculture and services. Agriculture was included in both Agadir and PAFTA. On the side of the Mediterranean partner countries the Association Agreements allowed for limited liberalization of agriculture and fisheries and largely with regard to processed agricultural products. On the EU side there was greater liberalization but still with a number of exceptions. For the partner countries agriculture is important in terms of domestic levels of employment and activity. For example the share of agriculture in value added in 2005, and/or in exports (excluding petroleum products) in 2006 respectively (see Tables 1 & 20, Appendix 1) was significant for Egypt (14.9%, 12.8%), Morocco (13.3%, 13.9%), Syria (19.7%, 49.7%), Tunisia (23.7%, 9.2%), and Turkey (10%, 8.6%). While in aggregate agriculture is significant for a number of the countries, it rarely figures as one of the top 15 export items, and overall the share of agriculture in exports has declined from comprising 12.62% of Mediterranean partner country exports to the world, to 8.26% (Table 20, Appendix 1). In addition to the continued existence

of high tariffs, SPS measures are particularly important with regard to agricultural products. For example, our diagnostic statistical analysis in Section 3 suggests their may be prima facie evidence of some barriers to accessing the EU market in sheep, citrus fruits, rice, fish, and tomatoes. Clearly greater liberalization of trade in agriculture both with regard to tariff and non-tariff measures should be an important step in moving forward the process of Euro-Med integration. The ongoing negotiations on agriculture with Morocco and Tunisia (they have already been concluded with Jordan, Egypt and Israel) are therefore to be welcome (though there are apparently some difficulties in initiating implementation) and agreements with further countries should be pursued.

In addition to border barriers such as tariffs it is important to consider the extent of behind the border barriers, such as those relating to standards (including sanitary and phyto-sanitary), trade facilitation, competition policy, government procurement and intellectual property rights. These were discussed in Section 5 of the report and additional insights on this were provided by the Survey results. From this it is clear both that an important degree of progress in a number of countries, and with respect to particular areas has been achieved. However, equally clearly remain a number of significant barriers. These are briefly summarized below:

- **Standards - general:** the lack of credible and comprehensive conformity assessment systems (testing, surveillance, inspecting, auditing, certification, registration, and accreditation); differences in labelling and packaging requirements; differences in customs testing procedures; weak market surveillance systems; and the lack of flexibility in choosing international standards.
- **SPS:** additional inspection procedures for particular products in particular countries and complications in issuance of specific certificates with regard to religious requirements; weak market surveillance systems; shelf-life procedures; application and continuance of SPS measures for specific products; complicated country specific SPS measures and multiplicity of systems and documentation; lack of national treatment; high compliance costs needed to access the EU market
- **Customs:** disputes between importers and customs authorities regarding application of the Customs Valuation Agreement; lack of transparency and information on duty draw-back and temporary admission schemes; additional surcharges on trade; applied tariffs exceeding bound tariffs; rules of origin and lack of cumulation opportunities between the Mediterranean partner countries; delays in customs procedures; application of measures which are inconsistent with TRIMS.

- **Competition Policy:** significant differences in competition law across the partner countries; lack of implementation of competition law; state aid provisions that differ substantially from those in the EU; lack of technical expertise and capacity;
- **Government Procurement:** lack of information and transparency with regard to bidding procedures, information with regard to contracts and outcomes; use of exceptions to competitive tendering; offering price premium to local suppliers.
- **Intellectual Property Rights:** enforcement of IPR laws and regulations; weak provisions in the legislation; low levels of public awareness regarding IPR related measures; lack of technical capacity.

What emerges from our report is that the Association Agreements spelled out a number of commitments (for example with regard to tariff barrier removal) and cooperation clauses (with regard to many of the behind the border issues identified above). However, these have not been introduced, implemented and enforced as much as expected. There are a number of reasons for this. In part this is because the primary requirements in the Agreements related to tariff liberalization, and most of the rest of the agreement were statements of intent. Closely related to this in good part the ambitions of the Agreements were not matched with the capacity to put in place the national legislative, institutional and infrastructure needed for their full implementation. These issues of capacity relate both to financial resources, and technical capacity. In certain cases too, there may have been a lack of bureaucratic and political will, which is perhaps illustrated in the responses from the Business Survey that, for example, list overly bureaucratic approaches to the issuance of certificates of origin, the lack of clear dedication to agreed upon standards for a number of products, etc.



## **9. Policy Recommendations**

### **9.1. Recommendations for the Roadmap till 2010 and beyond**

The preceding has highlighted the key strengths and weaknesses of the current Euro-Med FTA process. The strengths are the reductions in tariffs which have been agreed, as well as those already implemented, the ambition which is contained in the Association Agreements (with regard to both economic and non-economic elements), as well as the more recent agreements on agriculture. The weaknesses concern the slow nature of the process, the lack of geographical and sectoral coverage with regard to liberalization, the lack of formal commitments with regard to many of the ambitions, and insufficient attention to facilitating and realizing the necessary improvements in domestic capacity in order to realise the more ambitious elements of the process. Hence, while on the one hand formally much has been achieved with the signing of the Association Agreements, the signing of individual Action Plans with several countries, and with the Union of the Mediterranean, this has yet to translate into a really meaningful impact on trade and growth.

In this part of the report therefore we focus on identifying the key areas which we suggest need focusing on in order to significantly move the Euro-Med FTA and integration process further forward. In this context it is useful to bear in mind the draft recommendations from the Euro-Mediterranean Trade Roadmap till 2010 and beyond. Those key (draft) recommendations are:

1. Reinforcing the network of free trade agreements in terms of country and sectoral coverage by including agriculture, processed agriculture and fisheries; establishment of a dispute settlement mechanism; Agreements on Conformity Assessment and Acceptance of Industrial products in selected sectors; reinforcing the Pan-Euro-Med system of cumulation of rules of origin.
2. Initiatives to strengthen the Euro-Med trade partnership by: a Euro-Med trade and investment facilitation mechanism; enhanced cooperation with the business community on Euro-Med trade and investment relations; enhanced cooperation in fighting piracy and counterfeiting; enhanced sectoral cooperation; strengthening cooperation and dialogue on trade defence

instruments; enhance interaction and information between small and big enterprises.

3. Moving beyond 2010 through: enhanced deeper integration; moving beyond trade in goods to cover services, investment and regulatory issues in South-South free trade agreements; recognizing the complementary role of the European Neighbourhood policy and the Union for the Mediterranean

Much of what is suggested in the Roadmap is sensible, and is highly consistent with the recommendations made in this report. In the context of this report and in considering possible recommendations we suggest that it is useful to distinguish between two different categories of measures that would promote deep integration. First those measures which are required for market access – and this relates to tariffs, rules of origin, and standards/SPS. Second those measures that if implemented correctly would improve the business environment and thus have an impact on North-South and South-South trade and investment. This includes measures directly aimed at increasing the contestability or competitiveness of markets which are designed to reduce monopoly power, reduce allocative inefficiency, and through this designed to increase technical efficiency (productivity).

## **I. Measures required improving market access: A must for deep integration**

1. Increase the geographical scope of integration and trade barrier removal between the Mediterranean partner countries themselves. One way of achieving this is through the widening of existing agreements such as Agadir or PAFTA. An alternative is to encourage more bilateral agreements between partner countries, such as the Morocco-Turkey, or Egypt-Turkey agreements.
2. Clearly, however, the greater the number of bilateral FTAs there is a greater likelihood of a spaghetti bowl of agreements with slightly different provisions, and thus the need for mechanisms such as rules of origin to ensure that only the member countries benefit from any preferential provisions. We would therefore:
  - a. Encourage the Euro-Med countries to introduce MFN clauses into their existing FTA agreements, and into any new agreements. This would mean that whatever concession is granted by a given Euro-Med country to another Euro-Med country should also be granted to all other Euro-Med countries with which they have an FTA. This would help to minimize the spaghetti bowl problem outlined earlier.

- b. Suggest a review of the operation of the Pan-Euro-Med system of diagonal cumulation. Any FTA requires rules of origin in order to prevent trade deflection. Within a system of multiple FTAs which is the Euro-Med reality and is likely to be for some time to come, it is particularly important to have rules of origin which are as simple as possible. The aim should be to structure the system to allow preferential partner countries to maximize their use of preferences, while not being overly restrictive and thus increasing firms' costs such that the preferences end up being insufficiently utilized. A major step forward with regard to this was the introduction of the Pan-Euro-Med system of diagonal cumulation. While this was a major step forward, it is not unproblematic<sup>67</sup>. Reinforcing the existing system and facilitating greater use as suggested in the Roadmap is therefore to be encouraged. We would also suggest that attention should focus on:
- Streamlining the cumbersome procedures that presently appear to guide some of the institutions issuing certificates of origin.
  - Providing an appeal mechanism for exporters who encounter problems in getting their certificates of origin honoured in the importing countries.

There are also several ways in which rules of origin could be further simplified which it is important to explore<sup>68</sup>. These include,

- Maintaining the existing system of diagonal cumulation but relaxing some of the underlying rules (be this with regard to minimum domestic value added, specific processes, or changes in tariff classifications);
- Simplifying the *existing* system of diagonal cumulation by allowing some form of MFN or preferential partner treatment in rules of origin;
- Recognizing that rules of origin need only apply where the preference receiving country has a lower tariff on the intermediates used in the production of the exported good;
- Moving to a system based entirely on a value added criterion, which together with the introduction of value added tariffs would allow considerably more cumulation than is currently the case.

Increase the sectoral coverage within the Euro-Med FTA process. This applies primarily with respect to agriculture, processed agricultural and fisheries produces

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<sup>67</sup> For example, it is well known that many of the difficulties in signing and implementing the Agadir Agreement were to do with the difficulty in agreeing over the application of the Pan-European cumulation rules on cumulation.

<sup>68</sup> See Augier, Lai-Tong and Gasiorek, 2007 for a more detailed discussion of some of these issues

as well as services; and should be addressed in the Association Agreements as well as with regard to South-South integration. The potential contribution that liberalization in services can make to GDP growth in the Mediterranean region is clearly spelled out in Muller-Jentsch (2005). That study gives priority to reforms in the areas of transport, telecommunications, the distribution sector and financial services. FTA's can contribute to this reforms but unilateral reforms, for which EC support can be mobilized, are noted to be more promising.

3. There is also a need for EU assistance to enhance South-South trade among the Mediterranean partner countries. This can take the form of assistance in ensuring that the partner countries comply with policies and regulations that are in line with their FTA and WTO obligations when trading with each other. The EU could also assist by helping the partner countries to establish a monitoring mechanism for non-tariff barriers affecting their intra-regional trade, which could perhaps be achieved under the auspices of the proposed trade and investment facilitation mechanism.
4. Support MFN negotiations to achieve a lower tariff for all trade barriers. This is the best method to reduce the scope of welfare reducing trade diversion that bilateral and regional trade agreements contain. For example the evidence suggests that the Association Agreements, and in the case of Turkey, custom union, could generate significant trade diversion with regard to Lebanon, Israel, Egypt, Turkey and Mauritania (Table 13, Appendix 1).
5. Standards and SPS: This is primarily an issue of market access. If firms cannot either conform to the required standard in their desired export market, or cannot prove that they have produced to the required standard, than they simply cannot access the given market. As identified elsewhere in this report there are a number of issues with regard to standards and conformity assessment which it is very important for the Euro-Med process to address. This applies with regard to both technical and financial assistance each of which could greatly contribute to deeper integration by assisting the Mediterranean partner countries to approve agreed upon standards and even more importantly to help governments in enforcing these standards with a greater degree of accuracy and predictability. Areas that deserve priority attention include:
  - a. Support initiatives to further harmonize the industrial standards and SPS standards across countries; this would include labelling and packaging requirements that have been identified a serious NTB for trade between SMC and the EU and amongst SMC;

- b. Reach an Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA) on bilateral basis with all SMCs, and we therefore welcome the inclusion of this in the draft Roadmap;
- c. Upgrade the level of conformity assessments, testing and procedures as well as infrastructure so as to improve predictability of the results and reduce delays in completing trade transactions. This should be based on the findings of a thorough analysis of the gaps between EU and Mediterranean partner country conformity assessment procedures and infrastructures;
- d. Set guidelines for conducting verifications, import checks, certification, and administrative provisions for imports;
- e. Strengthen market surveillance systems, that in most countries, with the exception of Israel and to a lesser extent Jordan, are still in their infancy; this would be expected to substantially contribute to intra-SMC trade;
- f. Enhance the capacity of SMCs to actively participate in standards and SPS related international fora;
- g. Enhance transparency and predictability with respect to the use of standards in those countries where the use of multiple standards is an option with the objective of clarifying these policies for the trader and enforcing discipline with the inspection institutions so as to provide greater certainty as to what standards will apply so as to speed up the clearance of goods at the border; such transparency will be aided by the publication and update of these standards;
- h. Enhance the capacity of SMCs to implement the traceability requirements of the EU in the SPS area;
- i. Agreeing on a detailed process of equivalence determination for standards and SPS certificates in specific fields that are of trade importance for EU and SMCs;
- j. Activate the usage of systems as post-audit market surveillance while at the same time helping SMCs to establish early warning systems;
- k. Establish mechanisms for monitoring the misuse of SPS measures on the borders for EU and other SMCs trade. This could form part of the Euro-Mediterranean trade and investment facilitation mechanism which has been proposed as part of the draft Roadmap and which once again we welcome<sup>69</sup>;
- l. Establish mechanisms to ensure that information related to systems as Rapid Alert System for Food and Feed (RASFF) reach the exporting

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<sup>69</sup> In this context it is also worth noting the recently launched Global Trade Alerts initiative which is complementary to proposed trade and investment mechanism. See [www.globaltradealert.org](http://www.globaltradealert.org)

- community in the Mediterranean partner countries and establishing a similar system with technical support from the EU for these countries;
- m. Assist the SMCs to streamline their procedures in accordance with their WTO and EU Association Agreements and improve their transparency so as to enhance intra-SMC trade as well as improving their domestic market monitoring and surveillance.

With regard to standards and SPS it is important to note that the impact is likely to be very different on those firms that are able to *benefit* from the enhanced market access as opposed to firms who must merely *respond* in the domestic market<sup>70</sup>. The harmonization of standards, for example, means that exporting firms that can meet higher standards gain (or do not lose) market access, domestic firms may face higher costs, and consumers may pay higher prices (but may also get higher quality). Hence the importance of standards does need to be considered on a case by case basis and notably depending on the importance of the product/sector in a given countries exports. If the final aim of deeper integration is better market access, than harmonization is more likely to be the route to pursue; however if the final aim of deep integration is to improve the domestic business environment, then harmonization is not necessarily the best alternative and maybe cooperation is better. It is therefore important that agreement on the importance of given measures is mutually agreed in order to ensure that cooperation and effective policy measures can then be taken, and that they meet the needs of the country and industry concerned. Some of these issues might therefore also be dealt with under the draft Roadmap remit of enhanced sectoral cooperation.

## **II. Measures to improve the business environment: Highly recommended for deep integration**

In addition to facilitating improved market access the Euro-Med FTA is much more likely to achieve its long term objectives, to the extent that it is successful in contributing to the creation of a better business environment. As noted in the Doing Business publication of the World Bank these issues range from formalities required to create and close a business to taxation and property rights. The Road Map for 2010 and beyond is a good opportunity to refocus the agenda and ensure that mechanisms are put in place to monitor the implementation of commitments

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<sup>70</sup> For a more detailed discussion see Ghoneim et.al, (2008) “Examining the Deep Integration Aspects of the EU-South Mediterranean Countries: Comparing the Barcelona Process and Neighbourhood Policy, the Case of Egypt”, Femise Report.

made and ensure that resources are available to assist Members in this endeavour. A major weakness of the current Association Agreements is that insufficient attention has been given to strengthening the implementation capacity of the MED countries. Remedying this situation by providing adequate technical and financial assistance may deserve more attention in the Road Map than emphasizing a set of new strong commitments that may be beyond the capacity of many MED countries to implement.

