



The Political Economy of Governance in the Euro-Mediterranean Partnership

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New Challenges: The impact of EU Enlargement on the Barcelona Process

International Competitiveness and Foreign Trade Specialisation in the Enlarged European Union and MPCs

**Division of Labour in the Mediterranean Neighbouring Countries and a Comparison
with seven new Member Countries, Turkey and the EU 15**

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1. Executive Summary

Aims of the Project

This paper aims to focus on the international competitiveness of Turkey, Czech Republic, Poland, Hungary, Bulgaria and Romania to compare the structure of specialisation in foreign trade with MPCs and the EU/15 by focussing on the years from 1995 to 2005.

The paper is divided into four main sections. The first section describes the methodology that is used to assess the competitiveness indices of these seven countries, MPCs and the EU/15. The second section focuses on the interpretation of the empirical results. This empirical analysis sheds light on the structural differences in trade sectors among the seven countries and the extent to which such differences have increased or decreased between the Seven, MPCs and the EU/15.

The third section draws some basic conclusions from these empirical results and considers the future position of the Seven within the enlarged EU. The last section gives brief conclusions on the results and considers the future position of the MPC's within the enlarged EU.

2 Introduction

In January 2007 the number of full members in the European Union increased from 25 to 27. After Eastern Enlargement in 2004, Bulgaria and Rumania joined the EU-Club. The main purpose of this research is twofold: Firstly, we intend to find out the foreign trade pattern and the structure of specialisation in foreign trade of the Mediterranean countries included in the Barcelona Euro-Mediterranean Partnership Project (MPCs- Algeria, Egypt, Israel, Jordan Morocco, Syria, Tunisia and the seven new member countries (Bulgaria, Cyprus - Greek part of Cyprus, Hungary, The Czech Republic, Malta, Poland, Romania), candidate country Turkey and the EU/15. Secondly, we will compare the structure of specialisation in foreign trade with each other and the EU/15 by focusing on the years from 1996 to 2005. In other words, we want to examine whether the foreign trade of MPCs has been negatively affected by the sixth and seventh enlargement or not. Additionally, we want to find out in which sectors they can compete with each other and where conflicts of interest can arise. Finally, we will draw some lessons and we make fundamental policy recommendations, on how the MPCs can be integrated into the proposed Euro-Free-Trade Zone, which is one of the main pillars of the Barcelona Process to be realised until 2010.

The paper is divided into four main sections. The first section summarizes the export and import developments of the countries in question between years 1996-2005. The second section describes the methodology and data sets. Empirical analysis stands in the third section, where in five subsections we investigate international competitiveness and trade specialisation using different indices. The final section gives brief conclusions on the results and considers the future position of the MPC's within the enlarged EU.

3. Export & Import Values

The figures below show the development of export and import values in the MPC's and the five new member countries in the period of 1995-2005:

Table 1a:

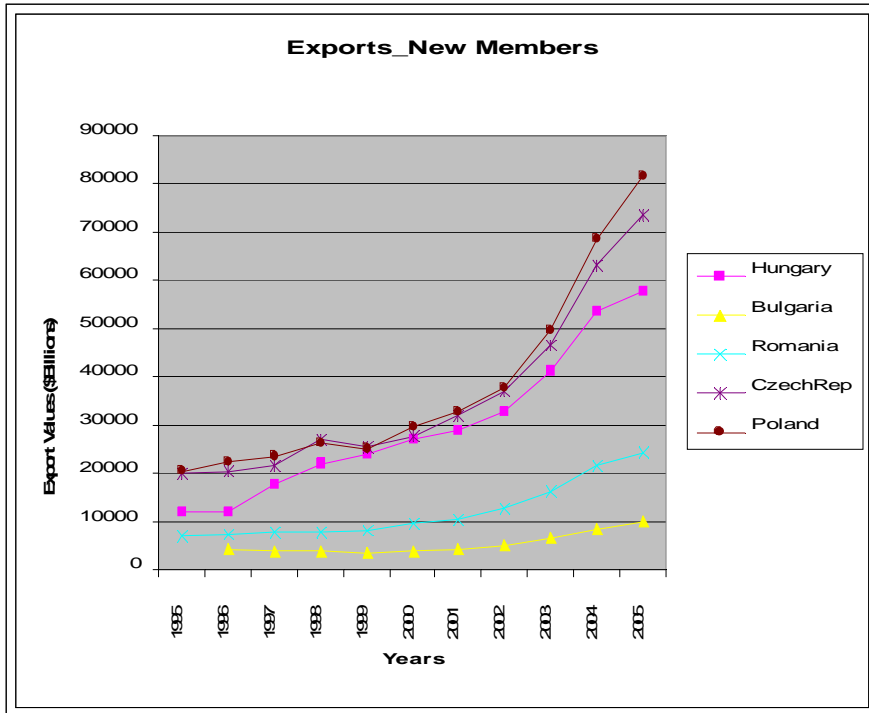
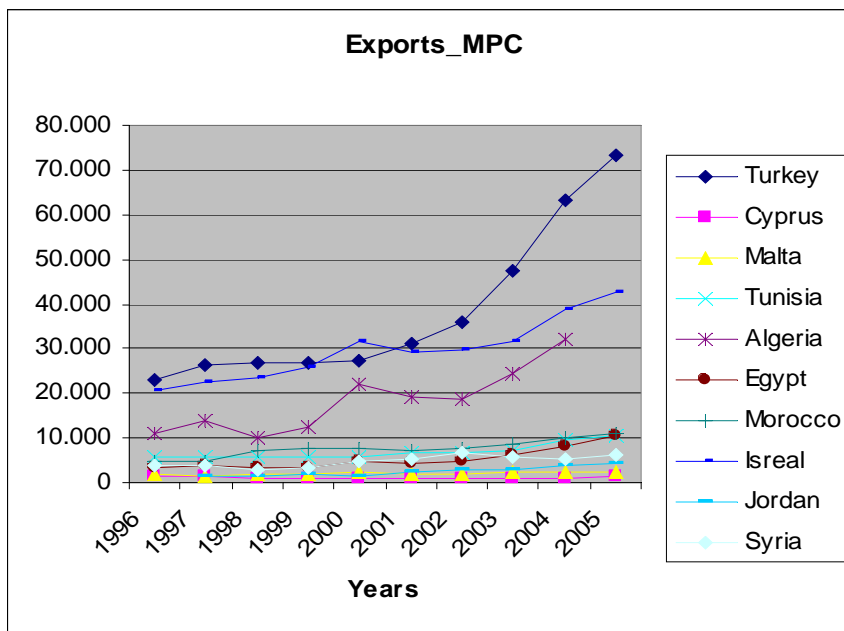


Table 1b:



Source: UNComtrade database

The figures above indicate that throughout years, except Israel and Turkey, MPCs had very low world export values. Among new member countries, Bulgaria and Romania show the lowest performance and both countries are far below from the rest of the group. However they still have higher export values than the MPC average.

