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IMPACT OF THE MEDITERRANEAN ECONOMIC GROWTH ON THE EUROPEAN PORT AND TRANSPORT SYSTEM

ABSTRACT

The Mediterranean Countries (MC) are grouped as European Union Countries (EUC), Former Socialist Countries (FSC), Middle East Countries (MEC) and Maghreb Countries (MAC) and their economic and population prospects are analysed with respect to future demands on seaborne traffic, port capacity and hinterland relations in the 21st century.

KEY WORDS

Mediterranean trends in population, economy and maritime transport, port capacities and hinterland relations

1. BACKGROUND: GLOBALISATION, TRANSPORT, AND SPATIAL ECONOMIC DEVELOPMENT

1.1. Globalisation and accessibility

The last decade of the 20th century was marked by the full success of the spatial-economic pattern of globalisation, i.e. the international integration of all markets (goods and services, production factors, natural resources, capitals), by which production and consumption in different countries become more and more interdependent and exchanges in goods, services, capitals and technologies increase.

Globalisation is allowed by reasons related to innovation, stability, and competition, such as:
- technical and organisational improvements in (goods and passenger) transports;
- innovations in telecommunications;
- higher political stability and international co-operation;
- free trade tendencies of a growing number of governments;
- new strategies of firms and investors looking for new market areas for inputs and outputs.

Globalisation causes cuts in costs and risks, easier transfer of information and innovations, larger market areas with more severe competition, emphasised segmentation and specialisation, international division of labour, standardisation in production techniques and in consumption patterns.

As a result, global economy produces more outputs, better and at lower costs/prices, with two consequences:
- product and income increase for the economies taking part in it[2];
- exchanges, trade and transport increase at a higher rate than product and income.

Thus, not only improvements in transport represent cause for globalisation, but this in turn implies new location patterns for the economic activities and production, namely of goods. That is, a two-way relationship occurs between transportation and economic development, affecting not only the scale of growth but also its spatial pattern. Agreed that the inclusion of a region into global economic development is not only a matter of *transport* accessibility (which is necessary but not sufficient), but also of other key elements (no protectionism, politic stability, safety for investments, stability in exchange rates, possible inclusion into an area with fixed exchange rates, etc.) which determines what we might call "*commercial* accessibility".

1.2. Globalisation and the firms

In recent years both national fiscal policies (government expenditure aiming at a well-balanced spatial distribution of economic growth) and policies based on international aids proved to be not sustainable in the long run (because of growing deficits in domestic budget and, respectively, in foreign debt). Unlike these policies, globalisation appears as a firm-led process, where firms operate on worldwide market of inputs and outputs by choosing volumes, market places, locations, levels of outsourcing. This takes place in different ways:
- international trade (cross-industry, due to specialisation, and intra-industry, due to the economies of

variety, namely in monopolistic competition markets);
- foreign direct investments (FDI) by which firms create or buy overseas branches, because of (*i*) input scarcity in the country of origin, (*ii*) marketing strategies, (*iii*) products not transportable or subject to duties, (*iv*) lower costs of inputs (labour, space, fiscal system, environment regulations);
- networks of firms aiming at reducing costs for capitals and executives, and at better managing problems related to the local context, etc.; networking is attained through foreign partnerships and joint ventures, concessions, franchising, job orders, subcontracts, "Original Equipment Manufacturing", etc..

Deep consequences occur, both in functional and spatial industrial organisation:
- production cycles are split into a sequence of production and transport phases. Cuts in transport costs allow every production phase – every link of the chain – to optimise the location for that specific activity; as a consequence, jobs and income are generated in the new regions of settlement, international trade increases in quantity and changes in typology, the traditional centralised way of production is replaced by a world-wide production network;
- in the world-wide relocation process, which involves countries with a high degree of (transport and commercial) accessibility, division of tasks brings base-industries and less sustainable industries towards countries with less advanced social and environmental regulations (and, consequently, with lower costs for labour, space, natural resources, taxes), while, at least in this phase, it keeps in more advanced economies functions requiring a higher technological or entrepreneurial know-how.

This spatial re-organisation causes international trade to grow much faster than industrial production. Over the last 40 years – but this trend is emphasised over the last decade – world trade volume rose 5.5 times (at 6% annual average rate), while industrial production rose 14 times (4% per year on the average)[3]. All the mentioned forms of integration are growing: international trade, foreign direct investments, international supply, international patents, international mergers, buyouts, joint ventures. This also enhances flexibility of firms with respect to shifts in demand.