6. In this context the proposed trade and investment facilitation mechanism (TFM) could play an important role. The creation of such a TFM should go beyond providing market access information, early warning, and complaint register and discussion forum as mentioned in the Draft Roadmap for 2010 and beyond. The TFM could also be tasked with promoting awareness of the advantages to the business community of the Association Agreements, monitor progress with the implementation of the FTA Agreements and the technical and financial assistance promised by the EU and its use in the Mediterranean Partner countries. Such a TFM could start with focusing on particular sectors that deserve more immediate attention in light of their importance in MED exports and prospects for the future such as textiles and clothing, motor vehicles and parts, chemicals. Where barriers to trade, productivity improvements and investment are identified, the TFM could draw the attention of officials to seek and enact possible remedies, as well as going beyond simply registering complaints by participate in the conflict resolution process, according to agreed guidelines. The TFM should operate in a very different manner from traditional trade promotion agencies—competitive recruitment, tight action program and outside monitoring of results—and work closely with the business community.
7. Customs and Trade Facilitation:
  - a. There are substantial differences between the Mediterranean Partner countries in the time it takes to finalize customs procedures, even though many SMC have initiated significant customs reforms. These differences are due to the intervention of the various border agencies. A systematic review of the time it takes for goods to cross the border in the different Mediterranean partners and what agency and what procedures in the various agencies cause these delays could be conducted and assist in setting up a reform agenda to deal with the bottlenecks identified. EU support could contribute to the preparation of these diagnostics and the implementation of the action plan.
  - b. The Doha Round of trade negotiations, which was recently suspended, has established a clear agenda on trade facilitation measures—pertaining to

the border crossing procedures of all border agencies-- on which there is little or no disagreement. The Mediterranean countries with EU support could initiate the reforms that were there proposed and thus kick start these reforms. To a start it would appear that support for the consistent implementation of the WTO valuation agreement, improved post-clearance audits and support for the protection of intellectual property rights are three areas that are likely to benefit from early and systematic support.

8. Competition Policy:

- a. Support the process that would lead to an agreed upon competition policy – including state aid -- that takes into account the differences in economic development, social and political structures between the Mediterranean Partner countries and the EU.
- b. Enhance the capacity of competition authorities in the Mediterranean partner countries to promote competition as per the Association Agreements. This will include support for the adequate training of personnel, the necessary monitoring mechanism and other means to undertake fast and accurate investigations and launch corrective measures;
- c. Investigate new potential for cooperation among sectoral regulators between the EU and the Mediterranean partner countries and among the partners themselves; the regulators in areas such as public utilities and telecommunications deserve special attention; cooperation in terms of twining projects (already in place in some areas) could be expanded. The main emphasis here could be on the transfer of EU knowledge and expertise in managing such sectors (e.g. electricity, water, and telecommunications) to Mediterranean partners.
- d. Introduce new forms of cooperation (positive and negative comity agreements among EU and Mediterranean partner competition authorities.

9. Government procurement

- a. Transparency, openness and competition in government procurement can help in improving the business environment, both in terms of the costs of goods being supplied but also in terms of economic governance. Technical and financial assistance in this regard and in assessing an appropriate pace of reform where relevant would be desirable. For certain countries, there may also be benefits in becoming member of the WTO Government Procurement Agreement (GPA), but this would need to be assessed on a country by country basis;
- b. In the meantime aim at sectoral and bilateral agreements between the EU and the Mediterranean partners. This approach could achieve some of the



major benefits from adherence to the GPA while taking into account the sensitivity of some sectors in particular countries;

- c. Assist the objective of transparency in public procurement by assisting government to publish the criteria used in national procurement legislation and practices;
- d. The EU could strive to obtain the same rights granted to American firms under the different FTAs, memorandum of understandings, and offset agreements in their trade negotiations with the Mediterranean partners.

#### 10. Intellectual Property Rights

- a. Providing technical assistance to strengthen the capacity of Mediterranean partner countries to monitor violations of TRIPS provisions, and enhance their enforcement capabilities including upgrading of courts and judges responsible for handling TRIPS related cases; a flexible approach should be investigated that avoid increasing prices of essential goods such as medicine and basic educational copyright products;
- b. Providing technical assistance to amend national laws with the objective to ensure compatibility with TRIPS in areas where SMCs still adopt non-complying measures;
- c. Initiate or improve the regional cooperation between the various national bodies in the Mediterranean partners responsible for IPR enforcement; such regional cooperation would be very beneficial as the issues faced by the Mediterranean Partners in fighting counterfeit and pirated products are very similar.

#### 11. Investment

It is important to bear in mind that successful trade and integration strategies need to be closely allied to improved investment in order to yield longer run growth impacts. This is in order to allow for greater innovation, technological improvements, externalities, and scale economies. A positive investment policy should allow for (i) strong and coherent actions to encourage private initiatives; and (ii) the creation/improvement of the underlying infrastructure (electricity, water, transport, and information and communication technology. This can be particularly important for small and medium sized enterprises. The weaknesses in the Mediterranean partner countries in this regard are clearly identified in the World Bank surveys on the investment climate. We would therefore recommend:

- Technical and financial assistance in identifying on a country by country basis what the principal obstacles to investment appear to be. Where these are directly linked to issues of infrastructure, or business support to assist in formulating policies to address those blockages.

- Reinforce direct support to investors by putting in place One Stop Shops where investors can obtain relevant information and support with regard to investing and establishing a business in the country concerned.
- Organize a detailed review of the “Doing Business” and “enterprise-surveys” scores of individual countries so as to prepare a remedial action plan aimed at improving these scores. Such action plan could be supported by the EU but would need to be grounded in the national desire to improve the scores and be prepared in close consultation with the business community.

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# CASE Network Reports

## Economic Integration in the Euro-Mediterranean Region

### APPENDICES

Luc De Wulf (Ed.)  
Maryla Maliszewska (Ed.)  
Rym Ayadi  
Moez El Elj  
Michael Gasiorek  
Ahmed Farouk Ghoneim  
Selen Guerin  
Peter Holmes  
Hammad Kassal  
Javier Lopez Gonzalez  
Mahmut Tekce

No. 89/2009



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# **Appendix 1. Assessing the Trade and Welfare Effects of Euro-Mediterranean Integration**

# Introduction and Summary

This chapter analyses the welfare effects of a Euro-Med 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<sup>1</sup>. 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 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 de-

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<sup>1</sup> 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.

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.

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<sup>2</sup>. 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

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<sup>2</sup> This is sometimes referred to as trade deflection in the literature

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.

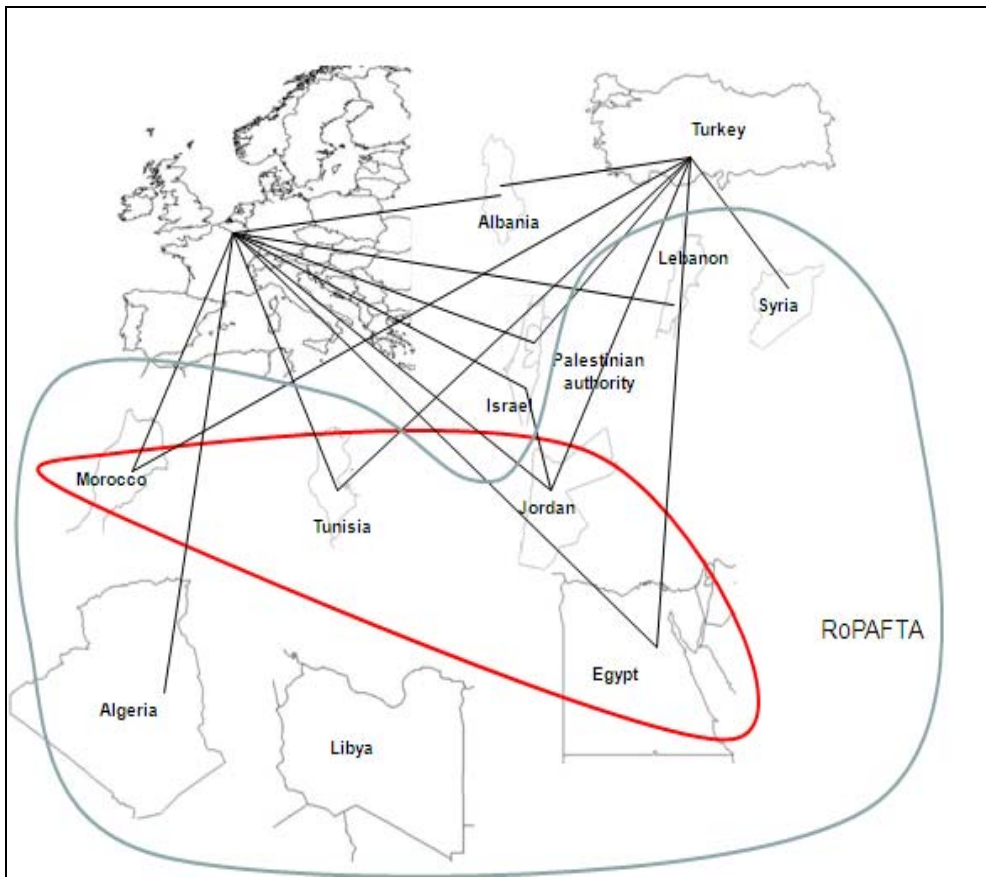
**Table 1. Macroeconomic Indicators (2007)**

	Value added (% of GDP)			Goods and services, % GDP		FDI (current US\$ billion)
	Agri-culture	Industry	Services, etc.	Exports	Imports	
Albania	21.4	20.0	58.6	27.9	54.3	0.5
Algeria	8.2	61.1	30.7	46.8	23.4	1.7
Egypt	14.1	36.3	49.6	30.3	34.8	11.6
Israel <sup>#</sup>	2.7	30.2	67.1	43.9	43.9	9.7
Jordan	3.2	29.4	67.4	57.9	99.3	1.8
Libya <sup>~</sup>	17.0	23.0	59.0	..	..	4.7
Morocco	13.7	27.3	59.0	35.8	44.9	2.8
Syria	18.1	35.0	46.9	41.4	40.5	0.5
Palestine (2006)*	8.0	13.0	79.0			0.0
Tunisia	10.4	29.6	60.0	54.1	56.5	1.6
Lebanon	6.4	24.0	69.6	25.3	49.9	2.8
Mauritania	12.5	46.7	40.7	57.7	64.9	0.2
Turkey (06)	8.7	28.3	63.0	22.1	27.2	22.2
EU26 <sup>##</sup>	1.9	26.1	70.4	38.8	38.5	1095
	GDP/capita (current US\$)	GDP growth (annual %)	Inflation, GDP deflator (annual %)	Population, million	Surface area (sq. km)	Days required to start a business
Albania	3404.6	6.0	3.2	3.2	28750.0	36.0
Algeria	3996.3	3.1	7.5	33.9	2381740.0	24.0
Egypt	1728.9	7.1	12.6	75.5	1001450.0	9.0
Israel <sup>#</sup>	22834.9	5.4	-0.2	7.2	22070.0	34.0
Jordan	2768.5	6.0	6.0	5.7	88780.0	14.0
Libya <sup>~</sup>	9475.1	6.8	5.4	6.2	1759540.0	..
Morocco	2434.1	2.7	3.8	30.9	446550.0	12.0
Syria	1492.7	4.5	12.9	19.9	185180.0	43.0
Palestine (2006)*	1100**	-8.0	3.6	2,4	5860	
Tunisia	3424.8	6.3	2.4	10.2	163610.0	11.0
Lebanon	5943.8	2.0	4.9	4.1	10400.0	46.0
Mauritania	847.1	1.9	-2.6	3.1	1030700.0	65.0
Turkey (06)	8877.1	4.6	7.6	73.9	783560.0	6.0
EU26 <sup>##</sup>	34074.5	2.9	2.6	494.1	4330920.0	17.1

Notes. \*Values for Palestine Authority are from CIA Factbook for 2006. \*\* value is PPP 2006. <sup>#</sup> Israel value added per sector is taken from the CIA Factbook, values are for 2007. <sup>~</sup>Libya value added per sector is taken from the CIA Factbook, values are for 2004. <sup>##</sup>Values are weighted averages (by GDP) for EU27 minus Malta.

Source: World Bank – World Development Indicators.

Figure 1. Agreements in the EuroMed Area (2008)



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

Source: WTO, RTA notified agreements.

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.

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.

**Table 2. Bilateral Agreements in the MED region Feb 2009**

	<b>Agreement (Year of entry into force)</b>
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)

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

*Source:* WTO RTA Database.

## 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<sup>3</sup>. 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.

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<sup>4</sup>. 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

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<sup>3</sup> 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.

<sup>4</sup> Tariff peaks are defined as three times the average tariff of the category.

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.

**Table 3. Evolution of weighted Average MFN Tariff by Country**

Country	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08
Albania			14.4				11.3	8.4			7.4		5.9	
Algeria			16.9	17.3			15.2	13.0	12.0		11.7	11.9	11.6	
Egypt	16.7			13.7				13.8		13.1	13.7			
EU	4.4	4.4	3.8	3.4	2.9	3.2	3.3	3.2	2.9	2.7	2.7	2.6	2.6	
Israel										2.7	2.6	2.6	2.5	2.61
Jordan						18.9	12.1	12.7	11.4		12.0	9.3	9.2	
Lebanon					11.6	16.9	8.2	6.3		5.3	5.6	5.5	5.6	
Libya		21.3						25.1						
Mauritania							9.9					7.2	10.1	
Morocco			17.3			25.4	24.6	24.5	24.9		19.9	18.2	18.0	
Syrian								15.5						
Tunisia	27.4			25.7				26.4	22.7	22.4	19.7	19.2		
Turkey	6.7		5.7		5.4				4.4		3.8	3.9	4.4	

Source: Trains.

**Table 4. MED5 Unweighted tariffs by Broad Economic Categories**

	Egypt (2005)		Israel (2007)		Jordan (2007)		Morocco (2007)		Tunisia (2006)	
	SA	TP	SA	TP	SA	TP	SA	TP	SA	TP
Capital goods (except transport equipment),	4.6	0	3.9	0	6.9	0	6.9	0	11.5	4
Consumer goods not elsewhere specified	29.3	0	9.5	17	23.2	10	33.1	0	36.1	18
Food and beverages	76.8	16	19.3	148	22.1	17	52.8	227	73.0	889
Fuels and lubricants	4.7	0	1.8	0	13.0	0	11.2	0	6.9	0
Industrial supplies not elsewhere specified	9.5	1	2.9	10	6.0	2	18.9	2	19.2	43
Transport equipment and parts and accessories	11.6	6	3.0	0	15.1	0	21.3	0	22.6	0
Goods not elsewhere specified	11.0	0	0.7	0	19.0	0	7.7	0	18.1	0

Note. SA – Simple average, TP – Tariff peaks.