Table 2a:

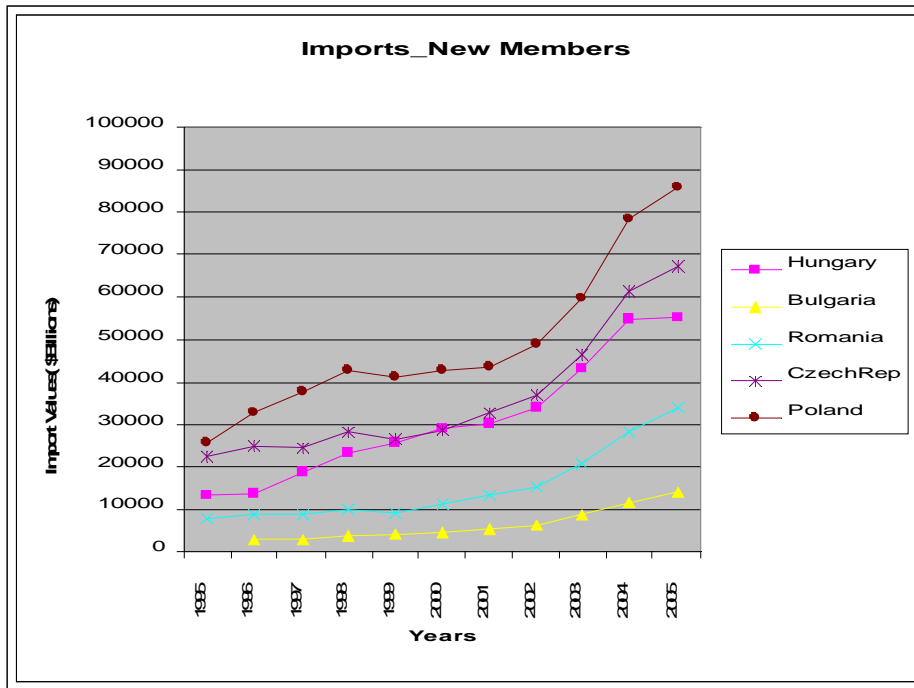
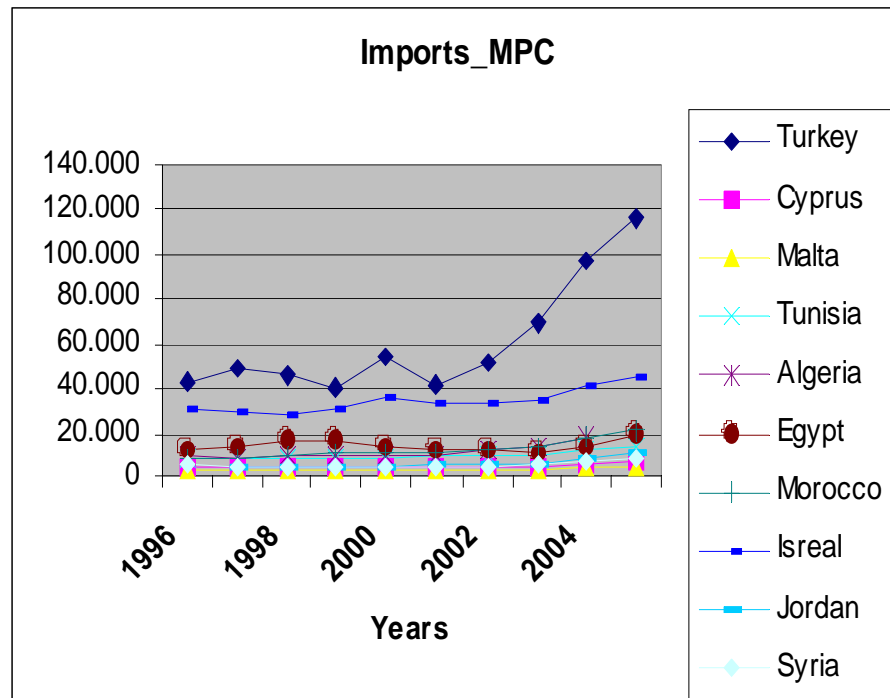


Table 2b:



Source: UNComtrade database

Here the import performances of the countries in question in the years 1995-2005 are shown. The figure indicates that again, except Turkey and Israel, the other MPCs have remarkably lower import values compared to the new members.

These two figures point out the strong correlation between export and import values of the countries. In the following sections we will analyse the import-export relations of these countries by using different trade indicators.

4. Methodology and data base

In order to estimate the trade competitiveness of the countries in question, we use the following indices:

1. “Revealed Comparative Advantage (RCA)Coefficient” (Balassa 1965)¹
2. “Comparative Export Performance (CEP) Index” (Donges 1982)²
3. “Trade Overlap (TO) Index” (Finger and de Rosa)³
4. “Export Similarity (ES) Index” (Finger and Kreinin 1979)⁴
5. “Export Conformity Coefficient (ECC)” (Fels and Horn 1972)⁵

In calculating the above indices, United Nations COMTRADE Database is used. The classification of the trading sectors is according to the “Standard International Trade Classification (SITC).” However, the trade sectors are grouped according to the “OECD Classification” which is raised by Mayer, Butkevicius and Kadri in their discussion paper: “Dynamic Products in World Exports”. The following table provides this grouping in detail:

The Standard International Trade Classification-2 (SITC2) is used during data mining from UNComtrade database. The sector grouping is done due to OECD Classification in which five different sub sectors are assigned, namely (1) Non-fuel primary commodities, (2) Resource-intensive manufactures, (3) Labour-intensive manufactures, (4) Differentiated products requiring specialised suppliers, (5) Scale-intensive manufactures and (6) Science-based manufactures.

¹ The methodology was originally developed by Bela Balassa (1965) and refined later.

² For methodology see Jurgen Donges et al. (1982).

³ For details on the methodology and its analytical applications see Finger and de Rosa (1979).

⁴ For methodology see Finger, J.M. and M.E. Kreinin (1979).

⁵ G. Fels and E.J. Horn (1972). An application for this coefficient to data of Greece, Portugal and Spain is contained in Donges and Schatz (1980) and Bahri Yilmaz

As an intuition, it can be said that the more developed a country is, the more it has exports in the last subgroups named above. For instance, it's not surprising to see that an economically very powerful country has strength in the export of science-based manufactures rather than non-fuel primary commodities.