1.3. Global versus local economies

With globalisation, the growth of local economies depends on their capacity to sell their production on the international market and to draw foreign capital for investment (obviously, the real and the financial side of the same coin). Following and updating Ohlin's vision (see Ohlin, 1933), where the availability of inputs influenced specialisation and development of each economic region, nowadays – as most inputs are more mobile, but, at the same time, the importance of infrastructures, facilities and external economies has grown – the key factor is an "economic environment" allowing firms to compete on the world-wide market.

How can this key target be achieved?

Traditional location theory used to stress the importance of transport costs minimisation[4]. It is well known that nowadays, lower costs and times reduce the importance of transport input in total production costs. But, obviously, only in the sense that high geographic and transport accessibility, quite widespread all over the world, are no longer sufficient to ensure economic growth. But it still represents – and even more than in the past – the necessary requisite, together with other factors whose importance grew comparatively over time, such as costs of labour and of space, taxes, know-how, entrepreneurship, capacity of innovation, and costs of fulfilling environmental regulations.

Trends emerging in the new spatial organisation of production can be summarised as follows:
- on the demand side, there is a growing standardisation of consumption patterns;
- on the supply side, specialisation, international division of labour, physical division of production cycle, relocation and decentralisation, growth in trade, transports and logistics, are enhanced;
- horizontal specialisation for specific functions tend to connect regions and cities and give rise to world-wide networks (regions specialised in base-industries, in hi-tech industries, in agricultural and food-chain productions, world cities operating financial control on production cycles, etc.).

Consequences range from a more severe international competition to the exploitation of local inputs, facilitation of international trade (WTO, free trade areas, lower or no duties), policies for stability in exchange rates (fixed exchange rates, currency agreements enhancing "macro-regions" based on US dollar, Yen, Euro). In global economy three main regions emerge: America, gravitating mostly to USA through NAFTA and partly to Brazil through Mercosur; Europe/Africa, gravitating to EU (apart from countries still belonging to EFTA: Switzerland, Norway and Iceland); Asia/Oceania (initially gravitating to Japan, now also to "Asian Tigers" and the ASEAN area). Over the last decades economic power has been changing geographically. Since 1960 Europe/Africa and America have shifted from 40% to 30-35% of world GDP, Asia/Oceania from 15% to 30-35%. In the '60s and '70s the gap between America and Europe decreased, as well as in the '80s and '90s between

Europe and America on one side, and Asia on the other side. Also, the size of final markets is changing, since industrialised countries, while still growing, are presently overcome – both in growth rates and in demographic dynamics – by newly industrialised countries and developing countries (see § 2).

1.4. Regional development and transports: the Mediterranean Area

What are the consequences of globalisation in terms of policies for development of local economies? Within this context, which issues rank first in the agenda of countries, international organisations and policy makers aiming at thick, well-balanced and sustainable growth for the Mediterranean area?

As already said, there is little or no space left for traditional fiscal policies, as well as for policies based on national redistribution of income, or on international aids. There are no margins for additional willingness of rich countries/regions to finance the poor ones, and, more important, this would be ineffective in a system ruled by competition. On the contrary, policies for local development within a global economy should aim at:

1. enhancing transport and logistic accessibility, necessary (although not sufficient) requisite in order to attract the location of firms;
2. enhancing "commercial" accessibility (in the sense mentioned above);
3. facilitating the flow of capital and innovation;
4. exploiting specific location factors of the region, in order to make it competitive for one or more phases of production cycles.

Under the first point, which is considered in this article, rank a number of relevant long-term actions, concerning transport infrastructures and logistics, whose implementation deeply influences the effectiveness of strategies mentioned under other points. These actions concern:

- the supply of (port, rail, road, waterways, inland terminal) infrastructures, and a hub-and-spoke and multimodal re-organisation of transport networks (namely maritime) capable to bear flows having origin or destination in the area, as well as flows in transit (which are relevant share of the Mediterranean traffics);
- the location of logistic services, to be optimised with regard to (*i*) the geographical position in respect of the transport chain, (*ii*) the cost of inputs (which influences the efficiency), (*iii*) sustainability of traffic growth for the local economies (since the major employment impact of the transport chain is nowadays generated much more by the location of logistic facilities than by the mere transit or modal interchange).