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



Table 5 shows MED5 country tariff structure by SITC categories for the latest available year<sup>5</sup>. 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<sup>6</sup>. 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 n.e.s.' 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**

	<b>Egypt (2005)</b>	<b>Israel (2008)</b>	<b>Jordan (2007)</b>	<b>Morocco (2007)</b>	<b>Tunisia (2006)</b>	<b>EU (2008)</b>
Animal/veg oil/fat/wax	5.55	3.71	11.23	4.57	26.47	5.16
Beverages and tobacco	2616.29	3.90	50.06	27.70	28.94	5.93
Chemicals/products n.e.s	16.47	2.84	2.70	17.04	13.20	2.17
Commodities nes	6.72	0.00	18.77	5.04	38.64	0.00
Crude mater.ex food/fuel	1.91	0.41	4.42	11.80	13.25	0.22
Food & live animals	11.74	9.75	9.47	39.01	44.89	7.21
Machinery/transp equipmt	10.02	3.10	9.94	13.43	16.57	2.80
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.

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

<sup>5</sup> 10 separate SITC categories are identified from over 3000 products.

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

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)
	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%

*Note.* All tariffs are unweighted averages.

*Source:* Own calculations, Trains raw tariff data.

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 (current members include Egypt, United Arab Emirates (UAE), Bahrain, Jordan, Tunisia, Saudi Arabia, Sudan, Syria, Iraq, Oman, Palestine, Qatar, Kuwait, Lebanon, Libya, Morocco, Yemen). 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<sup>7</sup>. 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 through PAFTA (1998) or the Agadir Agreement (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

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<sup>7</sup> This is due to transshipment of goods through Israel. It is important to note that this trade link represents a very small fraction of intra-med trade.

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 (%)**

	Albania	Algeria	Egypt	Israel	Jordan	Lebanon	Libya	Mauritania	Morocco	Palestine Territory	Syria	Tunisia	Turkey	MED
<b>EXPORT</b>														
Albania	0.0	0.0	0.1	0.0	0.0	0.2		0.0	0.0	0.0	0.0	0.0	0.3	0.1
Algeria	0.0	0.4	0.0	0.0	2.0	0.5		0.3	0.5	0.3	2.5	1.9	1.2	0.7
Egypt	0.0	0.7	0.3	1.4	4.6			0.0	0.3	0.2	3.8	0.6	0.8	0.8
Israel	0.0	0.0	0.1	2.7	0.0			0.0	0.0	84.7	0.0	0.0	1.6	0.8
Jordan	0.0	0.0	1.9	0.5	3.5			0.0	0.2	6.7	4.6	0.0	0.4	0.5
Lebanon	0.0	0.0	2.0	0.0	2.2			0.0	0.2	0.0	3.2	0.0	0.4	0.3
Libya	0.0	0.0	1.5	0.0	0.6	0.1		0.0	0.3	0.0	1.7	4.6	0.6	0.6
Mauritania	0.0	0.1	0.2	0.0	0.0	0.1		0.3	0.0	0.1	0.1	0.0	0.1	0.1
Morocco	0.0	1.0	1.0	0.0	0.2	0.6		0.0	0.0	1.9	1.1	0.7	0.7	0.7
Palestine Territory	0.0	0.0	0.3	0.0	0.9	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Syria	0.0	0.0	1.3	0.0	4.7	8.6		0.0	0.3	0.0	0.0	0.7	0.5	0.5
Tunisia	0.0	0.1	0.8	0.0	0.3	0.5		0.0	0.6	0.0	0.8	0.5	0.3	0.3
Turkey	2.3	3.4	2.7	2.2	0.4	4.6		0.0	0.9	0.2	5.2	1.2	1.6	1.6
EU25	82.1	43.6	28.8	29.0	3.2	17.1		38.8	71.9	5.2	43.0	79.2	51.9	46.6
ASEAN3*	2.6	4.3	7.6	7.0	5.9	4.7		5.8	2.8	0.1	0.6	0.5	2.1	3.6
GCC**	0.0	0.0	4.1	0.1	17.1	20.5		0.0	0.8	1.5	16.3	0.6	5.2	3.3
NAFTA	0.6	38.0	7.1	36.8	27.8	2.8		0.0	3.5	1.0	2.6	1.2	4.4	18.3
RoW	12.4	8.7	40.2	24.1	30.7	31.5		55.1	17.5	0.2	13.7	8.8	29.3	21.4
Intra-Med	2.3	5.4	12.3	3.0	15.3	23.4		0.3	3.5	92.0	23.8	9.6	7.1	6.9
Extra Med	97.7	94.6	87.7	97.0	84.7	76.6		99.7	96.5	8.0	76.2	90.4	92.9	93.1
<b>IMPORT</b>														
Albania	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Algeria	0.1	1.4	0.0	0.0	0.1			0.1	2.5	0.0	0.6	1.6	1.2	0.9
Egypt	0.6	0.9	0.2	4.4	5.5			0.7	1.1	0.9	4.4	1.1	0.4	1.0
Israel	0.3	0.0	1.1	0.0				0.0	0.0	73.5	0.0	0.0	0.6	1.0
Jordan	0.0	0.4	0.2	0.1	0.8			0.0	0.0	1.4	1.0	0.1	0.0	0.1
Lebanon	0.1	0.1	0.4	0.0	0.8			0.0	0.1	0.0	1.2	0.1	0.1	0.1
Libya	0.0	0.0	0.7	0.0	0.0	0.4		0.0	0.3	0.0	0.8	3.4	0.2	0.4
Mauritania	0.0	0.0	0.1	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Morocco	0.0	0.2	0.1	0.0	0.2	0.4		1.5	0.0	0.2	0.4	0.1	0.1	0.1

	Albania	Algeria	Egypt	Israel	Jordan	Lebanon	Libya	Mauritania	Morocco	Palestine Territory	Syria	Tunisia	Turkey	MED
Palestine Territory	0.0	0.0	0.0	0.0	0.2	0.0		0.0	0.0		0.0	0.0	0.0	0.0
Syria	0.0	0.1	0.5	0.0	2.7	2.2		0.0	0.1	0.0		0.3	0.2	0.3
Tunisia	0.0	0.8	0.1	0.0	0.0	0.1		0.6	0.6	0.0	0.1		0.1	0.2
Turkey	7.3	3.3	1.7	2.8	2.9	4.0		0.4	2.7	2.6	3.9	2.6		1.6
EU25	57.8	51.1	22.3	36.2	24.2	35.0		41.2	51.4	7.8	24.4	64.3	37.4	39.9
ASEAN3*	8.2	17.3	12.0	13.5	19.5	10.1		13.2	10.0	9.3	16.8	7.0	15.3	14.2
GCC**	0.1	0.8	14.1	0.0	24.9	8.6		2.6	6.4	0.2	9.9	1.2	1.9	3.2
NAFTA	1.3	10.1	10.1	14.7	5.2	10.1		4.6	7.0	1.0	2.6	4.1	5.5	7.3
RoW	24.2	14.8	36.3	32.5	13.9	22.7		35.1	17.9	3.3	34.2	13.9	36.9	29.6
Intra-Med	8.4	5.8	5.3	3.1	12.3	13.5		3.4	7.4	78.4	12.2	9.5	3.1	5.8
Extra Med	91.6	94.2	94.7	96.9	87.8	86.5		96.6	92.6	21.6	87.9	90.6	96.9	94.2

Note. Data should be read by columns.

\* 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.

Source: Own calculations, Comtrade.

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<sup>8</sup>. 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<sup>9</sup>.

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.

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<sup>8</sup> As a point of comparison, the average annual growth rate of world exports during the period under investigation was near 9.5%.

<sup>9</sup> 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 (%)**

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



## 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 (%)**

Product Name	1996	1998	2000	2002	2004	2006
<b>EXPORTS</b>						
Animal/veg oil/fat/wax	0.45	0.39	0.30	0.16	0.53	0.46
Beverages and tobacco	0.78	0.79	0.47	0.47	0.39	0.31
Chemicals/products n.e.s	6.60	7.73	6.47	6.88	6.54	6.21
Commodities nes	2.68	3.23	1.68	2.01	1.29	1.35
Crude mater.ex food/fuel	4.29	4.53	3.39	3.11	3.06	2.86
Food & live animals	8.51	8.35	5.91	6.63	5.93	5.07
Machinery/transp equipmt	10.01	13.57	14.62	14.51	16.07	15.49
Manufactured goods	16.13	18.48	17.66	19.26	19.30	16.40
Mineral fuel/lubricants	32.72	22.55	32.77	28.09	30.13	38.81
Miscellaneous manuf arts	17.82	20.39	16.73	18.87	16.76	13.06

Product Name	1996	1998	2000	2002	2004	2006
<b>IMPORTS</b>						
Animal/veg oil/fat/wax	1.41	1.54	0.92	1.17	1.07	0.94
Beverages and tobacco	1.08	1.26	1.06	0.85	0.67	0.56
Chemicals/products n.e.s	10.41	11.08	10.49	11.70	12.03	11.72
Commodities nes	1.23	1.76	2.20	2.50	2.11	1.88
Crude mater.ex food/fuel	4.32	3.98	3.90	4.16	4.35	4.43
Food & live animals	9.85	8.77	7.87	8.56	6.97	6.34
Machinery/transp equipmt	36.24	37.48	38.33	33.97	36.07	33.76
Manufactured goods	22.54	21.55	21.05	22.88	21.96	21.65
Mineral fuel/lubricants	4.02	3.32	5.51	5.10	6.54	10.55
Miscellaneous manuf arts	8.89	9.25	8.67	9.11	8.23	8.18

Source: Own calculations, Comtrade (mirror flows).

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

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

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 Nable 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.

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 (%)**

Product Name	1996					2006				
	MAR	EGY	ISR	JOR	TUN	MAR	EGY	ISR	JOR	TUN
<b>EXPORTS</b>										
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
Beverag. and tobac.	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

Product Name	1996					2006				
	MAR	EGY	ISR	JOR	TUN	MAR	EGY	ISR	JOR	TUN
<b>IMPORTS</b>										
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
Beverag. and tobac.	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 (%)**

Product Name	1996					2006				
	MAR	EGY	ISR	JOR	TUN	MAR	EGY	ISR	JOR	TUN
<b>EXPORTS</b>										
Animal/veg oil/fat/wax	1.01	0.10	0.03	0.01	3.18	1.30	0.03	0.03	1.89	1.30
Beverag. and tobac.	0.17	0.03	0.07	0.94	0.11	0.16	0.07	0.08	0.08	0.16
Chemicals/products n.e.s	8.08	1.48	16.01	22.76	5.75	3.90	6.04	19.28	30.94	3.90
Commodities nes	0.08	0.09	0.41	0.19	0.04	0.98	0.90	0.98	3.45	0.98
Crude mater.ex food/fuel	7.64	2.97	6.54	35.58	2.03	6.75	2.81	3.84	21.99	6.75

Product Name	1996					2006				
	MAR	EGY	ISR	JOR	TUN	MAR	EGY	ISR	JOR	TUN
Food & live animals	22.59	5.64	11.05	4.96	3.32	22.43	5.45	8.96	5.10	22.43
Machinery/transp equipmt	9.19	2.49	23.32	18.88	9.34	17.63	3.33	23.81	11.27	17.63
Manufactured goods	5.03	14.13	27.66	4.91	5.21	4.22	17.33	25.49	12.94	4.22
Mineral fuel/lubricants	0.68	65.29	1.06	1.48	9.75	2.32	55.95	5.86	0.00	2.32
Miscellaneous manuf arts	45.52	7.79	13.85	10.29	61.27	40.31	8.10	11.67	12.35	40.31
<b>IMPORTS</b>										
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
Beverag. and tobac.	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<sup>10</sup>. 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<sup>11</sup>. 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

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<sup>10</sup> 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  $\delta_{im}$  and  $\delta_{in}$  are the share of exports from country  $m$  in product  $i$  and the share of exports from country  $n$  in product  $i$ , respectively.

<sup>11</sup> This value is calculated at the HS 6-digit level.

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.

**Table 13. FK indicators of similarity (2006)**

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

*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		2006		1996	2006	Change X Wld 1996-2006	Change X EU 1996-2006	Change RCA 1996-2006
		xWLD	xEU	xWLD	xEU	RCA	RCA			
710239	Non-industrial :-- Other (diamonds)	9.6	2.4	7.0	1.1	20.1	15.4	-2.6	-1.4	-4.7
620342	Trousers, bib and brace overalls, b	2.4	3.4	1.4	2.2	8.7	7.6	-1.0	-1.3	-1.1
611020	Of cotton (Jerseys, Pullovers...)	2.0	2.3	0.9	1.1	9.4	4.3	-1.1	-1.2	-5.0
280920	Phosphoric acid and polyphosphoric	1.8	1.1	0.8	0.3	47.5	28.6	-1.1	-0.7	-18.9
610910	Of cotton (T-shirts)	1.8	2.4	2.0	3.4	8.8	9.4	0.2	1.0	0.6
710231	Non-industrial :-- Un-worked (diamonds)	1.4	1.5	1.5	1.2	2.9	4.7	0.1	-0.3	1.8
620462	Trousers, bib and brace overalls, b	1.2	1.6	1.5	2.2	7.7	7.7	0.3	0.6	0.0
711319	Of precious metal whether or not pl	1.1	0.3	0.8	0.4	4.3	3.2	-0.3	0.1	-1.1
030759	Octopus (Octopus spp.) :-- Other	1.1	0.3	0.3	0.3	45.6	24.5	-0.8	0.0	-21.2
240110	Tobacco, not stemmed/stripped	1.0	0.5	0.3	0.3	27.1	19.5	-0.7	-0.2	-7.6
251010	Unground (calcium phosphate)	1.0	0.9	0.5	0.3	50.7	47.9	-0.5	-0.6	-2.7
080222	Hazelnuts or filberts (Corylus spp.)	1.0	1.3	0.5	0.7	64.4	43.1	-0.4	-0.6	-21.3
620520	Of cotton (Shirts)	0.9	1.3	0.5	0.7	5.4	5.0	-0.5	-0.6	-0.3
520100	Cotton, not carded or combed.	0.8	0.8	0.3	0.1	4.1	2.4	-0.5	-0.6	-1.7
851790	Parts (telephony)	0.7	0.5	0.4	0.3	2.0	1.3	-0.3	-0.2	-0.7
Total		27.6	20.4	18.7	14.6					
Average						20.6	15.0	-0.6	-0.4	-5.6

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 sec-

tors 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<sup>12</sup>. 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.