OECD Classification is summarized in a table below:

OECD Classification:	SITC Rev. 2 Codes
<i>1. Non-fuel primary commodities:</i>	0, 1, 2 (less 233, 244, 266, 267), 4, 68
<i>2. Resource intensive manufactures:</i>	
Woods products	63, 82
Non-metallic mineral products	66
<i>3. Labour intensive manufactures:</i>	
Leather, textile, apparel, footwear	61, 65, 83, 84, 85
Fabricated metal products	69
Other manufactures excluding plastic	89 less 893
<i>4. Differentiated products requiring specialised suppliers:</i>	
Non-electrical machinery	71, 72, 73, 74
Electrical machinery	77
Communications equipment	76
<i>5. Scale intensive manufactures:</i>	
Paper	64
Chemicals excluding pharmaceuticals	5 less 54
Rubber and plastic products	62, 893
Iron and steel	67
Road motor vehicles	781, 782, 783, 784
Ships and other transport equipment	
Other than aerospace	79 less 792
<i>6. Science-based manufactures:</i>	

Aircraft	792
Computers and office equipment	75
Pharmaceuticals	54
Scientific instruments	87, 88

5. Empirical Analysis

In this section we have estimated the international competitiveness of the MPCs and new member countries and their trade patterns by implementing five trade indicators. Then we will compare the empirical results countries with each other and EU/15 as well. In the following the formulas for indices will be explained and the main findings of the empirical results will be briefly discussed.

1. Revealed Comparative Advantage Index

International competitiveness in terms of trade of these countries is calculated with revealed comparative advantage index. There are different formulations for this index.⁶ In this paper we use Balassa's (1965) formulation which is:

$$RCA = \ln \left[X_i / M_i \right] \left(\frac{\sum_{i=1}^n X_i}{\sum_{i=1}^n M_i} \right) \times 100. \quad (1)$$

In this formula, X refers to the exports and I refers to the imports of the country in question. The subscript "i" stands for the groups of commodities, for instance raw material intensive goods or labour intensive goods. "n" is six, since there are six groups of commodities. The higher the revealed comparative advantage index, the more successful is the trade performance of the country in that particular group of commodities.

⁶ Balassa, Bela (1965). *Trade Liberalization and Revealed Comparative Advantage*. The Manchester School of Social Studies 33, No: 2 pp: 99-123; Liesner, H.H. (1958). *The European Common Market and British Industry*. Economic Journal, 68, 302-16.; Vollrath, T.L. (1991). *A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed Comparative Advantage*, *Weltwirtschaftliches Archiv*, 130, 265-79.

Table 3: Revealed Comparative Advantage Index

TURKEY	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	-12,66	-9,34	-6,24	-3,26	4,54	-16,59	14,90	-21,45	-26,86	-29,01	-18,29
RIM	31,47	18,01	27,16	24,62	33,70	56,54	92,54	89,64	84,40	72,25	N/A
LIM	76,23	58,49	56,44	63,62	82,71	57,62	110,14	87,57	86,20	72,53	68,19
DPRSS	-107,14	-105,40	-103,40	-94,46	-97,69	-80,14	-83,06	-74,32	-68,12	-63,51	-62,24
SIM	-62,73	-63,19	-66,15	-69,76	-61,19	-67,76	-34,37	-32,55	-39,61	-34,65	-36,10
SBM	-226,84	-175,34	-146,59	-156,18	-121,64	-100,08	-129,88	-191,58	-149,21	-159,21	-184,56

BULG.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC		105,64	63,23	40,26	41,57	36,49	19,26	32,98	19,54	21,04	23,40
RIM		98,92	66,92	44,56	39,19	32,57	22,44	23,63	20,21	11,37	-9,12
LIM		27,76	-87,12	9,33	7,46	7,72	6,49	6,708	6,53	6,62	3,54
DPRSS		-26,39	-12,74	-55,97	-75,93	-73,05	-65,94	-66,02	-64,05	-61,03	-58,99
SIM		59,94	86,37	-2,62	-45,53	-35,77	-46,98	-54,45	-49,21	-55,20	-54,59
SBM		-68,06	-36,65	-71,42	-90,91	-82,06	-85,84	-74,69	-82,84	-86,64	-89,95

HUNG.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	56,31	51,66	49,43	43,14	40,15	26,28	37,05	30,96	25,99	12,12	21,06
RIM	20,82	33,52	32,12	29,51	33,87	30,34	30,99	18,68	12,80	5,81	13,35
LIM	-11,47	-6,99	-16,88	-23,67	-27,81	-27,94	-15,31	-13,93	-33,83	-33,30	-27,76
DPRSS	-19,67	-21,44	-8,77	-6,11	-10,33	-11,31	-4,96	2,83	5,85	7,06	12,28
SIM	-41,03	-45,45	-38,69	-43,84	-34,75	-29,01	-23,84	-27,53	-30,65	-27,53	-11,46
SBM	-79,65	-81,07	1,47	13,17	22,15	23,54	1,18	-6,40	4,96	18,68	19,09

POLAND	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	1,78	-13,85	-3,61	-9,40	-8,71	-8,08	-7,89	-6,16	4,87	8,15	18,24
RIM	71,07	57,89	47,16	42,13	50,97	61,78	72,87	82,73	97,71	110,32	112,92
LIM	2,55	-4,96	-8,23	-11,54	-13,03	-13,88	-13,46	-18,42	-13,41	-15,13	-13,50
DPRSS	-69,86	-66,78	-62,43	-58,70	-54,65	-41,55	-34,61	-27,42	-21,97	-21,37	-15,53
SIM	-17,17	-27,85	-39,76	-33,59	-35,48	-26,06	-21,10	-23,57	-23,96	-15,50	-7,45
SBM	-142,63	-117,19	-119,49	-125,34	-135,28	-141,77	-150,88	-152,64	-151,72	-140,15	-141,94

ROMAN.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	-31,87	-15,72	2,11	-22,11	9,06	3,38	-17,87	-14,53	-21,60	-17,46	-25,92
RIM	109,05	97,81	83,64	84,13	82,44	65,24	57,37	51,16	45,75	37,81	20,90
LIM	18,59	15,30	12,50	7,34	8,76	10,92	10,87	10,25	10,16	8,37	3,98
DPRSS	-94,50	-99,55	-98,88	-82,44	-74,51	-65,24	-52,23	-40,34	-46,12	-39,26	-38,18
SIM	21,14	5,06	13,72	-12,21	-10,11	-14,08	-28,85	-26,62	-30,22	-29,37	-29,48
SBM	193,59	-187,23	-196,77	-178,12	-137,98	126,65	-135,08	204,72	163,64	161,63	139,31

CZECH	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	-22,53	-31,95	-33,46	-37,73	-31,14	-31,91	-37,33	-44,10	-38,92	-42,19	
RIM	66,15	69,92	69,43	80,83	84,45	87,29	88,78	81,0	79,12	79,19	
LIM	15,29	7,64	7,58	11,27	10,52	10,44	8,61	0,87	2,89	0,61	
DPRSS	-35,68	-38,51	-28,62	-16,29	-17,94	-17,22	-13,80	-8,66	-7,31	3,30	