These strategies are linked to some of the main characteristics of production in the era of globalisation:

- different phases of manufacturing processes are located in different areas in order to minimise costs (each phase is located where factors required are cheaper);
- developed countries relocate the entire manufacturing units in developing countries in order to reduce labour costs or to avoid protectionist import restrictions;
- industrialisation starts in a number of countries former exporters of raw materials (value added at the origin);
- developing regions intensify trade among one another, and not only towards the developed countries.

The consequences in terms of distribution and transport demand are that transport demand for raw materials is reduced both in volume and in average distance, while transport demand for final and intermediate products increases, both in volume and in distance. Thus, transport flows (namely maritime) change dramatically in quantities, typology, and geographical origins/destinations.

The Mediterranean and Black Sea area have relevant and specific characteristics which appear to be relevant for transport and logistics topics. The positive characteristics are:

- the co-presence in the area of countries in different stages of industrialisation and economic development: potential opportunity if this allows to enhance synergies;
- centrality with respect to a relevant share of international seaborne flows;
- centrality for international tourism (the industry presently with the highest growth rate of the whole world economy, and for which transport infrastructures and services are essential, due to the worldwide extension of the market);

The negative characteristics are:

- depression of former socialist countries and of Maghreb countries, whose economic crisis appears crucially influenced by lack in regulations, infrastructures, facilities, and by bureaucracy and corruption;
- growing demographic unbalances between the countries of the Northern and Southern edge;
- migration flows due to both demographic and economic unbalances (see § 2), and related social/political conflicts;
- breeding-grounds for international political conflicts and wars (former Yugoslavia, Algeria, Middle East, Libya, Kurdistan).

Assuming that these features might jeopardise sound, balanced and sustainable development for the Mediterranean area, yet the article will concentrate on transport and logistic infrastructures, trying to assess the relationship between the macroeconomics of the Mediterranean Countries (§2), the consequences on transport demand in the Mediterranean and Black Sea (§3), the suitability of European transport facilities in regard to the growing demand (§4-5). Policy items are addressed to in §6.

In the following paragraphs "Mediterranean Countries" will be used for all the countries whose coast is partly or totally along the Mediterranean or along the Black Sea or Azov Sea, with the exception of Monaco, Russia (since the Mediterranean coast is marginal with respect to the Russian economy) and Georgia (as there are almost no data available on international statistics); on the contrary, we will include countries very close to the Mediterranean coasts and whose economy and transport systems are strictly related to it: Portugal, Jordan, Slovenia, Macedonia. As a result, we use the term Mediterranean Countries (MC) to indicate the following list of countries: Portugal, Spain, France, Italy, Slovenia, Croatia, Yugoslavia, Albania, Bulgaria, Rumania, Ukraine, Turkey, Cyprus, Syria, Lebanon, Israel, Jordan, Egypt, Malta, Libya, Tunisia, Algeria, Morocco. In this list, Portugal, Spain, France, Italy and Greece are referred to as the *European Union Countries* (EUC), Slovenia, Croatia, Yugoslavia, Albania, Bulgaria, Rumania, Ukraine as *Former Socialist Countries* (FSC), Turkey, Cyprus, Syria, Lebanon, Israel, Jordan, Egypt, Malta as *Middle East Countries* (MEC), Libya, Tunisia, Algeria, Morocco as *Maghreb Countries* (MAC).

2. ECONOMIC TRENDS IN THE MEDITERRANEAN AREA

2.1 Demographic dynamics

From 1989 to 1998, the overall population of MC increased from 469 to 514 million, with a growth of 9.6% (see Table 1). Nevertheless, if we consider the demographic trend of each country, this balance is the result of two very different trends:

- dramatic growth (due, above all, to the increase in average length of human life) for all countries of Maghreb (MAC) and the Middle East (MEC), with overall percent growth for the decade ranging (with the exception of Cyprus, which has less than one million inhabitants), from +15.6% for Turkey to +40.0% for Jordan. The sum of MAC and MEC increased in the period from 190.0 to 233.9 million inhabitants, with a growth of 23.1%;
- substantially stable population for the EUC (countries presently belonging to the EU) and the FSC (former socialist countries). Overall percent variations for the same decade range from –8.2% of Bulgaria to +4.3% of France and Greece (excluding Albania, which has only 3.2 million inhabitants). The total population has remained constant for the whole decade, varying from 279.5 million in 1989 to a maximum of 281.1 in 1994 and then to 280.9 million in 1998, with a negligible growth (+0.5%) from 1989 to 1998. Actually, within this area we should point out that EUC are not loosing population, and globally grow moderately from 172.8 to 176.3 million, with a growth of +2.0%; while FSC decreased from 106.3 to 104.2 million, with a 2.0% fall, and their single balances are all negative except for Albania and (present) Yugoslavia. The survey of annual variations (Table 2) shows that negative balances affect only FSC with the exception of Portugal in 1990 and 1991 and of Italy in 1991.