**Table 15. Top 15 MED Export Sectors to the World 2006 and 1996 (%)**

HS 6 digit code	Description	2006		1996		2006	1996	Change X Wld 2006-1996	Change X EU 2006-1996	Change RCA 2006-1996
		xWLD	xEU	xWLD	xEU	RCA	RCA			
710239	Non-industrial :-- Other (diamonds)	7.0	1.1	9.6	2.4	15.4	20.1	-2.6	-1.4	-4.7
610910	Of cotton (T-shirts)	2.0	3.4	1.8	2.4	9.4	8.8	0.2	1.0	0.6
852812	Reception apparatus for television,	1.8	3.0	0.5	0.7	2.9	1.2	1.3	2.3	1.7
300490	Other (medicaments)	1.7	0.5	0.4	0.1	0.9	0.5	1.4	0.4	0.4
620462	Trousers, bib and brace overalls, b	1.5	2.2	1.2	1.6	7.7	7.7	0.3	0.6	0.0
710231	Non-industrial :-- Un-worked (diamonds)	1.5	1.2	1.4	1.5	4.7	2.9	0.1	-0.3	1.8
620342	Trousers, bib and brace overalls, b	1.4	2.2	2.4	3.4	7.6	8.7	-1.0	-1.3	-1.1
870323	Other vehicles, with spark-ignition	1.3	1.7	0.1	0.2	0.7	0.1	1.2	1.5	0.6
870421	Other, with compression-ignition in	1.2	2.0	0.0	0.0	3.3	0.0	1.2	2.0	3.3
721420	Containing indentations, ribs, groo	1.1	0.9	0.5	0.0	12.3	10.5	0.6	0.8	1.8
870332	Other vehicles, with compression-ig	1.0	1.8	0.2	0.3	1.0	0.3	0.8	1.4	0.7

<sup>12</sup> Subsequent MED5 analysis should reveal the origin of this nascent industry

HS 6 digit code	Description	2006		1996		2006	1996	Change X Wld 2006-1996	Change X EU 2006-1996	Change RCA 2006-1996
		xWLD	xEU	xWLD	xEU	RCA	RCA			
611020	Of cotton (Jerseys, Pullovers...)	0.9	1.1	2.0	2.3	4.3	9.4	-1.1	-1.2	-5.0
711319	Of precious metal whether or not pl	0.8	0.4	1.1	0.3	3.2	4.3	-0.3	0.1	-1.1
280920	Phosphoric acid and polyphosphoric	0.8	0.3	1.8	1.1	28.6	47.5	-1.1	-0.7	-18.9
854430	Ignition wiring sets and other wiri	0.8	1.4	0.7	1.1	3.9	3.0	0.1	0.4	0.8
Total		24.7	22.9	23.0	23.6					
Average						7.1	8.3	0.1	0.4	-1.3

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		2006		1996	2006	Change X EU 1996-2006	Change X Wld 1996-2006	Change RCA 1996-2006
		xEU	xWLD	xEU	xWLD	RCA	RCA			
620342	Trousers, bib and brace overalls, b	3.4	2.4	2.2	1.4	8.7	7.6	-1.3	-1.0	-1.1
710239	Non-industrial :-- Other (diamonds)	2.4	9.6	1.1	7.0	20.1	15.4	-1.4	-2.6	-4.7

HS 6 digit code	Description	1996		2006		1996	2006	Change X EU 1996-2006	Change X Wld 1996-2006	Change RCA 1996-2006
		xEU	xWLD	xEU	xWLD	RCA	RCA			
610910	Of cotton (T-shirts)	2.4	1.8	3.4	2.0	8.8	9.4	1.0	0.2	0.6
611020	Of cotton (Jerseys, Pullovers...)	2.3	2.0	1.1	0.9	9.4	4.3	-1.2	-1.1	-5.0
620462	Trousers, bib and brace overalls, b	1.6	1.2	2.2	1.5	7.7	7.7	0.6	0.3	0.0
710231	Non-industrial :-- Un-worked (diamonds)	1.5	1.4	1.2	1.5	2.9	4.7	-0.3	0.1	1.8
080222	Hazelnuts or filberts (Corylus spp.	1.3	1.0	0.7	0.5	64.4	43.1	-0.6	-0.4	-21.3
620520	Of cotton (Shirts)	1.3	0.9	0.7	0.5	5.4	5.0	-0.6	-0.5	-0.3
854430	Ignition wiring sets and other wiri	1.1	0.7	1.4	0.8	3.0	3.9	0.4	0.1	0.8
620640	Of man-made fibres (blouses)	1.1	0.7	0.3	0.2	8.1	5.8	-0.8	-0.5	-2.4
280920	Phosphoric acid and polyphosphoric	1.1	1.8	0.3	0.8	47.5	28.6	-0.7	-1.1	-18.9
080510	Oranges	1.0	0.7	0.2	0.3	13.1	9.8	-0.8	-0.4	-3.3
611030	Of man-made fibres (Jerseys, Pullovers...)	0.9	0.6	0.6	0.5	3.2	3.3	-0.3	-0.2	0.1
420310	Articles of apparel (leather)	0.9	0.6	0.3	0.2	6.4	4.5	-0.6	-0.4	-1.9
251010	Unground (calcium phosphate)	0.9	1.0	0.3	0.5	50.7	47.9	-0.6	-0.5	-2.7
Total		26.2	23.1	18.4	16.0					
Average						17.3	13.4	-0.5	-0.5	-3.9

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		1996		2006	1996	Change X EU 2006-1996	Change X Wld 2006-1996	Change RCA 2006-1996
		xEU	xWLD	xEU	xWLD	RCA	RCA			
610910	Of cotton (T-shirts)	3.4	2.0	2.4	1.8	9.4	8.8	1.0	0.2	0.6
852812	Reception apparatus for television,	3.0	1.8	0.7	0.5	2.9	1.2	2.3	1.3	1.7
620462	Trousers, bib and brace overalls, b	2.2	1.5	1.6	1.2	7.7	7.7	0.6	0.3	0.0
620342	Trousers, bib and brace overalls, b	2.2	1.4	3.4	2.4	7.6	8.7	-1.3	-1.0	-1.1
870421	Other, with compression-ignition in	2.0	1.2	0.0	0.0	3.3	0.0	2.0	1.2	3.3
870332	Other vehicles, with compression-ig	1.8	1.0	0.3	0.2	1.0	0.3	1.4	0.8	0.7
870323	Other vehicles, with spark-ignition	1.7	1.3	0.2	0.1	0.7	0.1	1.5	1.2	0.6
854430	Ignition wiring sets and other wiri	1.4	0.8	1.1	0.7	3.9	3.0	0.4	0.1	0.8
710231	Non-industrial :-- Un-worked (diamonds)	1.2	1.5	1.5	1.4	4.7	2.9	-0.3	0.1	1.8
611020	Of cotton (Jerseys, Pullovers...)	1.1	0.9	2.3	2.0	4.3	9.4	-1.2	-1.1	-5.0
870331	Other vehicles, with compression-ig	1.1	0.7	0.0	0.0	4.2	0.0	1.1	0.7	4.2
710239	Non-industrial :-- Other (diamonds)	1.1	7.0	2.4	9.6	15.4	20.1	-1.4	-2.6	-4.7
840999	Other (parts engines)	0.9	0.6	0.2	0.1	2.5	0.8	0.7	0.4	1.8
870899	Other parts and accessories :-- Oth	0.9	0.6	0.4	0.3	0.6	0.3	0.6	0.3	0.4
150910	Virgin (Olive oil)	0.9	0.6	0.6	0.5	11.5	8.1	0.3	0.1	3.4
Total		24.7	22.7	17.2	20.6					
Average						5.3	4.8	0.5	0.1	0.6

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 overshadow 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)**

	1996		2000		2006	
	<b>World</b>					
MAR	2477757.0	33.7%	2579440.0	33.7%	3768362.0	26.7%
ALB	77459.9	24.9%	96558.3	24.9%	174462.7	23.0%
DZA	5416.6	0.0%	1460.7	0.0%	5132.4	0.0%
EGY	1110918.0	18.0%	1458420.0	18.0%	2242458.0	10.8%
ISR	1175498.0	6.1%	1412948.0	6.1%	1355074.0	3.0%

	1996		2000		2006	
JOR	37937.5	4.0%	85742.2	4.0%	1377351.0	35.7%
LBN	53599.5	8.0%	38568.6	8.0%	62443.6	3.3%
LBY	2493.5	0.0%	1332.2	0.0%	2445.9	0.0%
MRT	2865.4	0.4%	3229.3	0.4%	3389.1	0.2%
SYR	364284.0	10.1%	583831.2	10.1%	589561.7	9.3%
TUN	2787584.0	51.1%	2838301.0	51.1%	3941056.0	33.2%
TUR	8103334.0	40.1%	10372260.0	40.1%	20714882.0	25.9%
<b>EU</b>						
MAR	2375780.0	43.2%	2428171.0	32.1%	3435612.0	26.7%
ALB	75217.1	29.3%	95082.3	33.1%	171269.7	23.0%
DZA	3237.2	0.0%	478.5	0.0%	1340.4	0.0%
EGY	580868.4	15.5%	661709.3	24.5%	980793.0	10.8%
ISR	624303.3	8.8%	506382.5	4.6%	462950.1	3.0%
JOR	15987.7	8.1%	20251.0	6.8%	13297.4	35.7%
LBN	26085.9	16.3%	17502.3	4.3%	17560.5	3.3%
LBY	1314.8	0.0%	210.4	0.0%	243.2	0.0%
MRT	1368.1	0.4%	1941.4	0.6%	2565.1	0.2%
SYR	211163.6	7.9%	280564.3	11.5%	202582.0	9.3%
TUN	2752223.0	57.3%	2761902.0	47.4%	3712700.0	33.2%
TUR	6538851.0	50.7%	7684144.0	39.6%	15600690.0	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<sup>13</sup> 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 ex-

<sup>13</sup> Oxfam (2004), "Euro-Med: Seeds of a Raw Deal".

[http://www.oxfam.org.uk/resources/policy/trade/downloads/bn\\_EuroMed.pdf](http://www.oxfam.org.uk/resources/policy/trade/downloads/bn_EuroMed.pdf).



ports to the world is higher than the equivalent world share in total world exports. 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 (%)**

	<b>Agriculture in total</b>	<b>Agriculture in non oil total</b>
MAR	13.5	13.9
ALB	7.0	7.4
DZA	0.1	0.4
EGY	9.7	12.8
ISR	4.8	4.9
JOR	4.3	4.3
LBN	14.2	14.2
LBY	0.0	0.6
MRT	0.1	0.2
SYR	15.8	49.7
TUN	8.1	9.2
TUR	8.3	8.6
WLD	6.1	6.9
EU	7.6	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<sup>14</sup>. In the latter case the

<sup>14</sup> 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.

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.

**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

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

*Source:* Own calculations, Comtrade (mirror flows).

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<sup>15</sup>. 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.

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

Row	Product	%				RCA	bRCA	RMA1	RMA2
		X Wld (1)	XEU (2)	X RoW (3)	(2)-(3) RMA3				
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

<sup>15</sup>The same interpretation applies as in the previous footnote.

Row	Product	%				RCA	bRCA	RMA1	RMA2
		x Wld (1)	x XEU (2)	x RoW (3)	(2)-(3) RMA3				
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			EU		
	1996	2000	2006	1996	2000	2006
MAR	0.27	0.28	0.54	0.24	0.25	0.51
ALB	0.38	0.41	0.4	0.35	0.26	0.35
DZA	0.03	0.01	0.01	0.01	0.01	0.00
EGY	0.17	0.09	0.56	0.02	0.03	0.16
ISR	0.25	0.19	0.29	0.09	0.08	0.13
JOR	0.35	0.38	1.14	0.07	0.06	0.02
LBN	0.44	0.53	0.76	0.21	0.17	0.10
LBY	0.03	0.01	0.00	0.00	0.01	0.00
MRT	0.01	0.01	0.02	0.01	0.00	0.00
SYR	0.04	0.04	0.3	0.01	0.00	0.07
TUN	0.55	1.12	2.05	0.52	1.09	1.80
TUR	3.58	5.58	14.71	2.29	4.41	11.55

*Source:* Own calculations, Comtrade (mirror flows).

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

	Goods/service vehicles	Motor veh parts/access	Motor-cycles/cycles/etc	Passenger cars etc	Road motor vehicles	Trailers/caravans/etc
<b>1996</b>						
MAR	2.6	90.9	1.0	4.6	0.0	0.9
ALB	70.4	15.4	0.5	8.5	4.5	0.7
DZA	43.4	8	0.1	28.3	19.1	1.2
EGY	0.0	17.5	12.8	53.2	2.0	14.5
ISR	3.4	57.9	26.3	6.1	0.0	6.2
JOR	39.8	17.6	2.1	30.5	2.4	7.7
LBN	0.0	23.9	8.0	68.1	0.0	0.0
LBY	27.2	36.4	0.2	36.1	0.0	0.0
MRT	0.0	0.0	62.6	21.4	0.0	16.0
SYR	0.0	4.5	2.8	81.6	0.0	11.0
TUN	2.6	86.5	8.6	1.0	0.1	1.3
TUR	0.4	40	2.4	39.8	16.2	1.1

	<b>Goods/ser- vice vehicles</b>	<b>Motor veh parts/access</b>	<b>Motor- cycles/ cycles/etc</b>	<b>Passenger cars etc</b>	<b>Road mo- tor vehi- cles nes</b>	<b>Trailers/ caravans/etc</b>
<b>2006</b>						
MAR	0.3	77.8	1.2	1.9	18.7	0.1
ALB	18.1	25.1	0.0	48.1	0.1	8.6
DZA	65.1	10.1	0.2	14.3	0.0	10.3
EGY	0.8	72.8	1.0	4.4	19.9	0.9
ISR	12.6	66.3	5.0	2.5	6.2	7.3
JOR	43.5	25.5	0.7	30.2	0.0	0.1
LBN	3.7	53.2	0.3	38.7	1.7	2.4
LBY	14.2	23.7	0.0	34.8	6.1	21.2
MRT	0.0	9.3	3.5	87.1	0.0	0.0
SYR	93.0	4.9	0.1	1.9	0.0	0.1
TUN	0.5	86.5	10.9	0.4	0.2	1.5
TUR	23.8	18.8	0.3	48.4	7.9	0.7

*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’.

## **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<sup>16</sup>. 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**

	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
<b>FK export similarity total exports 1996</b>													
MAR	1.00												
ALB	0.25	1.00											
DZA	0.09	0.04	1.00										
EGY	0.20	0.18	0.05	1.00									
ISR	0.10	0.06	0.04	0.11	1.00								
JOR	0.15	0.07	0.12	0.10	0.09	1.00							
LBN	0.11	0.12	0.10	0.10	<b>0.30</b>	0.09	1.00						
LBY	0.01	0.02	0.13	0.02	0.02	0.05	0.02	1.00					
MRT	0.09	0.01	0.01	0.01	0.01	0.01	0.01	0.00	1.00				
PSE										1.00			
SYR	0.20	0.14	0.11	0.22	0.07	0.14	0.14	0.04	0.01		1.00		
TUN	<b>0.47</b>	<b>0.29</b>	0.05	0.20	0.10	0.11	0.13	0.01	0.02		0.17	1.00	
TUR	0.24	0.19	0.04	<b>0.30</b>	0.13	0.10	0.15	0.02	0.01		0.19	0.26	1.00
<b>FK export similarity total exports 2006</b>													
MAR	1.00												
ALB	0.23	1.00											
DZA	0.11	0.12	1.00										
EGY	0.23	0.18	0.15	1.00									

<sup>16</sup> The FK calculations including sector HS27 can be found in the Annex table A.6.



	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
ISR	0.11	0.06	0.05	0.12	1.00								
JOR	<b>0.29</b>	0.16	0.10	0.21	0.14	1.00							
LBN	0.12	0.16	0.15	0.21	0.17	0.18	1.00						
LBY	0.03	0.03	0.18	0.14	0.02	0.03	0.05	1.00					
MRT	0.07	0.01	0.01	0.01	0.02	0.01	0.03	0.02	1.00				
PSE										1.00			
SYR	0.21	0.13	0.11	0.22	0.09	0.18	0.19	0.03	0.01		1.00		
TUN	<b>0.42</b>	0.27	0.08	0.23	0.13	<b>0.27</b>	0.15	0.03	0.02		0.19	1.00	
TUR	0.23	0.19	0.06	<b>0.34</b>	0.14	0.21	0.23	0.03	0.01		0.21	0.28	1.00

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

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<sup>17</sup>. 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

<sup>17</sup> 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.