SIM	5,60	-2,50	2,85	11,39	13,30	13,32	13,14	12,41	10,04	10,77	
SBM	-116,71	-96,52	-84,59	-78,46	-81,56	-92,37	-64,71	-29,09	-24,44	-17,63	
SBM	-223,076	-228,316	-140,796	-155,265	-160,001	-146,955	-151,043	-155,133	-147,734	-159,559	
Israel											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
NFPC	-63,4758	-66,4117	-50,2191	-51,9528	-60,9147	-64,409	-35,2767	-34,4844	-64,1279	-71,2155	
RIM	3,217286	12,47256	21,53427	16,8637	23,66702	31,04498	27,50899	33,89301	34,32056	43,34095	
LIM	-16,4576	-10,2524	-11,0631	-6,94245	-7,09281	-13,7257	-2,02426	3,610393	-7,62759	-20,159	
DPRSS	-13,149	-26,701	-3,927	-6,66585	15,75543	11,83984	1,940034	5,025063	6,056657	-26,6632	
SIM	-94,1607	-105,267	-40,6544	-33,4257	-37,7069	-31,5035	-37,539	-28,7548	-17,9815	-36,7697	
SBM	-2,34977	-38,8598	8,108023	-11,6722	-14,7501	-18,3216	-0,32544	9,603637	26,61789	14,71388	
Jordan											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
NFPC		-13,3597	-21,0857	-18,3365	-39,5845	-23,2986	-16,2569	-22,4504	-27,7182	-21,0644	
RIM		7,487855	-29,2652	-14,2767	-29,2572	-27,6857	-14,4887	-19,1898	-33,9195	#DIV/0!	
LIM		-53,2267	-36,3443	-36,3342	-17,5161	-11,6156	-0,78048	7,629108	9,505093	3,028702	
DPRSS		-92,2141	-93,0966	-59,4756	-44,03	-66,8751	-69,0988	-79,3125	-76,5875	-78,9375	
SIM		-41,1611	-41,5614	-36,7798	-43,6262	-38,5495	-46,8614	-46,8731	-50,0667	-54,2973	
SBM		-49,0443	-37,381	-30,8224	-34,4431	-32,3394	-37,6209	-36,5004	-36,7215	-30,8909	
Syria											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
NFPC	-3,7337	-1,90023	1,378553	-8,58641	-9,13647	-6,84138	6,177042	-6,51462	-10,5396	-12,1135	
RIM	-113,453	-66,3938	-96,4963	-100,965	-62,5285	-103,982	-91,8286	-46,9974	-34,6604	-47,0706	
LIM	-14,4574	-14,4732	-26,389	-19,4815	-12,5262	-26,6876	5,886583	-1,44845	-10,2086	-6,86089	
DPRSS	-117,915	-160,591	-202,496	-175,817	-151,547	-117,103	-151,347	-116,991	-90,9152	-81,4988	
SIM	-116,552	-149,817	-158,753	-144,467	-123,893	-120,216	-156,935	-104,714	-77,9209	-69,8225	
SBM	-73,2446	-96,6653	-127,708	-74,0114	-108,097	-111,305	-142,71	-99,517	-70,8967	-48,7651	
NFPC	-23,6918	-14,9591	-10,5443	-13,6243	-15,7459	-15,7168	-16,0993	-11,3143	-10,2692		
RIM	-19,6268	-12,6986	-15,5273	-15,9979	-15,9229	-14,6725	-12,2548	-12,3104	#DIV/0!		
LIM	-18,5436	-15,4474	-11,0073	-14,2033	-14,3944	-14,1952	-14,7154	-11,63	-12,4629		
DPRSS	-34,5497	-23,9574	-16,1133	-15,9345	-19,7651	-18,7122	-22,1238	-19,1495	-19,3846		
SIM	-13,9793	-9,25725	-8,31117	-9,43259	-9,9447	-9,67359	-9,85105	-9,15636	-8,79052		
SBM	-30,7399	-22,9228	-17,8503	-15,6555	-17,5262	-26,1647	-25,2733	-21,6786	-19,4072		
Egypt											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
NFPC	-27,5894	-32,4297	-27,2207	-27,9539	-31,9447	-32,097	-36,2536	-38,1555	-34,5557	-35,1103	
RIM	-32,8999	-14,0833	-28,5227	-33,0642	-35,4474	-28,1833	-0,05479	7,508494	20,3896	11,91454	
LIM	1,612921	3,434898	-1,3999	-5,14494	-1,75653	-6,41949	-2,93731	-2,37732	-8,01538	-8,41189	
DPRSS	-76,1625	-82,039	-75,8057	-74,5131	-76,9525	-75,1742	-85,8241	-116	-121,541	-95,1662	
SIM	-38,606	-39,0719	-35,0818	-29,9806	-32,6437	-31,2838	-35,7585	-30,558	-36,8026	-35,5984	
SBM	-38,0057	-43,3852	-39,3151	-43,2627	-50,1756	-55,5716	-64,6973	-89,7773	-105,873	-70,4838	
Morocco											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
NFPC	2,424846	11,373	11,49414	14,51322	7,020994	2,628844	5,739494	8,637519	-0,82105	3,765371	
RIM	-33,2711	-41,8817	-43,8268	-41,1473	-45,6839	-36,3955	-10,2278	-41,8079	-64,2541	-58,1045	
LIM	25,73089	21,74219	23,50107	22,59285	21,65972	18,37368	16,30204	14,03795	9,371713	6,539838	
DPRSS	-167,242	-170,637	-96,2769	-84,2683	-80,9841	-77,2256	-59,6763	-55,6738	-63,0958	-52,9718	
SIM	-44,2446	-43,0337	-66,6395	-55,3143	-54,5605	-57,9929	-65,3067	-71,9209	-64,5973	-63,0272	

EU15	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	-16,63	-15,5	-15,13	-17,59	-16,27	-16,80	-15,76	-13,03	-12,36	-14,29	-14,58
RIM	19,01	19,62	19,87	15,52	12,30	11,22	15,31	13,27	11,59	9,48	7,35
LIM	-0,49	-0,10	0,29	-4,18	-5,48	-6,25	-5,91	-5,81	-6,43	-7,50	-8,87
DPRSS	26,10	28,15	28,37	23,28	18,40	15,18	18,34	23,39	21,07	24,86	22,05
SIM	17,31	18,52	20,41	17,28	14,32	17,42	16,83	23,25	18,76	23,51	18,04
SBM	0,39	-0,02	1,79	-3,79	-5,61	-3,95	3,09	-4,34	4,20	13,43	3,45

According to the Table 4, MPC's generally show a non-profiled export performance compared to the five new member EU countries and EU/15. It is noticeable that Cyprus, Algeria and Syria do not show up any positive export performance in any of the group of commodities.

As far as labour-intensive, resource-intensive manufactures are concerned, most of MPCs have a very strong position in these economic sectors. On the other hand, Israel has remarkable comparative advantages in science based manufactures in comparison to other MPCs. Meanwhile, Morocco and Malta have been performing very well in non-fuel primary commodities and differentiated products requiring specialised suppliers, respectively.