It should be noted that (as it will be better explained afterwards) these data already incorporate relevant migration flows towards the richest countries (essentially, EUC) from the poorest ones, either in demographic growth (Maghreb) or in rise (Eastern Europe).

2.2 The growth in GDP

Table 3 shows available data on GDP variations, at constant prices, over the period 1968-1999. Any comment from the overview on the thirty-years period must be very careful, because of partial availability and different reliability of data. For this reason, we will limit ourselves to a few general considerations on the whole period, before focusing on the last decade.

2.2.1 GDPs in 1968-1999

Economic dynamics for MC allow outlining a meaningful division into the four areas we outlined in § 1.4:

- EUC – countries which are now part of the EU show for the entire period a moderate (given also the previous level of development of most of them) yet persistent economic growth, with just a few exception (essentially: crises of 1974-75 and of 1993, and a crisis for Iberian countries in the early '80s). The growth is consistent with that of other advanced economies, and for each country it shows an acceleration if/when it joins the European integration process. Compared to the European trends, France and Italy are pretty aligned. The growth of Greece (last to join the ECU/Euro monetary system) is slower, while Spain and Portugal did not follow the European growth rates in the '70s and '80s,

while in the '90s they sharply accelerated and counterbalanced the previous delay.

- FSC – for former socialist countries, available data are scarce (usually there are data only for the '90s). Statistics highlight the crash around 1990 and in the early '90s, due to the politic upheaval. After that, some countries recovered (usually, those with stable government and less linked to the USSR system, or geographically closer to EU, like Slovenia, and to a smaller extent Croatia). But the trend is swinging and negative for major countries of the area (like Ukraine, Rumania, Bulgaria, deeply linked to the USSR economic system; and Yugoslavia, still hampered by war, political instability, international isolation).
- MAC – countries of the Maghreb area, after the growth in the '70s, with relevant relocations of base industries from industrialised countries, namely European, the '80s and '90s were marked by fluctuations and deep crisis involving Libya and Algeria (post-oil crisis, international isolation, political, social and religious conflicts). A better trend was scored by Morocco and above all Tunisia, more linked to the growth in EUC (such as tourism industry) than to Maghreb economy.
- MEC – the Middle East showed strong growth, yet marked by fluctuations largely due to wars and political crises. Fluctuations were at their top in the '70s (Israel, Jordan, Cyprus), it decreased but was still strong in the '80s (Lebanon, Syria), and progressively decreased in the '90s, when the area was characterised by a growth steady and more than the average. A steady growth, with an acceleration in the '90s characterised Turkey and Egypt.