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.

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

Y	X												
	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
MAR		0.102	0.088	0.237	0.232	0.124	0.179	0.049	0.012	0.049	0.156	0.195	<b>0.336</b>
ALB	0.146		0.073	<b>0.303</b>	0.184	0.159	0.257	0.030	0.011	0.080	0.186	0.198	<b>0.353</b>
DZA	0.083	0.075		0.219	0.215	0.122	0.174	0.036	0.009	0.073	0.147	0.141	<b>0.350</b>
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	<b>0.352</b>
LBN	0.132	0.102	0.066	0.235	0.262	0.177		0.033	0.014	0.116	0.185	0.170	<b>0.335</b>
LBY	0.094	0.077	0.055	0.206	0.176	0.121	0.203		0.030	0.052	0.147	0.157	<b>0.309</b>
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	<b>0.327</b>
TUN	0.123	0.096	0.075	0.216	0.222	0.116	0.170	0.047	0.011	0.048	0.134		<b>0.320</b>
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<sup>18</sup>.

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<sup>18</sup> It is however possible that competitive pressures are strong at the product level.

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

	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
<b>FK export similarity total exports 1996</b>													
MAR	1.00												
ALB	0.29	1.00											
DZA	0.07	0.04	1.00										
EGY	0.18	0.15		1.00									
ISR	0.13	0.07	0.04	0.12	1.00								
JOR	0.13	0.05	0.08	0.11	0.11	1.00							
LBN	0.17	0.12	0.08	0.14	0.24	0.10	1.00						
LBY	0.01	0.01	0.13	0.02	0.02	0.05	0.02	1.00					
MRT	0.05	0.01	0.01	0.01	0.00	0.00	0.01	0.01	1.00				
PSE													
SYR	0.20	0.14	0.09	0.19	0.07	0.14	0.18	0.04	0.01		1.00		
TUN	0.49	0.31	0.05	0.16	0.12	0.09	0.17	0.01	0.02		0.18	1.00	
TUR	0.27	0.19	0.04	0.25	0.14	0.09	0.16	0.02	0.01		0.18	0.28	1.00
<b>FK export similarity total exports 2006</b>													
MAR	1.00												
ALB	0.26	1.00											
DZA	0.07	0.11	1.00										
EGY	0.22	0.16	0.13	1.00									
ISR	0.11	0.06	0.05	0.11	1.00								
JOR	0.12	0.12	0.14	0.09	0.16	1.00							
LBN	0.13	0.17	0.12	0.13	0.17	0.19	1.00						
LBY	0.02	0.04	0.20	0.12	0.02	0.06	0.06	1.00					
MRT	0.07	0.01	0.02	0.01	0.01	0.01	0.01	0.02	1.00				
PSE	0.06	0.02	0.02	0.03	0.06	0.06	0.03	0.01	0.00	1.00			
SYR	0.18	0.15	0.06	0.19	0.07	0.17	0.15	0.03	0.01	0.08	1.00		
TUN	0.46	0.28	0.06	0.20	0.13	0.11	0.12	0.03	0.02	0.08	0.21	1.00	
TUR	0.25	0.19	0.04	0.26	0.14	0.09	0.18	0.02	0.01	0.02	0.21	0.28	1.00

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 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<sup>19</sup>. 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

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<sup>19</sup> Readers are referred to the annex A.8 for an in depth discussion of the indicators used in this section.

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)<sup>20</sup>. 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 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<sup>21</sup>. 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.

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<sup>20</sup> Note that where there is already a zero MFN, no preferential access is possible.

<sup>21</sup> It may be the case that tariffs are being reduced according to the agreed tariff dismantling schedules.

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

			<b>Egypt</b>	<b>Israel</b>	<b>Jordan</b>	<b>Morocco</b>	<b>Tunisia</b>
MFN (A)	MFN zero	-1	45.57	47.52	43.3	13.35	28.19
	MFN non-zero	-2	0.05	0.94		0.02	0.02
	Unknown	-3		0.00		0.01	
GSP/Preferences (B)	MFN zero	-1	0.06	0.04			
	MFN non-zero	-2	10.71	6.76	18.83	7.47	4.62
	Any preference zero	-3	35.24	33.7	29.16	70.32	61.77
	Any preference non zero	-4	3.30	1.71	1.33	5.21	0.42
	Unknown	-5	3.53	7.10	3.12	2.83	4.64
Unknown (C)	Unknown	-1	1.54	2.23	4.26	0.77	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 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 (%)**

	Total share	MFN	MFN (A)			GSP/Preferences (B)					N/A (C)
			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
<b>TOTAL</b>	<b>78.7</b>										

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 (%)**

	share	MFN	MFN (A)			GSP/Preferences (B)					N/A (C)
			MFN zero	MFN non-zero	N/A	MFN zero	MFN non-zero	Any pref zero	Any pref non zero	N/A	N/A
			(1)	(2)	(3)	(1)	(2)	(3)	(4)	(5)	(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	100.0								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
<b>TOTAL</b>	<b>71.70</b>										

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 (%)**

	Total share	MFN	MFN (A)			GSP/Preferences (B)					N/A (C)
			MFN zero	MFN non-zero	N/A	MFN zero	MFN non-zero	Any pref zero	any Pref non zero	N/A	N/A
			(1)	(2)	(3)	(1)	(2)	(3)	(4)	(5)	(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
<b>TOTAL</b>	<b>73.01</b>										

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 (%)**

	Total share	MFN	MFN (A)			GSP/Preferences (B)					N/A (C)	
			MFN zero	MFN non-zero	N/A	MFN zero	MFN non-zero	Any pref zero	Any pref non zero	N/A	N/A	
			(1)	(2)	(3)	(1)	(2)	(3)	(4)	(5)	(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	0.00	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	
<b>TOTAL</b>	<b>77.96</b>											

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 (%)**

	Total share	MFN	MFN (A)			GSP/Preferences (B)					N/A (C)
			MF N zero	MF N non-zero	N/A	MFN zero	MFN non-zero	Any pref zero	Any pref non zero	N/A	N/A
			(1)	(2)	(3)	(1)	(2)	(3)	(4)	(5)	(1)
Articles of apparel and clothing accessories, not knitted or crocheted	20.68	11.44					2.86	85.69	0.43	11.0	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	11.7	
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	30.1	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%<sup>22</sup>. 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 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,

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<sup>22</sup> See Table 7.

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
271111	Liquefied :-- Natural gas	19.06%	22.81%	0.00%	37.72	81.72
271000	Petroleum oils and oils obtained fr	12.88%	12.37%	2.50%	3.55	3.87
270900	Petroleum oils and oils obtained fr	12.53%	18.26%	0.00%	1.45	2.81
720839	Other, in coils, not further worked	1.95%	1.54%	0.50%	19.55	17.85
310210	Urea, whether or not in aqueous sol	1.88%	2.67%	0.36%	27.94	87.25
252329	Portland cement :--Other	1.47%	0.02%	6.76%	30.00	0.89
271112	Liquefied :-- Propane	1.29%	2.34%	0.76%	7.43	18.27
080510	Oranges	1.18%	0.70%	0.14%	40.84	17.07
740811	Of refined copper :-- Of which the	1.12%	0.73%	6.80%	8.67	4.93
520100	Cotton, not carded or combed.	1.06%	0.43%	0.67%	10.27	28.60

HS Code	Product description	Export share to the World	Export Share to the EU	Export Share to MED	RCA	BRCA EU
100630	Semi-milled or wholly milled rice,	1.02%	0.01%	6.61%	19.23	0.36
620342	Trousers, bib and brace overalls, b	1.00%	0.30%	0.03%	6.35	1.53
721420	Containing indentations, ribs, groo	0.94%	0.44%	3.41%	12.42	6.29
271121	In gaseous state :-- Natural gas	0.94%	0.10%	8.64%	0.85	0.05
610910	Of cotton (T-shirts)	0.92%	1.56%	0.10%	5.16	5.80
Total		59.24%	64.27%	37.28%		
Average					15.43	18.49

Table 35 continued

HS Code	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
271111	0.00	2.17	0.00	2.92	0.00	0.01	0.00	0.00
271000	0.46	1.09	0.13	1.87	1.21	0.63	0.27	0.57
270900	0.00	1.94	0.00	4.94	0.00	0.58	0.09	
720839	2.48	0.91	0.13	1.34	1.61	0.14	0.04	0.00
310210	1.79	3.12	0.06	4.55	1.21	0.02	0.00	0.00
252329	33.53	0.03	1.12	0.02	28.65	0.01	0.55	0.00
271112	0.89	2.46	0.12	13.16	3.70	0.83	0.00	0.82
080510	0.69	0.42	0.02	0.88	0.73	0.00	0.00	0.02
740811	61.97	0.57	7.15	1.01	38.06	0.08	0.20	0.00
520100	3.81	2.79	0.37	0.54	3.94	0.73	0.79	0.62
100630	86.94	0.02	4.52	0.01	40.68	0.27	0.76	0.00
620342	0.03	0.24	0.01	0.38	0.18	0.22	0.09	0.47
721420	5.19	0.51	0.42	0.64	22.62	0.00	0.00	0.00
271121	7.69	0.06	9.03	0.12	57.53	0.00	0.00	0.00
610910	0.09	1.13	0.02	8.55	0.69	0.09	0.03	0.57
Total								
Average	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 36. Egypt Top 15 exports to Mediterranean Partners 2006**

<b>HS Code</b>	<b>Product description</b>	<b>Export share MED</b>	<b>Export Share EU</b>	<b>RCA</b>	<b>BRCA MED</b>	<b>RMA1 MED</b>	<b>RMA2 MED</b>	<b>IIT MED</b>
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 prepara- tions 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



HS Code	Product description	Export share MED	Export Share EU	RCA	BRCA MED	RMA1 MED	RMA2 MED	IIT MED
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 37. 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
710239	Non-industrial :-- Other (diamonds)	31.93%	13.49%	2.75%	87.20	82.58
710231	Non-industrial :-- Un-worked (diamonds)	7.76%	11.30%	0.00%	29.49	40.30
300490	Other (Medicaments)	6.76%	2.56%	2.37%	3.90	0.99
851790	Parts (Telephony apparatus)	4.43%	4.75%	1.11%	19.35	25.16
880330	Other parts of aeroplanes or helicopters	2.09%	0.00%	0.00%	5.42	0.00
820900	Plates, sticks, tips (cutlery)	1.27%	2.33%	0.19%	32.78	43.33
380890	Other (Chemical Products Misc)	1.22%	2.36%	0.40%	86.98	129.67
392490	Other (tableware, kitchenware)	1.17%	2.40%	0.28%	30.55	63.26

HS Code	Product description	Export share to the World	Export Share to the EU	Export Share to MED	RCA	BRCA EU
852520	Transmission apparatus	1.01%	0.81%	0.22%	0.61	0.39
310590	Other (mineral, chemical fertilizers)	1.01%	0.54%	0.75%	145.4	175.78
901819	Electro-diagnostic apparatus	0.92%	0.86%	0.17%	15.59	15.22
847330	Parts and accessories automatic data processing machines)	0.87%	0.98%	0.12%	0.56	0.70
901890	Other instruments and appliances (medical, surgical, dental)	0.82%	1.02%	0.36%	3.65	3.94
902290	Other, including parts and accessor (X-ray, radio etc)	0.81%	0.69%	0.46%	16.43	13.39
711319	Of precious metal (jewelry)	0.77%	0.55%	0.24%	2.76	4.17
	Total	62.83%	44.64%	9.43%		
	Average				32.04	39.92

Table 38 continued

HS Code	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
710239	1.91	0.95	0.02	0.37	0.15	0.48	0.62	0.13
710231	0.00	1.37	0.00	1.27	0.00	0.78	0.59	
300490	1.56	0.25	0.40	0.33	0.60	0.45	0.75	0.01
851790	5.68	1.30	0.29	0.94	0.43	0.10	0.11	0.41
880330	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00
820900	7.34	1.32	0.22	1.60	0.26	0.12	0.07	0.00
380890	22.58	1.49	0.26	1.69	0.57	0.01	0.02	0.00
392490	8.24	2.07	0.27	1.79	0.41	0.04	0.03	0.45
852520	0.17	0.64	0.27	0.70	0.38	0.87	0.55	0.05
310590	53.65	1.21	0.37	0.47	1.27	0.00	0.00	0.00
901819	2.94	0.98	0.19	0.82	0.31	0.19	0.35	0.00
847330	0.19	1.26	0.34	0.99	0.23	0.81	0.62	0.62
901890	1.33	1.08	0.37	1.09	0.74	0.41	0.53	0.01
902290	5.74	0.81	0.35	0.74	0.98	0.47	0.55	0.00
711319	0.69	1.51	0.25	0.62	0.53	0.47	0.91	0.11
Total								
Average	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 impor-

tant 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. From 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 39. 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)	1.61%	0.02%	2.46	35.78	14.53	59.59	0.10

HS Code	Product description	Isrl export share MED	Isrl export share EU	RCA	BRCA MED	RMA1 MED	RMA2 MED	IIT MED
	agents, dyes)							
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 40. Jordan 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
611490	Of other textile materials (other Garments)	6.46%	0.12%	0.18%	779.8	46.97
310410	Carnallite, sylvite and other crude	6.24%	20.19%	1.46%	2559.5	30045
300490	Other (medicaments)	5.17%	4.41%	8.62%	2.98	1.70
711319	Of precious metal (jewellery)	4.65%	11.97%	4.78%	16.77	91.52
310290	Other, including mixtures (nitrogenous fertilizers)	4.33%	0.00%	0.06%	1528.7	0.00
620459	Skirts and divided skirts :-- Of ot	4.28%	0.43%	0.41%	307.28	23.87

HS Code	Product description	Export share to the World	Export Share to the EU	Export Share to MED	RCA	BRCA EU
251010	Unground (natural Calcium Phosphates)	3.89%	11.16%	0.07%	505.11	2304.5
611020	Of cotton (Jerseys, Pull-overs)	3.08%	1.41%	0.00%	25.89	11.04
610690	Of other textile materials (Women's Blouses)	2.67%	0.04%	0.00%	428.22	8.76
070200	Tomatoes, fresh or chilled.	2.50%	0.75%	4.30%	48.99	10.15
280920	Phosphoric acid and polyphosphoric	2.43%	0.01%	0.20%	108.63	0.79
761290	Other (aluminium Casks)	1.90%	0.17%	3.89%	64.49	4.22
300390	Other (medicaments)	1.81%	0.15%	7.67%	42.62	3.71
151620	Vegetable fats and oils	1.64%	0.00%	0.07%	63.75	0.00
240290	Other (cigars, cigarettes)	1.49%	0.00%	0.36%	1246.7	0.00
	Total	52.54%	50.81%	32.07%		
	Average				515.29	2170.2