The pictures of the five new member countries in terms of RCA indices are much better than MPC's. Especially, The Czech Republic, Hungary and Poland have reached the performance of EU/15 in the exports of higher scaled groups of commodities (ex: SIM, SBM). Bulgaria and Romania are still good at the exports of lower scaled groups of commodities.

2. Comparative Export Performance Index

The comparative export performance index is based only on export shares. By this way, any possible distortions because of trade policy interventions to the imports (tariff or non-tariff barriers) in the revealed comparative advantage index can be eliminated. The comparative export performance index formula is as follows:

$$CEP = (x_j / X_w) / (\sum x_j / \sum X_w) \quad (2)$$

In this formula j refers to the country in question whereas w refers to the EU 15 countries as a whole. Comparative export performance index values above one means that the particular sector has a greater share in total exports of the country in question than it has in the EU15. In other words, that country has a relative advantage in that sector if this index is greater than 1.

Table 4: Comparative export performance index

Turkey	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	1,62	1,72	1,74	1,66	1,54	1,37	1,33	1,08	1,06	1,01	1,14
RIM	0,73	0,76	0,82	0,86	0,87	1,03	1,07	1,12	1,19	1,18	1,23
LIM	3,36	3,23	3,23	3,51	3,42	3,62	3,29	3,45	3,32	3,04	2,97
DPRSS	0,30	0,34	0,35	0,43	0,42	0,47	0,50	0,59	0,60	0,61	0,62
SIM	0,60	0,59	0,58	0,53	0,61	0,59	0,73	0,74	0,77	0,92	0,93
SBM	0,05	0,07	0,11	0,10	0,22	0,27	0,19	0,09	0,13	0,11	0,07

Bulg.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC		1,55	2,47	2,32	2,51	2,51	2,20	2,27	2,02	2,27	2,45
RIM		0,59	0,94	0,95	1,02	0,99	1,07	1,09	1,20	1,19	1,16
LIM		1,41	0,67	1,73	2,18	2,29	2,67	2,76	2,85	2,67	2,36
DPRSS		0,72	0,44	0,41	0,44	0,41	0,47	0,51	0,53	0,49	0,51
SIM		0,94	1,18	0,90	0,66	0,70	0,63	0,53	0,57	0,61	0,66
SBM		0,73	0,37	0,29	0,26	0,28	0,26	0,27	0,25	0,25	0,22

Hung.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	1,98	1,94	1,42	1,20	0,96	0,90	0,92	0,85	0,80	0,77	0,74
RIM	1,07	1,24	1,02	1,01	1,01	0,94	1,00	0,94	0,98	0,87	0,86
LIM	1,36	1,47	1,02	1,04	1,00	0,89	0,97	0,98	0,76	0,70	0,69
DPRSS	0,88	0,89	1,30	1,46	1,43	1,49	1,67	1,85	2,01	2,04	1,96
SIM	0,67	0,64	0,55	0,50	0,57	0,57	0,58	0,54	0,54	0,54	0,60
SBM	0,38	0,37	1,01	1,04	1,19	1,26	0,82	0,76	0,77	0,78	0,74

Poland	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	1,46	1,41	1,58	1,40	1,35	1,27	1,16	1,11	1,10	1,17	1,26
RIM	2,55	2,68	2,81	2,84	2,93	2,76	2,96	2,85	3,05	2,87	2,82
LIM	1,66	1,65	1,60	1,63	1,61	1,47	1,37	1,33	1,28	1,16	1,10
DPRSS	0,53	0,56	0,62	0,69	0,72	0,82	0,88	0,95	0,99	0,95	0,96
SIM	0,90	0,90	0,82	0,89	0,91	0,96	1,01	0,98	0,98	1,04	1,04
SBM	0,17	0,21	0,18	0,15	0,13	0,15	0,13	0,12	0,12	0,14	0,14
Rom.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	0,93	1,13	1,14	1,11	1,32	1,37	1,10	0,94	0,91	0,93	0,85
RIM	2,36	2,18	2,12	2,25	2,04	1,79	1,92	1,87	1,97	1,93	1,88
LIM	2,31	2,50	2,59	3,04	3,13	3,15	3,40	3,43	3,41	3,06	2,87
DPRSS	0,41	0,39	0,41	0,43	0,46	0,55	0,62	0,73	0,72	0,79	0,81
SIM	1,03	0,92	0,90	0,76	0,64	0,64	0,60	0,62	0,63	0,73	0,83
SBM	0,09	0,08	0,07	0,08	0,15	0,16	0,13	0,06	0,09	0,09	0,11

Czech	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	0,85	9,06E-05	0,76	0,66	0,68	0,69	0,61	0,55	0,55	0,56	0,57
RIM	1,92	0,000242	1,93	2,07	2,04	2,01	2,08	1,94	1,91	1,76	1,76
LIM	1,51	0,000168	1,36	1,35	1,39	1,39	1,30	1,23	1,23	1,19	1,20
DPRSS	0,90	0,000105	0,96	1,05	1,00	1,06	1,13	1,16	1,22	1,26	1,16
SIM	1,03	0,000117	1,09	1,04	1,07	1,06	1,04	0,98	0,96	0,96	1,03

SBM	0,29	4,01E-05	0,35	0,38	0,37	0,30	0,40	0,63	0,65	0,64	0,65
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Cyprus	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	4,308285	4,717414	4,303255	4,272537	4,355648	3,951343	3,016323	2,863415	2,430686	2,032922
RIM	0,604152	0,826492	0,887201	0,734671	0,872478	0,803216	0,866913	0,871156	0,552119	0,500011
LIM	1,090892	0,989893	1,203127	1,050971	1,174969	1,183735	1,102993	0,898345	0,825335	0,689705
DPRSS	0,373404	0,230418	0,24566	0,305316	0,196402	0,260745	0,239125	0,210752	0,694411	1,259153
SIM	0,213972	0,236677	0,392121	0,438186	0,48214	0,567968	0,848392	0,99649	0,749379	0,557577
SBM	0,428878	0,374498	0,455261	0,564902	0,61841	0,654739	0,853588	0,789084	1,124936	1,058083

Malta	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	0,265122	0,356294	0,292567	0,294552	0,259626	0,368022	0,556226	0,4816	0,422676	0,31396
RIM	0,10865	0,186871	0,155455	0,127457	0,100183	0,134173	0,150122	0,101399	0,101605	0,125871
LIM	1,677235	1,652982	1,499999	1,576981	1,217665	1,525922	1,628432	1,578407	1,510584	1,620523
DPRSS	2,418823	2,27989	2,471782	2,482797	2,793266	2,554553	2,444127	2,572045	2,584733	2,429714
SIM	0,18132	0,228879	0,235148	0,174936	0,139981	0,175975	0,219093	0,221317	0,228648	0,281559
SBM	0,697972	0,690942	0,541693	0,587839	0,39733	0,462674	0,502161	0,47311	0,50531	0,568159