Table 41 continued

HS Code	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
611490	9.84	0.06	0.01	0.00	0.32	0.10	0.48	0.88
310410	494.44	11.74	0.19	0.36	2.67	0.00	0.00	0.00
300490	5.68	0.57	1.90	0.10	19.11	0.96	0.10	0.13
711319	13.86	5.46	0.83	0.29	11.78	0.73	0.35	0.80
310290	89.47	0.00	0.06	0.00	0.15	0.00	0.00	0.00
620459	66.49	0.08	0.22	0.01	1.09	0.00	0.00	0.00
251010	15.48	4.56	0.03	0.32	0.22	0.00	0.00	0.00
611020	0.08	0.43	0.00	0.05	0.02	0.00	0.01	0.00
610690	0.00	0.02	0.00	0.00	0.00	0.00	0.03	0.00
070200	218.33	0.21	4.46	0.03	19.73	0.00	0.00	0.00
280920	8.60	0.01	0.08	0.00	0.95	0.00	0.20	0.01
761290	68.82	0.07	1.07	0.01	23.44	0.07	0.35	0.12
300390	130.24	0.09	3.06	0.01	48.64	0.22	0.07	0.02
151620	1.23	0.00	0.02	0.00	0.47	0.17	0.00	0.30
240290	488.51	0.00	0.39	0.00	2.73	0.02	0.00	0.00
Total								
Average	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 42. Jordan Top 15 exports to Mediterranean Partners 2006**

<b>HS Code</b>	<b>Product description</b>	<b>Export share MED</b>	<b>Export Share EU</b>	<b>RCA</b>	<b>BRCA MED</b>	<b>RMA1 MED</b>	<b>RMA2 MED</b>	<b>IIT MED</b>
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 to the World	Export Share to the EU	Export Share to MED	RCA	BRCA EU
280920	Phosphoric acid and polyphosphoric	7.94%	2.98%	6.74%	354.55	180.65
854129	Transistors, other than photosensit (semiconductors)	5.63%	7.73%	0.00%	40.71	127.32
251010	Unground (calcium Phosphates)	4.35%	1.69%	2.74%	565.44	349.34
620462	Trousers, bib and brace overalls, b	2.73%	3.73%	0.00%	18.91	22.89
620342	Trousers, bib and brace overalls, b	2.64%	3.48%	0.25%	17.59	17.90
854441	Other electric conductors, (insulated wire)	2.50%	3.41%	0.11%	38.85	39.43
160413	Fish, whole or in pieces,	2.45%	1.36%	8.72%	353.66	225.06
854449	Other electric conductors, (insulated wire)	2.43%	3.20%	0.32%	44.07	63.21
030759	Octopus (Octopus spp.) :-- Other	2.01%	2.28%	0.04%	264.97	198.52
310530	Diammonium hydrogenorthophosphate	1.91%	0.78%	0.00%	136.51	72.10
270750	Other aromatic hydrocarbon mixtures	1.91%	1.53%	0.00%	41.17	24.64
271000	Petroleum oils and oils obtained fr	1.82%	1.35%	4.77%	0.47	0.39
610910	Of cotton (T-shirts)	1.62%	2.19%	0.00%	8.39	8.34
620630	Of cotton (Women's Blouses)	1.44%	1.98%	0.00%	35.49	37.72
310540	Ammonium dihydrogenorthophosphate	1.25%	0.48%	0.12%	163.62	72.18
	Total	42.65%	38.18%	23.82%		
	Average				138.96	95.98

**Table 40 continued**

HS Code	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
280920	288.68	0.51	0.81	0.89	2.70	0.01	0.02	0.00
854129	0.00	3.13	0.00	3.28	0.00	0.62	0.53	
251010	577.62	0.62	1.02	0.93	2.01	0.00	0.00	0.00
620462	0.03	1.21	0.00	3.26	0.00	0.04	0.03	0.04
620342	2.72	1.02	0.15	3.14	0.30	0.02	0.01	0.53
854441	2.33	1.02	0.06	3.25	0.14	0.88	0.86	0.85
160413	503.55	0.64	1.42	1.33	11.32	0.00	0.00	0.00
854449	4.70	1.43	0.11	3.14	0.42	0.21	0.22	0.08

HS Code	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wid	IIT EU	IIT MED
030759	105.46	0.75	0.40	2.71	0.07	0.01	0.00	0.48
310530	0.00	0.53	0.00	0.97	0.00	0.00	0.00	
270750	0.01	0.60	0.00	1.91	0.00	0.01	0.02	0.00
271000	0.98	0.84	2.10	1.76	8.34	0.41	0.27	0.89
610910	0.03	0.99	0.00	3.23	0.01	0.46	0.22	0.04
620630	0.06	1.06	0.00	3.27	0.00	0.02	0.01	0.28
310540	8.96	0.44	0.05	0.91	0.31	0.01	0.00	0.00
Total								
Average	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 43. 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

<b>HS Code</b>	<b>Product description</b>	<b>Export share MED</b>	<b>Export Share EU</b>	<b>RCA</b>	<b>BRCA MED</b>	<b>RMA1 MED</b>	<b>RMA2 MED</b>	<b>IIT MED</b>
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 were 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 to the World	Export Share to the EU	Export Share to MED	RCA	BRCA EU
270900	Petroleum oils and oils obtained fr	10.05%	11.75%	0.18%	1.47	2.17
620342	Trousers, bib and brace overalls, b	5.37%	6.82%	0.13%	35.72	35.12
150910	Virgin (Olive Oil)	5.15%	6.09%	0.12%	125.09	81.56
271000	Petroleum oils and oils obtained fr	2.93%	0.99%	1.95%	0.75	0.29
621139	Other garments, men's or boys' :-	2.81%	3.62%	0.01%	639.11	418.07
310530	Diammonium hydroge-northophosphate	2.50%	1.22%	9.23%	178.40	112.38
853690	Other apparatus (elec app. For switching electrical currents)	2.30%	2.94%	0.03%	9.92	16.32
854441	Other electric conductors, for a vo	2.21%	2.85%	0.00%	34.28	32.98
280920	Phosphoric acid and polyphosphoric	2.04%	0.51%	0.45%	91.08	30.66
620462	Trousers, bib and brace overalls, b	1.69%	2.18%	0.00%	11.70	13.38

HS Code	Product description	Export share to the World	Export Share to the EU	Export Share to MED	RCA	BRCA EU
610910	Of cotton (T-Shirts)	1.60%	2.06%	0.03%	8.31	7.85
621210	BrassiSres	1.42%	1.84%	0.00%	25.13	30.58
640391	Other footwear :-- Covering the ank	1.36%	1.72%	0.19%	30.86	21.46
640610	Uppers and parts thereof, other tha	1.34%	1.73%	0.00%	61.38	50.30
310310	Superphosphates	1.29%	0.35%	0.36%	197.48	96.41
	Total	44.05%	46.69%	12.70%		
	Average				96.71	63.30

Table 42 continued

HS Code	BRCA MED	RMA1 EU	RMA1 MED	RMA2 EU	RMA2 MED	IIT Wld	IIT EU	IIT MED
270900	0.05	1.48	0.03	2.95	0.15	0.62	0.00	0.01
620342	1.42	0.98	0.04	3.21	0.20	0.03	0.02	0.60
150910	22.46	0.65	0.18	2.99	0.19	0.01	0.00	0.81
271000	0.40	0.38	0.53	0.86	5.58	0.42	0.22	0.27
621139	14.80	0.65	0.02	3.26	0.03	0.11	0.11	0.22
310530	181.36	0.63	1.02	1.23	30.88	0.00	0.00	0.00
853690	0.11	1.64	0.01	3.23	0.13	0.99	0.93	0.75
854441	0.05	0.96	0.00	3.27	0.01	0.05	0.04	0.23
280920	19.36	0.34	0.21	0.63	1.86	0.16	0.02	0.00
620462	0.02	1.14	0.00	3.27	0.00	0.08	0.07	0.06
610910	0.28	0.95	0.03	3.26	0.18	0.27	0.24	0.94
621210	0.03	1.22	0.00	3.27	0.01	0.30	0.29	0.37
640391	17.82	0.70	0.58	3.21	1.20	0.01	0.00	0.00
640610	0.08	0.82	0.00	3.27	0.02	0.29	0.23	0.17
310310	153.28	0.49	0.78	0.69	2.33	0.00	0.00	0.00
Total								
Average	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 44. 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)<sup>23</sup>. 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

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<sup>23</sup> 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).



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 45. 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
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 indi-

cates that there is virtually no deep integration taking place across the MED5 partners.

**Table 46. IIT Between MED5 countries 1996, 2000 and 2006**

	<b>Egypt</b>	<b>Israel</b>	<b>Jordan</b>	<b>Morocco</b>	<b>Tunisia</b>
<b>1996</b>					
Egypt					
Israel	0.0246				
Jordan		0.0282			
Morocco		0.0000	0.0010*		
Tunisia		0.0000	0.0002*	0.0010*	
<b>2000</b>					
Egypt					
Israel	0.0197				
Jordan	0.0408	0.0352			
Morocco	0.0124#	0.0000	0.0026		
Tunisia	0.0042	0.0000	0.0010	0.0227	
<b>2006</b>					
Egypt					
Israel	0.0695				
Jordan	0.0320	0.0252			
Morocco	0.0353	0.0010	0.0040		
Tunisia	0.0580	0.0000	0.0405	0.0389	

*Note.* \* values for 1998. # values for 2002.

*Source:* Own calculations, Comtrade.

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<sup>24</sup>.

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 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 possibly reflect an inward flow of money from a sister firm towards a parent firm located in Jordan.

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<sup>24</sup> 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

**Table 47. Evolution of FDI inflows 1996-2005**

	Inflows					Outflows				
	Egypt	Israel	Jordan	Morocco	Tunisia	Egypt	Israel	Jordan	Morocco	Tunisia
1996	636.4			322.0	351.1	4.9			28	2.4
1997	886.9			1207.2	365.3	165.9			8.8	9.2
1998	1075.5			460.3	668.1	45.5			24.5	1.8
1999	1065.3			1638.7	367.9	37.5			22.3	2.5
2000	1235.4			470.6	778.8	51.2			59.7	0.4
2001	509.9			2874.8	486.4	12.4			100.3	5.8
2002	646.9			533.8	821.3	27.8			53.7	6.5
2003	237.4			2429.1	583.9	20.7			19.9	5.4
2004	2157.4	2002	816	1069.8	638.9	158.9	4547	18	31.8	4.2
2005	5375.6	4881	1774	2933.2	782.4	92.0	2968	163	173.8	12.6
2006		14729	3219				15078	-138		
Annual growth	9.84%	171.2%	98.6%		7.8%	12.8%	82.1%		18.2%	13.2%

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.

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

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.

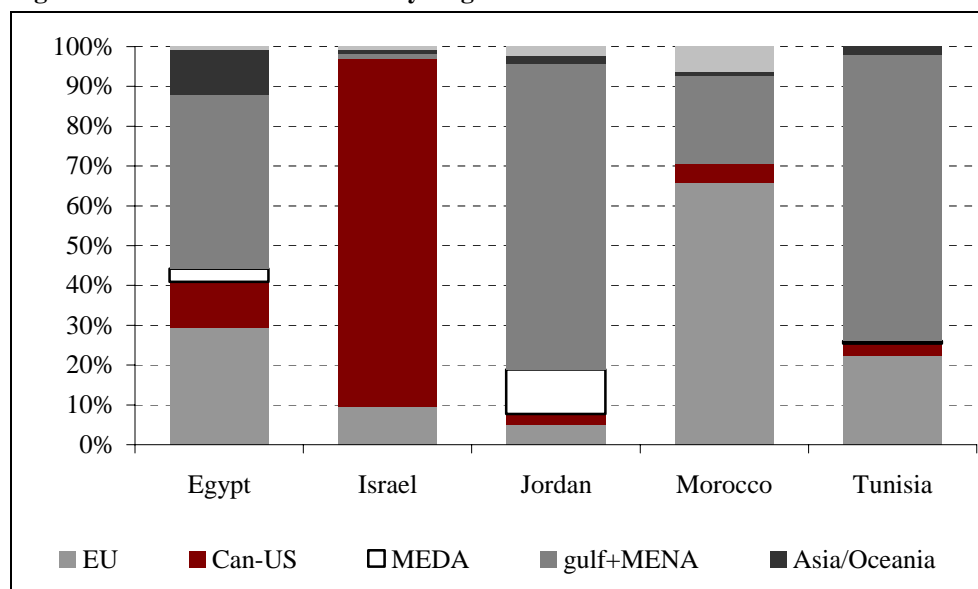
**Table 48: Inward FDI performance Indicator**

	<b>Egypt</b>	<b>Israel</b>	<b>Jordan</b>	<b>Morocco</b>	<b>Tunisia</b>
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<sup>25</sup>. 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.

**Figure 2. FDI inflows into MED5 by origin 2003-2007**



Source: ANIMA (2008), own calculations.

<sup>25</sup> 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.

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<sup>26</sup>. 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<sup>27</sup>. 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.

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

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<sup>28</sup>. 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

<sup>26</sup> 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.

<sup>27</sup> Given data constraints we are only able to singularly identify 3 of our 5 focus countries.

<sup>28</sup> 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.

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 49. EU INV2 in MED countries 2001-2007**

	2001	2002	2003	2004	2005	2006	2007	Average INV2
<b>Flows</b>								
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
<b>Stocks</b>								
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

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

*Source:* Own calculations UNCTAD FDI database.

### 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<sup>29</sup>. 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

<sup>29</sup> 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.



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.

**Table 50. 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

Sector	Share of total FDI (%)	Number of projects	Employment created	Share imports manuf	Share exports manuf	IIT	Av. RCA	Av. Tariff
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<sup>30</sup>. These appear to not be deeply illuminating. Morocco and Egypt

<sup>30</sup> We were constrained by the lack of sectoral data for MED countries

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.

# 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%

*Note.* These values differ from Table 8 as they are computed using Mirror flows and take into account a different geographical destinations.

*Source:* Own calculations, COMTRADE (mirror flows).

## 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 liv- ers and ro	0.27%	0.06%	0.70%	-0.65%	95.81	41.16	0.43	0.39
030374	Other fish, excluding liv- ers 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, es- sences 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

Row	Product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
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

Row	Product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
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 vegeta- bles; 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 ot- her single fruit	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 vegeta- bles	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 I	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, 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



Row	Product	x Wld (1)	XEU (2)	x RoW (3)	(2)-(3) RMA3	RCA	bRCA	RMA1	RMA2
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

	Goods/service vehicles	Motor veh parts/access	Motorcycles/ cycles/etc	Passenger cars etc	Road motor vehicles nes	Trailers/ caravans/etc
<b>RCA 1996</b>						
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

	Goods/ser- vice vehicles	Motor veh parts/access	Motorc- ycles/ cy- cles/etc	Passenger cars etc	Road motor vehicles nes	Trailers/ cara- vans/etc
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
<b>RCA 2006</b>						
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

	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
<b>FK export similarity total exports 1996</b>													
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
<b>FK export similarity total exports 2006</b>													
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							

	MAR	ALB	DZA	EGY	ISR	JOR	LBN	LBY	MRT	PSE	SYR	TUN	TUR
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	0.00												
ALB	0.04	0.00											
DZA	-0.02	0.00	0.00										
EGY	-0.03	-0.03	0.01	0.00									
ISR	0.03	0.01	0.01	0.01	0.00								
JOR	-0.02	-0.01	-0.04	0.01	0.01	0.00							
LBN	0.06	0.01	-0.02	0.03	-0.06	0.01	0.00						
LBY	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00					
MRT	-0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
PSE										0.00			
SYR	0.00	0.00	-0.02	-0.03	0.01	0.00	0.03	0.00	0.00		0.00		
TUN	0.02	0.02	0.00	-0.04	0.02	-0.02	0.04	0.00	0.00		0.01	0.00	
TUR	0.03	0.00	-0.01	-0.05	0.01	-0.01	0.01	0.00	0.00		-0.01	0.02	0.00
MAR	0.00												
ALB	0.03	0.00											
DZA	-0.04	-0.01	0.00										
EGY	0.00	-0.01	-0.01	0.00									
ISR	0.00	0.00	0.01	-0.01	0.00								
JOR	-0.17	-0.04	0.03	-0.12	0.02	0.00							
LBN	0.01	0.01	-0.03	-0.08	-0.01	0.01	0.00						
LBY	0.00	0.00	0.02	-0.02	0.00	0.02	0.01	0.00					
MRT	0.00	0.00	0.00	0.00	-0.01	0.00	-0.02	-0.01	0.00				
PSE	-0.02	-0.02	0.00	-0.06	-0.04	-0.04	-0.05	0.00	0.00	0.00			
SYR	-0.03	0.02	-0.05	-0.02	-0.02	-0.01	-0.04	0.00	0.00	-0.05	0.00		
TUN	0.04	0.01	-0.01	-0.03	0.01	-0.16	-0.03	-0.01	0.00	-0.02	0.02	0.00	
TUR	0.03	0.00	-0.02	-0.08	0.00	-0.12	-0.05	-0.01	0.00	-0.06	-0.01	0.00	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.

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

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
<b>Primary</b>	<b>13.74%</b>	<b>12.18%</b>	<b>3.12%</b>	<b>5.61%</b>
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)
<b>Secondary</b>	<b>51.36%</b>	<b>29.34%</b>	<b>39.83%</b>	<b>52.04%</b>
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)
<b>Tertiary</b>	<b>34.90%</b>	<b>58.47%</b>	<b>57.05%</b>	<b>42.35%</b>
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
<i>Unspecified</i>	0.29%	1.43%	0.45%	0.97%
<i>Primary</i>	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
<i>Secondary</i>	6.97%	20.02%	80.80%	18.94%
<i>Tertiary</i>	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
<i>Unspecified</i>	1.03%	2.94%	39.62%	17.90%
<i>Primary</i>	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)
<i>Secondary</i>	64.43%	35.86%	21.88%	37.59%
<i>Tertiary</i>	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	RMA 1	RMA 2
280920	Phosphoric acid and polyphosphoric	7.94%	2.98%	21.2%	-18.23%	354.55	180.65	0.51	0.86
251010	Unground (Calcium Phosphate)	4.35%	1.69%	11.5%	-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

HS Code	Product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA 1	RMA 2
721049	Otherwise plated or coated with zinc (flat-rolled 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		28.1%	12.7%	69.3%					
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



HS Code	Product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA1	RMA2
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

HS Code	Product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA1	RMA2
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 derivatives 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	4.33%	0.00%	4.48%	-4.48%	1528.68	0.00	0.00	0.00

HS Code	Product description	xWld (1)	x EU (2)	x RoW (3)	(2)-(3) RMA3	RCA	BRCA	RMA1	RMA2
	(Nitrogenous Fertilizers)								
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 poly-phosphoric	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 NTBs Analysis**

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 shortcomings 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).
  6. 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 ex-

ports 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 (i.e. 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.

**Appendix 2 Table 1. Jordan 6-digit sectoral identification**

		Share of Export to:			3 - 2	RCA	BRC A	RMA 1	RMA 2
		World	EU	RoW					
611490	Of other textile materials (garnments)	6.46	0.12	6.68	6.56	779.75	46.97	0.060	0.002
310290	Other, including mixtures (Nitrogenous Fertilizers)	4.33	0.00	4.48	4.48	1528.68	0.00	0.000	0.000
620459	Skirts and divided skirts :-	4.28	0.43	4.41	3.99	307.28	23.87	0.078	0.008
610690	Of other textile materials (Women's Blouses)	2.67	0.04	2.77	2.73	428.22	8.76	0.020	0.001
280920	Phosphoric acid and polyphosphoric	2.43	0.01	2.52	2.51	108.63	0.79	0.007	0.000
070200	Tomatoes, fresh or chilled.	2.50	0.75	2.56	1.81	48.99	10.15	0.207	0.024
761290	Other (Aluminium Casks)	1.90	0.17	1.96	1.79	64.49	4.22	0.066	0.007
611020	Of cotton (Jerseys, Pullovers)	3.08	1.41	3.14	1.73	25.89	11.04	0.426	0.037
300390	Other (Medicaments)	1.81	0.15	1.87	1.72	42.62	3.71	0.087	0.006
151620	Vegetable fats and oils	1.64	0.00	1.70	1.70	63.75	0.00	0.000	0.000
240290	Other (Cigars, Cigarettes)	1.49	0.00	1.54	1.54	1246.69	0.00	0.000	0.000
611420	Of cotton (Other Garments, Knitted or Crocheted)	1.44	0.03	1.49	1.47	137.00	2.88	0.021	0.001
610520	Of man-made fibres	1.29	0.00	1.34	1.34	160.78	0.00	0.000	0.000
010410	Sheep	1.15	0.00	1.20	1.20	121.94	0.00	0.000	0.000
854420	Co-axial cable and other co-axial e	1.04	0.00	1.08	1.08	25.51	0.00	0.000	0.000
271000	Petroleum oils and oils obtained fr	1.02	0.00	1.06	1.06	0.26	0.00	0.000	0.000
620463	Trousers, bib and brace overalls, b	0.95	0.04	0.98	0.95	30.82	0.91	0.030	0.003
610610	Of cotton	1.37	0.50	1.40	0.90	40.49	14.64	0.362	0.029
300490	Other	5.17	4.41	5.20	0.79	2.98	1.70	0.569	0.069
870210	With compression-ignition internal	0.62	0.00	0.64	0.64	7.37	0.00	0.000	0.000
610990	Of other textile materials	0.59	0.00	0.61	0.61	8.84	0.00	0.000	0.000

		Share of Export to:			3 - 2	RCA	BRC A	RMA 1	RMA 2
		World	EU	RoW					
620449	Dresses :-- Of other textile materi	0.61	0.05	0.63	0.59	60.78	3.71	0.061	0.006
340120	Soap in other forms	0.64	0.09	0.66	0.57	38.78	3.62	0.093	0.011
610711	Underpants and briefs :-- Of cotton	0.54	0.00	0.56	0.56	32.35	0.00	0.000	0.000
620439	Jackets and blazers :-- Of other te	0.52	0.03	0.54	0.51	41.54	1.61	0.039	0.004
220210	Waters, including mineral waters an	0.49	0.00	0.50	0.50	9.42	0.00	0.000	0.000
340290	Other	0.45	0.00	0.46	0.46	13.33	0.02	0.002	0.000
310390	Other	0.43	0.01	0.44	0.43	593.66	16.26	0.027	0.002
480300	Toilet or facial tissue stock, towe	0.49	0.10	0.51	0.40	23.88	3.55	0.149	0.017
283650	Calcium carbonate	0.39	0.02	0.41	0.39	57.13	1.50	0.026	0.004
620419	Suits :-- Of other textile material	0.40	0.03	0.41	0.38	112.76	19.89	0.176	0.006
620342	Trousers, bib and brace overalls, b	0.36	0.00	0.37	0.37	2.36	0.00	0.000	0.000
070930	Aubergines (egg-plants)	0.38	0.03	0.40	0.37	147.59	7.83	0.053	0.006
611300	Garments, made up of knitted or cro	0.34	0.00	0.35	0.35	81.30	0.00	0.000	0.000
852812	Reception apparatus for television,	0.33	0.00	0.35	0.35	0.60	0.00	0.000	0.000
481840	Sanitary towels and tampons, napkin	0.32	0.00	0.33	0.33	4.31	0.00	0.000	0.000
210690	Other	0.37	0.07	0.38	0.31	2.39	0.45	0.190	0.015
620469	Trousers, bib and brace overalls, b	0.30	0.01	0.31	0.31	11.15	0.23	0.021	0.002
481810	Toilet paper	0.29	0.00	0.30	0.30	12.54	0.05	0.004	0.001
611010	Of wool or fine animal hair	0.28	0.00	0.30	0.29	6.94	0.00	0.000	0.000
282739	Other chlorides:-- Other	0.32	0.05	0.33	0.28	131.37	19.49	0.148	0.011
611410	Of wool or fine animal hair	0.27	0.00	0.28	0.28	459.28	0.00	0.000	0.000
845012	Machines, each of a dry linen capac	0.27	0.00	0.28	0.28	40.92	0.00	0.000	0.000
841510	Window or wall types, self-containe	0.38	0.11	0.39	0.27	5.39	2.46	0.456	0.024
230990	Other	0.26	0.00	0.27	0.27	4.45	0.00	0.000	0.000
620530	Of man-made fibres	0.26	0.00	0.27	0.27	19.55	0.00	0.000	0.000
070700	Cucumbers and	1.02	0.76	1.03	0.27	65.68	34.24	0.521	0.060

		Share of Export to:			3 - 2	RCA	BRC A	RMA 1	RMA 2
		World	EU	RoW					
	gherkins, fresh or ch								
610910	Of cotton	0.26	0.00	0.26	0.26	1.33	0.00	0.000	
010420	Goats	0.25	0.00	0.26	0.26	277.16	0.00	0.000	
340220	Preparations put up for retail sale	0.25	0.00	0.26	0.26	2.94	0.00	0.000	

Appendix 2 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	
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%

<b>23</b>	Residues & waste from the food indu	0.27%	0.26%	0.00%	0.27%	0.27%
	<b>TOTAL</b>	<b>78.69%</b>	<b>59.03%</b>	<b>9.51%</b>	<b>60.79%</b>	<b>51.28%</b>

**Appendix 2 Table 3. Egypt 6-digit sectoral identification**

		Share of Export to:			3 - 2	RCA	BRC A	RMA 1	RMA 2
		World	EU	RoW					
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 indenta- tions, 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 traver- tine :-- Merely cu	0.47%	0.08%	0.81%	0.73%	117.1	18.91	0.16	0.20
210690	Other (Food prepa- rations)	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 con- struction, (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 (car- pets)	0.34%	0.22%	0.45%	0.23%	14.85	6.59	0.44	0.98
300490	Other (Medica- ments)	0.33%	0.02%	0.60%	0.58%	0.20	0.01	0.04	0.07
701810	Glass beads, imita- tion 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

		Share of Export to:			3 - 2	RCA	BRC A	RMA 1	RMA 2
		World	EU	RoW					
100620	Husked (brown) rice	0.28%	0.05%	0.49%	0.44%	30.49	4.07	0.13	0.19
251010	Unground (natural calcium Phosphates i.e. Salt)	0.26%	0.02%	0.48%	0.46%	28.36	2.28	0.08	0.08
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

		Share of Export to:			3 - 2	RCA	BRC A	RMA 1	RMA 2
		World	EU	RoW					
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

Appendix 2 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	
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	1.91%	0.33%	0.01%	0.61%	0.60%

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	
	thereof					
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%

Appendix 2 Table 5. Israel 6-digit sectoral identification

		Share of Export to:			3 - 2	RCA	BRC A	RM A1	RM A2
		World	EU	RoW					
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%	188.7	184.0	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	0.36%	0.16%	0.43%	0.27%	1.95	0.81	0.42	0.31



		Share of Export to:			3 - 2	RCA	BRC A	RM A1	RM A2
		World	EU	RoW					
	steel)								
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 of bodi	0.09%	0.02%	0.12%	0.11%	0.23	0.04	0.16	0.11
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%	109.4	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 accesso-	0.05%	0.00%	0.07%	0.06%	5.45	0.52	0.09	0.06

		Share of Export to:			3 - 2	RCA	BRC A	RM A1	RM A2
		World	EU	RoW					
	ries								
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

Appendix 2 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	
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 & prod- uct of th	0.11%	0.10%	0.03%	0.12%	0.10%

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	
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%

Appendix 2 Table 7. Morocco 6-digit sectoral identification

		Share of Export to:			3 - 2	RCA	BRCA	RM A1	RM A2
		World	EU	RoW					
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	0.15%	0.04%	0.44%	0.40%	36.02	24.84	0.69	0.55

		Share of Export to:			3 - 2	RCA	BRCA	RM A1	RM A2
		World	EU	RoW					
	other algae								
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

Appendix 2 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	
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%

**Appendix 2 Table 9. Tunisia 6-digit sectoral identification**

		Share of Export to:			3 - 2	RCA	BRC A	RMA 1	RMA 2
		World	EU	RoW					
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%	206.8	0.03	0.00	0.00
310310	Superphosphates	1.29%	0.35%	4.47%	4.11%	197.5	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%	213.4	173.77	0.81	0.47
200290	Other	0.25%	0.01%	1.07%	1.06%	15.50	0.30	0.02	0.04

		Share of Export to:			3 - 2	RCA	BRC A	RMA 1	RMA 2
		World	EU	RoW					
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-trailers fo	0.13%	0.02%	0.48%	0.45%	1.80	0.26	0.14	0.38
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

**Appendix 2 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	
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. EU-MED Trade Potential and the Impact of the EU-MED FTAs on trade**



## 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:

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

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, Jordan, 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.

**Appendix 3 Table 1. Full set of results as presented in Table 13 of chapter 4**

	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

	<b>Coefficient</b>	<b>t-stat</b>	<b>P&gt; t </b>	<b>Coefficient</b>	<b>t-stat</b>	<b>P&gt; t </b>
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 Egypt 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

	<b>Coefficient</b>	<b>t-stat</b>	<b>P&gt; t </b>	<b>Coefficient</b>	<b>t-stat</b>	<b>P&gt; t </b>
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	-171.3	0	-2.539	170.78	0
Number of observations	229946			229946		
R-squared	0.4779			0.4779		

*Notes.*

Dependent variable: log of bilateral exports.

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 (1960-73), 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).