Tunisia	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	0,755281	1,031212	0,928047	1,117598	1,015824	0,906628	0,799806	0,857161	1,138473	1,120239
RIM	0,426985	0,493961	0,489901	0,428916	0,486734	0,476965	0,501678	0,562615	0,519818	0,561052
LIM	4,344826	4,054194	4,29155	4,253689	4,539913	4,556399	4,662233	4,471682	4,285311	4,10542
DPRSS	0,419048	0,449572	0,523145	0,501923	0,537784	0,609113	0,609422	0,644754	0,649349	0,737415
SIM	0,554151	0,538417	0,511484	0,501337	0,468665	0,456915	0,46222	0,471456	0,466754	0,511231
SBM	0,088427	0,075004	0,087751	0,122584	0,143423	0,11463	0,16269	0,197508	0,226983	0,174856
Algeria	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	1,93107	2,174125	2,861071	1,962463	1,869071	1,712841	1,75014	2,492269	2,700062	
RIM	0,09549	0,200808	0,338974	0,453413	0,44735	0,628552	0,485014	0,596909	0,537571	
LIM	0,650496	0,377482	0,516651	0,326563	0,422714	0,508833	0,480088	0,532481	0,3292	
DPRSS	0,211441	0,112714	0,182233	0,465994	0,281759	0,391013	0,244451	0,167072	0,098844	
SIM	1,769334	1,931612	1,540936	1,675071	1,794917	1,868899	1,896721	1,644956	1,704488	
SBM	0,214519	0,099092	0,073853	0,334845	0,398746	0,04972	0,092913	0,046878	0,053328	

Egypt	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	2,787266	2,19785	2,705914	2,92078	2,893501	3,130257	3,114409	3,025383	3,259344	2,991195
RIM	0,515005	1,426272	0,734988	0,874866	0,607686	1,052922	2,565799	2,2303	3,322066	2,987262
LIM	3,046903	3,18625	3,096501	2,795728	3,005887	2,353244	2,057081	1,714102	1,45	1,493759
DPRSS	0,029088	0,036568	0,038972	0,053209	0,074538	0,088212	0,093669	0,07364	0,079346	0,082428
SIM	0,430983	0,52652	0,550681	0,62447	0,672277	0,75485	0,629812	0,855129	0,772799	0,907581
SBM	0,212405	0,22359	0,240724	0,187134	0,175737	0,173089	0,193565	0,126442	0,081429	0,120267

Morocco	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	3,42602	3,603187	2,570275	2,586976	2,739369	2,658186	2,647559	2,471947	2,461415	2,681525
RIM	0,342124	0,341115	0,259405	0,264157	0,269186	0,336138	0,503735	0,348478	0,284174	0,324489
LIM	1,811731	1,689525	3,240509	3,138152	3,260092	3,334513	3,204889	3,292184	3,294781	2,885196
DPRSS	0,102915	0,09792	0,327658	0,423281	0,427994	0,41219	0,512886	0,602203	0,586417	0,633288
SIM	0,705824	0,741889	0,45313	0,458052	0,439944	0,446133	0,401404	0,384695	0,454918	0,488444
SBM	0,027802	0,033049	0,079258	0,090013	0,079122	0,073749	0,093369	0,089027	0,07143	0,067774

Israel	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	0,519301	0,45159	0,533407	0,483376	0,4069	0,406672	0,532873	0,545085	0,407471	0,382418
RIM	8,664221	8,900331	6,281921	6,634171	6,953232	7,322065	8,184488	8,841181	8,967931	10,95668
LIM	1,105452	1,035759	0,814308	0,765139	0,716945	0,723831	0,765437	0,737586	0,649146	0,634606
DPRSS	0,838932	0,911217	0,99689	0,943601	1,158832	1,135559	0,947078	0,894144	0,871757	0,643434
SIM	0,243621	0,223117	0,489652	0,478648	0,439382	0,47473	0,405115	0,440632	0,501798	0,463031
SBM	0,674862	0,723876	1,093252	1,08404	0,816598	0,8197	0,883279	0,806752	0,875934	0,89577

Jordan	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	0	3,62716	3,409815	2,961937	2,127962	2,492589	2,516544	2,316129	2,197549	2,218556
RIM	0	1,04138	0,819872	0,726894	1,079426	0,807047	0,946176	0,84379	0,664323	0,57778
LIM	0	0,468688	0,769964	0,727225	1,572154	1,621974	2,11878	2,52005	2,918529	2,904185
DPRSS	0	0,224726	0,153203	0,349435	0,497221	0,370052	0,323507	0,282172	0,303607	0,334424
SIM	0	0,889948	0,866888	0,920679	0,806343	0,83354	0,652654	0,611392	0,609724	0,602835
SBM	0	0,452312	0,823959	0,898435	0,863073	0,736543	0,72428	0,720016	0,602554	0,627252

Syria	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NFPC	4,746663	5,196023	6,10194	5,785824	5,294015	6,656277	5,703975	4,973643	5,079759	4,568625
RIM	0,108647	0,101989	0,038247	0,024482	0,077764	0,080965	0,107753	0,322946	0,53256	0,498719
LIM	2,124126	1,854167	1,456465	1,923946	2,692691	1,379604	2,155203	2,39926	1,943441	2,068317
DPRSS	0,031944	0,020379	0,005052	0,005765	0,014924	0,020644	0,050515	0,077336	0,099369	0,129636
SIM	0,046008	0,053848	0,037149	0,040069	0,063161	0,038128	0,068353	0,157303	0,270161	0,38809
SBM	0,070013	0,046167	0,01762	0,051457	0,024756	0,007508	0,019967	0,031785	0,054627	0,10838

Source: UNComtrade Database, own calculations

Looking at Table 5, it is interesting to note that MPCs have been showing a remarkable export performance in the sectors in NFPC, LIM and RIM than EU15. Interestingly, in the case of export share of SIM Algeria has nearly the same share as the EU15. However, this does not show us that it is as advantageous as EU15, since we know from the RCA index that Algeria has no advantageous position in all of the commodity groups.

RIM is the group where new members except Hungary have higher share of exports than EU15 has. Export shares of SIM of Poland and Czech Rep. Are higher than EU15. However, not the same but similar to the case of Algeria which is stated above, one can not conclude that they are more advantageous than EU15 countries in terms of export of SIM.

3. Trade Overlap Index

In this part, we try to investigate whether the economies of the countries in question are integrated to the world economy and if so, to what extent. In order to analyse this, we need to analyse the countries under the aspect of inter-or intra-industry trade specialisation. Inter-industry trade means the exchange of manufactures for food, for instance. Intra-industry trade on the other hand, means the exchange of manufactures for manufactures. If a country has more intra-industry trade than inter-industry trade, this means that the country is integrated to the world economy to some extent and we can talk about some degree of liberalization in this country.

$$TO = 2 \sum_{i=1}^n \min(X_i, M_i) / \sum_{i=1}^n (X_i + M_i). \quad (3)$$

In the formula above, X and M refer to exports and imports respectively. The subscript i refers to the group of sectors, and min is the magnitude of the total trade that overlaps. The closer this index becomes to one, the more intra-industry specialisation exists, which means more integration to the world markets and more liberalization.