**Appendix 3 Table 2. Previous gravity studies on potential EU-Med and intra-Med trade flows**

Authors	Sample and estimation technique	Main findings	Potential Trade Flows of EuroMed countries to the EU and within the region																																				
Péridy (2005a)	Algeria, Morocco, Tunisia, Egypt, Jordan with 42 main trading partners over 1975-2001 period Hausman-Taylor and Arellano-Bond-Bover, potential flows estimated using out-of-sample technique	Trade close to potential between the MENA countries due to the lack of trade complementarity and low GDP levels.	<p style="text-align: center;">TABLE VI ESTIMATIONS OF ACTUAL/POTENTIAL EXPORT RATIOS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="border-top: 1px solid black; border-bottom: 1px solid black;">From\To</th> <th style="border-top: 1px solid black; border-bottom: 1px solid black;">Algeria</th> <th style="border-top: 1px solid black; border-bottom: 1px solid black;">Morocco</th> <th style="border-top: 1px solid black; border-bottom: 1px solid black;">Tunisia</th> <th style="border-top: 1px solid black; border-bottom: 1px solid black;">Egypt</th> <th style="border-top: 1px solid black; border-bottom: 1px solid black;">Jordan</th> </tr> </thead> <tbody> <tr> <td>Algeria</td> <td style="text-align: center;">—</td> <td style="text-align: center;">1.180</td> <td style="text-align: center;">1.290</td> <td style="text-align: center;">1.140</td> <td style="text-align: center;">1.080</td> </tr> <tr> <td>Morocco</td> <td style="text-align: center;">0.880</td> <td style="text-align: center;">—</td> <td style="text-align: center;">1.080</td> <td style="text-align: center;">1.210</td> <td style="text-align: center;">1.130</td> </tr> <tr> <td>Tunisia</td> <td style="text-align: center;">0.960</td> <td style="text-align: center;">0.920</td> <td style="text-align: center;">—</td> <td style="text-align: center;">1.030</td> <td style="text-align: center;">0.980</td> </tr> <tr> <td>Egypt</td> <td style="text-align: center;">0.880</td> <td style="text-align: center;">0.630</td> <td style="text-align: center;">0.790</td> <td style="text-align: center;">—</td> <td style="text-align: center;">0.620</td> </tr> <tr> <td>Jordan</td> <td style="text-align: center;">0.960</td> <td style="text-align: center;">1.010</td> <td style="text-align: center;">0.930</td> <td style="text-align: center;">0.820</td> <td style="text-align: center;">—</td> </tr> </tbody> </table>	From\To	Algeria	Morocco	Tunisia	Egypt	Jordan	Algeria	—	1.180	1.290	1.140	1.080	Morocco	0.880	—	1.080	1.210	1.130	Tunisia	0.960	0.920	—	1.030	0.980	Egypt	0.880	0.630	0.790	—	0.620	Jordan	0.960	1.010	0.930	0.820	—
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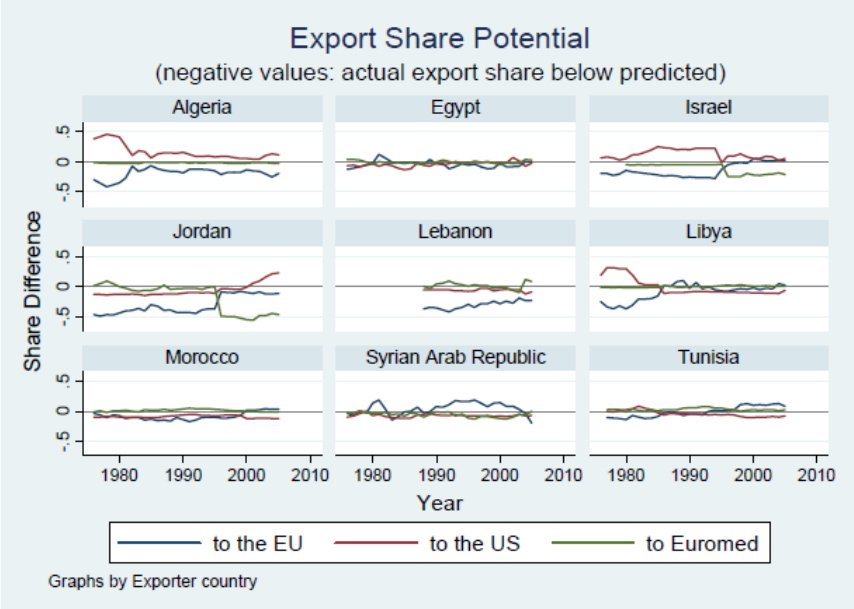
Authors	Sample and estimation technique	Main findings	Potential Trade Flows of EuroMed countries to the EU and within the region																																																																																																						
Péridy (2005b)	65 EU15 partners covering 95% of EU imports over 1993-2003 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.	<p style="text-align: center;">Table 6 : NNCs' export potential to the EU (*)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Actual exports to the EU-15 million US\$ (2003)</th> <th>Export Pot. (1) out-sample WEI-1 (%)</th> <th>Export Pot. (2) out-sample WEI-2 (%)</th> <th>Export Pot. (3) out-sample No WEI (%)</th> <th>Export Pot. (4) in-sample %</th> </tr> </thead> <tbody> <tr><td>Russia</td><td>48038.3</td><td>14.2</td><td>11.7</td><td>4.7</td><td>7.5</td></tr> <tr><td>Belarus</td><td>957.2</td><td>50.1</td><td>50.9</td><td>45.5</td><td>40.6</td></tr> <tr><td>Ukraine</td><td>3314.0</td><td>37.1</td><td>36.3</td><td>30.2</td><td>28.0</td></tr> <tr><td>Moldova</td><td>265.8</td><td>61.0</td><td>62.6</td><td>57.9</td><td>43.6</td></tr> <tr><td>Israel</td><td>7269.1</td><td>-0.8</td><td>-0.9</td><td>-5.0</td><td>-26.2</td></tr> <tr><td>Algeria</td><td>13483.2</td><td>24.4</td><td>23.6</td><td>18.1</td><td>8.2</td></tr> <tr><td>Morocco</td><td>6153.5</td><td>17.6</td><td>17.3</td><td>12.1</td><td>-3.0</td></tr> <tr><td>Tunisia</td><td>6169.2</td><td>17.3</td><td>17.6</td><td>11.5</td><td>-7.6</td></tr> <tr><td>Syria</td><td>2631.4</td><td>28.3</td><td>29.2</td><td>26.4</td><td>4.5</td></tr> <tr><td>Egypt</td><td>2977.9</td><td>27.8</td><td>27.1</td><td>24.2</td><td>13.3</td></tr> <tr><td>Jordan</td><td>144.2</td><td>54.1</td><td>55.6</td><td>53.8</td><td>30.6</td></tr> <tr><td>Lebanon</td><td>197.3</td><td>48.9</td><td>50.8</td><td>47.9</td><td>23.2</td></tr> <tr><td>Libya</td><td>10118.1</td><td>5.0</td><td>6.9</td><td>-2.7</td><td>-24.6</td></tr> <tr><td>Azerbaijan</td><td>980.4</td><td>60.8</td><td>62.2</td><td>59.3</td><td>46.1</td></tr> <tr><td>Armenia</td><td>319.9</td><td>68.9</td><td>70.8</td><td>68.4</td><td>52.4</td></tr> <tr><td>Georgia</td><td>168.3</td><td>66.3</td><td>67.8</td><td>65.2</td><td>51.9</td></tr> </tbody> </table> <p>*) Difference between fitted and actual exports as a percentage of fitted exports.</p>		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
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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.	<p><b>Table 2: Projected export and import annual growth rates (in %age).</b></p> <table border="1"> <thead> <tr> <th></th> <th rowspan="2">Projected GDP per capita annual growth rates 2003-07</th> <th colspan="2">France</th> <th colspan="2">Germany</th> <th colspan="2">Italy</th> <th colspan="2">Spain</th> <th colspan="2">UK</th> <th colspan="2">EU</th> </tr> <tr> <th>CEEC</th> <th>E<sup>1</sup></th> <th>M<sup>2</sup></th> <th>E</th> <th>M</th> <th>E</th> <th>M</th> <th>E</th> <th>M</th> <th>E</th> <th>M</th> <th>E</th> <th>M</th> </tr> </thead> <tbody> <tr> <td>Bulgaria</td> <td>8,2</td> <td>9,7</td> <td>6,4</td> <td>9,4</td> <td>5,7</td> <td>9,6</td> <td>6,1</td> <td>10,2</td> <td>7,3</td> <td>10,0</td> <td>7,0</td> <td>9,8</td> <td>6,5</td> </tr> <tr> <td>Estonia</td> <td>5,8</td> <td>7,2</td> <td>5,1</td> <td>6,8</td> <td>4,5</td> <td>7,0</td> <td>4,9</td> 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<sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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
				Projected GDP per capita annual growth rates 2003-07		France		Germany		Italy		Spain		UK		EU																																																																																																																																																																																																																																																																																																																																		
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			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 <sup>3</sup>	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																																																																																																																																																																																																																																																																																																																																		
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			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																																																																																																																																																																																																																																																																																																																																		
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			The Czech Republic <sup>3</sup>	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																																																																																																																																																																																																																																																																																																																																		
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Authors	Sample and estimation technique	Main findings	Potential Trade Flows of EuroMed countries to the EU and within the region							
Nuget and Yosef (2005)	Each pair of countries in world trade over 1970-1992. Panel regressions	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).	<b>Table 11: Comparisons of Actual and Predicted Levels of Bilateral Trade Flows Aggregated in Regions Under Different Modelling Assumptions and Trade Policy Scenarios Total Trade</b>							
			<b>Region</b>	<b>Year</b>	<b>No. Obs.</b>	<b>Actual</b>	<b>Predicted</b>			
						(1)	(2) Oil and OneFTA and CU Dummies Included	(3) Same as (2) but with MENA FTA	(4) Same as (2) but with EU-Med FTA but no MENA FTA	(5) Same as (4) but with MENA FTA as well
			MENA	80	130	26,454	9576	21,347	9576	21,346
				85	109	7007	9040	20,153	9040	20,154
				90	120	6736	7623	16,694	7623	16,994
				92	86	6337	9465	21,000	9465	21,100
			EU	80	246	314,313	74143	77,400	172,550	172,550
				85	241	96,930	82780	86,512	192,865	192,865
	90	234	75,777	97445	102,554	228,626	228,626			
	92	236	83,420	114136	120,156	267,867	267,867			



Authors	Sample and estimation technique	Main findings	Potential Trade Flows of EuroMed countries to the EU and within the region																																										
Söderling (2005)	90 countries, covering 90% of world trade. Random effects Tobit model, Hausman-Taylor and fixed effects, out-of-sample estimates and panel with country-pair specific effects	Most EuroMed countries' exports surpass model predictions. Egypt, Morocco and Jordan tend to under export to large EU countries. Tunisia's exports exceed potential in all EU countries.	<p style="text-align: center;">Table 2. Estimated Trade Potentials (percent of GDP unless otherwise indicated)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Algeria</th> <th style="text-align: center;">Egypt</th> <th style="text-align: center;">Jordan</th> <th style="text-align: center;">Morocco</th> <th style="text-align: center;">Syria</th> <th style="text-align: center;">Tunisia</th> </tr> <tr> <th style="text-align: center;">Country</th> <th style="text-align: center;">Export potential</th> <th style="text-align: center;">Country Export potential</th> <th style="text-align: center;">Country Export potential</th> <th style="text-align: center;">Country Export potential</th> <th style="text-align: center;">Country Export potential</th> <th style="text-align: center;">Country Export potential</th> </tr> </thead> <tbody> <tr> <td colspan="7">EU</td> </tr> <tr> <td>Total export potential</td> <td style="text-align: center;">-21.6</td> <td style="text-align: center;">-0.1</td> <td style="text-align: center;">3.5</td> <td style="text-align: center;">4.5</td> <td style="text-align: center;">-12.3</td> <td style="text-align: center;">-13.8</td> </tr> <tr> <td colspan="7">Actual/predicted exports</td> </tr> <tr> <td>Unweighted average</td> <td style="text-align: center;">495.7</td> <td style="text-align: center;">169.1</td> <td style="text-align: center;">47.7</td> <td style="text-align: center;">103.0</td> <td style="text-align: center;">276.0</td> <td style="text-align: center;">167.4</td> </tr> </tbody> </table>		Algeria	Egypt	Jordan	Morocco	Syria	Tunisia	Country	Export potential	Country Export potential	Country Export potential	Country Export potential	Country Export potential	Country Export potential	EU							Total export potential	-21.6	-0.1	3.5	4.5	-12.3	-13.8	Actual/predicted exports							Unweighted average	495.7	169.1	47.7	103.0	276.0	167.4
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Authors	Sample and estimation technique	Main findings	Potential Trade Flows of EuroMed countries to the EU and within the region
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.	<p style="text-align: center;"><b>Figure 4: Export share potentials index</b></p>  <p style="text-align: center;"><b>Export Share Potential</b> (negative values: actual export share below predicted)</p> <p style="text-align: center;">Graphs by Exporter country</p> <p><b>Note:</b> 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).</p>

Authors	Sample and estimation technique	Main findings	Potential Trade Flows of EuroMed countries to the EU and within the region																																																																																																																																																												
			<p><b>Table 5: Largest and smallest export share potentials by country</b></p> <p><b>Difference between actual and predicted share of exports. Average 2000-2005</b> (in percentage of total exports)</p> <table border="1"> <thead> <tr> <th colspan="2">Algeria</th> <th colspan="2">Egypt</th> <th colspan="2">Israel</th> </tr> </thead> <tbody> <tr> <td colspan="6">Top 5 countries (actual trade share above that predicted by gravity model)</td> </tr> <tr> <td>Italy</td> <td>7.67</td> <td>Italy</td> <td>7.29</td> <td>United States</td> <td>6.15</td> </tr> <tr> <td>United States</td> <td>7.36</td> <td>Spain</td> <td>2.21</td> <td>Belgium</td> <td>6.04</td> </tr> <tr> <td>Brazil</td> <td>5.49</td> <td>Syria</td> <td>1.78</td> <td>Hong Kong</td> <td>3.10</td> </tr> <tr> <td>Canada</td> <td>5.29</td> <td>India</td> <td>1.68</td> <td>Netherlands</td> <td>1.53</td> </tr> <tr> <td>Turkey</td> <td>3.49</td> <td>Saudi Arabia</td> <td>1.68</td> <td>Brazil</td> <td>1.12</td> </tr> <tr> <td colspan="6">Bottom 5 countries (actual trade share below that predicted by gravity model)</td> </tr> <tr> <td>Morocco</td> <td>-1.28</td> <td>France</td> <td>-1.82</td> <td>Turkey</td> <td>-0.38</td> </tr> <tr> <td>Spain</td> <td>-1.30</td> <td>Germany</td> <td>-2.46</td> <td>Italy</td> <td>-1.01</td> </tr> <tr> <td>United Kingdom</td> <td>-3.88</td> <td>United States</td> <td>-2.64</td> <td>Egypt</td> <td>-3.69</td> </tr> <tr> <td>Germany</td> <td>-6.75</td> <td>Israel</td> <td>-5.92</td> <td>United Kingdom</td> <td>-4.14</td> </tr> <tr> <td>France</td> <td>-12.72</td> <td>United Kingdom</td> <td>-7.45</td> <td>Jordan</td> <td>-18.78</td> </tr> <tr> <th colspan="2">Jordan</th> <th colspan="2">Lebanon</th> <th colspan="2">Libya</th> </tr> <tr> <td colspan="6">Top 5 countries (actual trade share above that predicted by gravity model)</td> </tr> <tr> <td>Iraq</td> <td>18.93</td> <td>United Arab Emirates</td> <td>10.56</td> <td>Spain</td> <td>7.44</td> </tr> <tr> <td>United States</td> <td>12.10</td> <td>Switzerland</td> <td>8.50</td> <td>Germany</td> <td>6.32</td> </tr> <tr> <td>India</td> <td>9.14</td> <td>Saudi Arabia</td> <td>5.15</td> <td>Turkey</td> <td>5.79</td> </tr> <tr> <td>Saudi Arabia</td> <td>5.31</td> <td>Iraq</td> <td>2.64</td> <td>Switzerland</td> <td>2.39</td> </tr> <tr> <td>United Arab Emirates</td> <td>3.17</td> <td>Kuwait</td> <td>2.48</td> <td>Tunisia</td> <td>1.41</td> </tr> <tr> <td colspan="6">Bottom 5 countries (actual trade share below that predicted by gravity model)</td> </tr> <tr> <td>Turkey</td> <td>-0.57</td> <td>Italy</td> <td>-3.15</td> <td>Japan</td> <td>-1.41</td> </tr> <tr> <td>Germany</td> <td>-1.67</td> <td>Germany</td> <td>-4.20</td> <td>Belgium</td> <td>-2.05</td> </tr> <tr> <td>Italy</td> <td>-1.78</td> <td>Syria</td> <td>-7.30</td> <td>Italy</td> <td>-3.35</td> </tr> <tr> <td>United Kingdom</td> <td>-4.08</td> <td>United States</td> <td>-8.19</td> <td>Netherlands</td> <td>-3.38</td> </tr> <tr> <td>Israel</td> <td>-53.92</td> <td>France</td> <td>-11.29</td> <td>United Kingdom</td> <td>-5.19</td> </tr> </tbody> </table>	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
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