Table 5: Trade Overlap Index

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Turkey	0,55	0,55	0,55	0,55	0,58	0,53	0,66	0,65	0,65	0,66	0,67
Hungary	0,80	0,80	0,88	0,87	0,87	0,88	0,92	0,93	0,91	0,92	0,92
Romania	0,75	0,78	0,79	0,78	0,82	0,82	0,80	0,81	0,80	0,80	0,80
Bulgaria	-	0,77	0,74	0,86	0,74	0,78	0,77	0,76	0,77	0,75	0,74
Poland	0,80	0,74	0,71	0,71	0,70	0,75	0,79	0,79	0,82	0,84	0,86
C.Rep.	0,84	0,83	0,86	0,87	0,86	0,86	0,88	0,90	0,92	0,93	0,91
EU15	0,93	0,92	0,92	0,93	0,93	0,93	0,93	0,92	0,93	0,91	0,93

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cyprus	0,56	0,54	0,46	0,45	0,41	0,42	0,37	0,36	0,36	0,40
Malta	0,79	0,80	0,83	0,82	0,85	0,82	0,81	0,81	0,78	0,79
Tunisia	0,71	0,72	0,73	0,73	0,70	0,72	0,71	0,72	0,74	0,76
Algeria	0,16	0,08	0,06	0,07	0,08	0,08	0,09	0,06	0,06	-
Egypt	0,24	0,26	0,25	0,26	0,31	0,32	0,39	0,50	0,50	0,41
Morocco	0,73	0,71	0,72	0,73	0,75	0,77	0,77	0,74	0,73	0,75
Israel	0,82	0,73	0,88	0,90	0,87	0,87	0,91	0,89	0,88	0,82
Jordan	-	0,65	0,57	0,72	0,51	0,72	0,77	0,75	0,71	0,69
Syria	0,39	0,52	0,49	0,47	0,46	0,38	0,51	0,50	0,43	0,43

Source: UNComtrade Database, own calculations

During previous years, it is interesting to see that the EU/15 has achieved a high degree of trade overlap index, which means that EU/15 countries have specialised in intra-industry trade and have already integrated into world markets. At first sight it can be easily seen that Israel also has a higher trade overlap index than other MPCs, which means that to a large extent Israel has already realised intra-industry trade-specialisation and it seems to be that it has better integrated into the world markets than other MPCs. Israel is followed by Malta, Tunisia and Morocco and they still have intermediate positions. However, even Israel's trade overlap values are lower than those of EU15 and even smaller than that of new members Hungary and Czech Republic. This indicates that MPCs, as a whole, are mainly specialised more or less in the form of inter-industry trade.

Another important result is that Turkey has an intermediate position in comparison to some of new member countries such as the Czech Republic, Hungary and Poland. But the gap between Turkey and the EU/15 is getting smaller, which means that it needs more time to close the gap completely.

4. Export Similarities Index

The export similarity index measures the proportion of a country's exports matched by its competitor's exports in the same group of product. In this part, we analyse whether or not the exports of Turkey overlap with each of the five countries. The closer this index becomes to zero the greater similarity exists between the county in question and Turkey. If it happens to be one, this means there is no similarity.

$$ES(ab,c) = \sum \left[EX_i(ac) - \frac{EX_i(ac) + EX_i(bc)}{2} \right] \quad (5)$$

In this formula, the difference in export patterns of countries and b to market c is calculated. The market c is EU15 in our analysis, and country is Turkey. Country b is the other five countries one by one.

Table 6: Export Similarity Index:

Export Similarities											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cyprus		0,415672	0,443561	0,389751	0,392397	0,410524	0,384246	0,376806	0,394798	0,340948	0,411277
Malta		0,580091	0,545807	0,56411	0,564723	0,613856	0,551668	0,502389	0,511816	0,529305	0,516426
Tunisia		0,167965	0,133591	0,121449	0,122757	0,127004	0,178853	0,157545	0,15428	0,182599	0,169341
Algeria		0,414094	0,476386	0,477107	0,411944	0,460884	0,407854	0,466469	0,472007	0,470621	
Egypt		0,167434	0,104979	0,158964	0,178876	0,20898	0,224026	0,325843	0,317422	0,368439	0,308609
Morocco		0,277874	0,304521	0,117938	0,132062	0,166769	0,166151	0,191548	0,177694	0,2091	0,195445
Israel		0,569421	0,58821	0,508478	0,513334	0,518024	0,509545	0,503535	0,483979	0,493533	0,514197
Jordan			0,405934	0,4261	0,368493	0,246531	0,249052	0,263198	0,241835	0,217408	0,21529
Syria		0,431579	0,477087	0,578341	0,538129	0,47803	0,647834	0,566767	0,492805	0,506561	0,433871
Hungary	0,266451	0,237126	0,353352	0,385126	0,3908	0,396644	0,382785	0,397509	0,42289	0,439295	0,4277
Romania	0,243442	0,183981	0,172783	0,136035	0,073534	0,071612	0,080348	0,066867	0,071068	0,07756	0,079415
Bulgaria		0,272017	0,345789	0,233635	0,157073	0,175725	0,1161	0,172023	0,138266	0,177023	0,186472
Poland	0,250255	0,25817	0,241419	0,275954	0,266554	0,286127	0,262063	0,253191	0,243336	0,215156	0,210235
C.Rep.	0,362493	0,37121	0,388059	0,407682	0,366818	0,350816	0,329294	0,329772	0,311139	0,268014	0,27047 1

Source: UNComtrade Database, own calculations

Table 6 shows that there is a higher export similarity between Turkey and Romania, Tunisia, Morocco and Bulgaria. The lowest export similarity is found between Turkey Israel, Malta and Syria. Overall, Turkey has higher export similarity with the five new member countries than with the MPCs. In other words, Turkey has been competing with the five new member countries rather than the MPCs. Amongst new member countries; the highest export similarity of Turkey is with Romania and followed by Bulgaria. On the other hand, Hungary has the lowest export similarity with Turkey. The Czech Republic and Poland do not have many similar export industries with Turkey. This picture indicates that, in the case of Turkish accession into the EU, the Turkish industries would compete more with Romania and Bulgaria. In the case of establishment of the Free Trade Zone in 2010 Turkey ought to compete with Tunisia and Morocco.

5. Conformity Coefficient Index

The conformity coefficient index compares the exports of these countries in question with the exports of EU 15. The formula for this index is as following:

$$\frac{\sum_{i=1}^n x_i m_i}{\sqrt{(\sum_{i=1}^n X_i X_i)(\sum_{i=1}^n M_i M_i)}} \quad (6)$$

X and M refer to the exports of one of these countries and exports of EU15 to this one of these countries. The subscript *i* refers to one of the groups of commodities. The conformity coefficient index takes a value between 0 and 1. When it becomes closer to unity it means that the more identical the export structure of the country in question or with the EU15.

Conformity Coefficient											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Turkey		0,666172	0,659151	0,646144	0,671501	0,672003	0,764155	0,774286	0,788145	0,834694	0,848385
Cyprus		0,840658	0,859756	0,797544	0,819156	0,82131	0,838811	0,896279	0,886812	0,912279	0,900079
Malta		0,929731	0,942399	0,955602	0,952039	0,972806	0,947869	0,949809	0,946914	0,924637	0,927011
Tunisia		0,883995	0,89058	0,898618	0,887525	0,871223	0,887731	0,883533	0,883543	0,884524	0,905814
Algeria		0,798546	0,73209	0,827085	0,816765	0,766944	0,743158	0,716906	0,775172	0,78008	
Egypt		0,703918	0,652505	0,69588	0,749824	0,770009	0,858625	0,870292	0,901067	0,904367	0,909942
Morocco		0,871728	0,866425	0,858305	0,873424	0,882406	0,899933	0,903282	0,880045	0,870068	0,88788
Isreal		0,92884	0,867546	0,967436	0,97828	0,971648	0,968057	0,975175	0,975428	0,97337	0,934747
Jordan			0,752614	0,763664	0,811176	0,831586	0,919915	0,927282	0,97254	0,982718	0,998825
Syria		0,477112	0,593491	0,564902	0,633042	0,620642	0,534714	0,551175	0,598138	0,617207	0,646178
Hungary	0,91726 8	0,921733	0,969534	0,974269	0,980292	0,986458	0,993054	0,991132	0,987095	0,989547	0,994511
Romania	0,88692 1	0,8879	0,893039	0,912678	0,933591	0,934283	0,940167	0,950283	0,942257	0,951416	0,959291
Bulgaria		0,958211	0,917128	0,961886	0,873706	0,909056	0,908657	0,893019	0,909552	0,892253	0,883965
Poland	0,92550 7	0,925293	0,911197	0,930107	0,930785	0,950851	0,958808	0,964874	0,964831	0,970131	0,971326
C.Rep.	0,95449 1	0,956219	0,970234	0,973144	0,970601	0,972457	0,977509	0,985144	0,98884	0,991872	0,99024 9

Source: UNComtrade Database, own calculations

Table 7 shows very interesting findings It indicates that Israel, Malta, Jordan, Tunisia, Cyprus and Egypt have export specialisation patterns which have great similarities with the

EU15. Among all countries in question, interestingly, Jordan's specialisation pattern is very close to the EU/15 and shows the greatest similarity with EU15.

Among the new members, Hungary, Czech Republic and Poland have a very similar export structure with the EU15, whereas Turkey and Bulgaria show a different picture to the others. In Turkey's case we can see that throughout years the similarity increased, but it is still below that of the other five countries.

6. Conclusion

This paper aims to analyse the foreign trade patterns and trade specialisations in some of the new EU member countries and MPCs during the years 1995-2005. Five different indices are used: Revealed comparative advantage, comparative export performance, trade overlap export similarity and conformity coefficients.

The results show that MPCs, with the exception of Israel, still have a long way to catch up with the EU/15. New members generally do not share features of developing countries as much as MPCs do. Generally spoken, in terms of labour-intensive and primary products, including agricultural products, MPCs have a comparative advantage whereas EU/15 countries have a disadvantage in these sectors. But most MPCs will compete with the new member countries such as Bulgaria and Rumania which are mainly specialised in the same sectors as the most of MPCs. But in the long-run it is expected that due to the process of export substitution the EU member countries will move over to the production of more sophisticated products and the gap in primary products, research oriented products and labour intensive sectors could be filled by the MPCs.

It is well known that FDI is one of the main driving forces behind the restructuring process and rapid economic growth in the some of the new EU member countries. Besides Israel, Turkey and partly Morocco which accounted for more than 80% of total FDI to the region, the MPCs are not able attract FDI to their countries because of political and economic instability and the lack of a stable and well-structured investment climate. On the other hand, none of the new member countries have reached the same level of trade structure and specialisation of EU15 yet. The Czech Republic and Hungary are two countries which have done better compared to others concerning trade patterns and, followed by Poland. and Turkey, seem to be in a better position than Romania and Bulgaria in many aspects – however it is still the least similar in terms of trade with EU. In labour-intensive and resource-intensive manufactures production Turkey is in a very strong position. But it should

try to move over differentiated products requiring specialised suppliers, scale-based and science-based manufactures. In these areas of production Czech Republic, Hungary and Poland have been performing very well. The results show obviously that CEECs have been benefiting from trade with EU countries. Another fact is that the EU is turning his face to the new members and this makes economic integration with the Mediterranean countries harder. Weakness in trade relations with the EU makes these countries more introverted in terms of trade specialisation as well as less successful in international competitiveness.

Policy Recommendations: We can draw the following conclusions from our empirical work:

- The enlargement of the EU to Eastern and South-eastern European countries has intensified the trade relations between old and new members. So the trade between EU/15 and the new CEECs has been increasing remarkably. The Central and Eastern European members of the EU Members (CEESs) and Germany seem to give first priority to improving and intensifying economic and political relations with the East and South-eastern Europe. Therefore, it could be predictable that the share of these countries in total foreign trade of the EU as a whole will increase in the coming years. If the EU seriously thinks to integrate the Mediterranean region into the EU Single Market in 2010 under the umbrella of Free Trade Zone, firstly it should open its market not only for manufacturing goods but also primary goods, including agricultural goods and services. It seems to be inevitable that the EU should not continue to protect its unproductive and very costly sectors from international competition.
- Besides Turkey and perhaps Israel, the rest of the non-member countries of the EU have no hope of being full members of the EU. Therefore, it is expected they will hesitate or reject introducing the domestic reform measures imposed by the EU. This vicious cycle may be partly broken by the EU through more generous financial assistance from the EU budget for MPCs. In other words, they should be persuaded by Brussels that joining the European Single Market would bring great economic benefits for the MPCs in the short and long term.
- Independent from full membership into the EU, the MPCs countries must restructure their economies and should take very fundamental measures in order to survive and to catch up with the globalisation process in the coming years. As a matter of this fact, the MPCs have to make their economies more liberal and to

open their markets to international competitiveness. Additionally, MPCs should pay more attention to structural reforms in the fields of economics, education, telecommunication and the transport sector. Another important point is: The EU has to prepare basic ground for the transformation process by financing serious projects mainly in the field of education in manufacturing and services in the MPCs.

- FDI are one of the determining factors of rapid and sustainable economic growth. It is known that the FDI has played a very important role in the transformation period of CEECs. It can be easily predicted that if the Free Trade Zone between the MPCs and the EU would be established as it is planned in 2010, the inflow of FDI to the region would increase. The basic assumption is: until then a well-functioning market economy must be created by giving more chance to market forces rather than state-led economic development.