Table 1 - Demographic dynamics 1989-1998 (millions)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Albania	3.20	3.26	3.26	3.36	3.48	3.55	3.61	3.67	3.73	3.79
Algeria	24.33	25.02	25.64	26.27	26.89	27.50	28.06	28.57	29.05	29.80
Bulgaria	8.99	8.99	8.98	8.54	8.47	8.44	8.41	8.36	8.31	8.25
Croatia	4.77	4.78	4.79	4.47	4.64	4.65	4.67	4.49	4.50	4.57
Cyprus	0.67	0.68	0.69	0.71	0.72	0.73	0.73	0.74	0.74	0.75
Egypt	50.86	51.91	52.99	54.08	55.20	56.34	57.51	59.31	64.73	65.98
France	56.42	56.73	57.05	57.37	57.65	57.9	58.14	58.37	58.61	58.85
Greece	10.09	10.16	10.25	10.32	10.38	10.43	10.45	10.48	10.50	10.52
Israel	4.52	4.66	4.95	5.12	5.26	5.40	5.54	5.70	5.83	5.97
Italy	57.54	57.66	56.75	56.86	57.05	57.20	57.30	57.38	57.52	57.59
Jordan	4.50	4.62	4.80	5.02	5.26	5.51	5.73	5.94	6.13	6.30
Lebanon	2.54	2.56	2.61	2.70	2.81	2.92	3.01	3.08	3.14	3.19
Lybia	3.98	4.15	4.33	4.51	4.70	4.90	5.41	5.59	5.78	5.34
Malta	0.35	0.35	0.36	0.36	0.36	0.36	0.37	0.37	0.38	0.38
Monaco	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Morocco	23.70	24.18	24.65	25.12	25.58	25.93	26.39	26.85	27.31	27.78
Portugal	9.94	9.90	9.87	9.87	9.88	9.90	9.92	9.93	9.94	9.97
Romania	23.15	23.21	23.19	22.79	22.76	22.73	22.68	22.61	22.55	22.50
Slovenia	2.00	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.99	1.98
Spain	38.79	38.85	38.92	39.01	39.09	39.15	39.21	39.27	39.32	39.37
Syrian Ar. Rep.	11.72	12.12	12.53	12.96	13.39	13.84	14.15	14.62	15.10	15.60
Former Macedonia	2.02	2.03	2.04	2.06	2.12	2.14	1.96	1.98	1.99	2.00
Tunisia	7.97	8.15	8.32	8.48	8.66	8.81	8.96	9.09	9.21	9.33
Turkey	54.89	56.10	57.06	57.93	58.51	59.71	60.61	61.53	62.47	63.45
Ukraine	51.71	51.84	51.94	52.06	52.24	52.11	51.73	51.33	50.89	50.50
Yugoslavia	10.47	10.52	10.41	10.45	10.48	10.52	10.55	10.58	10.60	10.62

Source: IMF, 2000

Table 2 - Population dynamics: annual variations over the previous year

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Albania	1.9	0.0	3.1	3.6	2.0	1.7	1.7	1.6	1.6
Algeria	2.8	2.5	2.5	2.4	2.3	2.0	1.8	1.7	2.6
Bulgaria	0.0	-0.1	-4.9	-0.8	-0.4	-0.4	-0.6	-0.6	-0.7
Croatia	0.2	0.2	-6.7	3.8	0.2	0.4	-3.9	0.2	1.6
Cyprus	1.5	1.5	2.9	1.4	1.4	0.0	1.4	0.0	1.4
Egypt	2.1	2.1	2.1	2.1	2.1	2.1	3.1	9.1	1.9
France	0.5	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4
Greece	0.7	0.9	0.7	0.6	0.5	0.2	0.3	0.2	0.2
Israel	3.1	6.2	3.4	2.7	2.7	2.6	2.9	2.3	2.4
Italy	0.2	-1.6	0.2	0.3	0.3	0.2	0.1	0.2	0.1
Jordan	2.7	3.9	4.6	4.8	4.8	4.0	3.7	3.2	2.8
Lebanon	0.8	2.0	3.4	4.1	3.9	3.1	2.3	1.9	1.6
Lybia	4.3	4.3	4.2	4.2	4.3	10.4	3.3	3.4	-7.6
Malta	0.0	2.9	0.0	0.0	0.0	2.8	0.0	2.7	0.0
Monaco	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Morocco	2.0	1.9	1.9	1.8	1.4	1.8	1.7	1.7	1.7
Portugal	-0.4	-0.3	0.0	0.1	0.2	0.2	0.1	0.1	0.3
Romania	0.3	-0.1	-1.7	-0.1	-0.1	-0.2	-0.3	-0.3	-0.2
Slovenia	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	-0.5
Spain	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
Syrian Ar. Rep.	3.4	3.4	3.4	3.3	3.4	2.2	3.3	3.3	3.3
Former Macedonia	0.5	0.5	1.0	2.9	0.9	-8.4	1.0	0.5	0.5
Tunisia	2.3	2.1	1.9	2.1	1.7	1.7	1.5	1.3	1.3
Turkey	2.2	1.7	1.5	1.0	2.1	1.5	1.5	1.5	1.6
Ukraine	0.3	0.2	0.2	0.3	-0.2	-0.7	-0.8	-0.9	-0.8
Yugoslavia	0.5	-1.0	0.4	0.3	0.4	0.3	0.3	0.2	0.2

Source: IMF, 2000

2.2.2 GDPs in 1988-1998

If we turn to an in-depth analysis on the '90s, the comparison with world real GDP growth at constant prices (+41.5% in the period 1988-1998) shows that:

- GDP grows for EUC, but usually less than the world average (which is quite normal for the very advanced economies): +26.9% for France, +25.5% for Greece, +19.5% for Italy, +50.7% for Portugal, +34.2% for Spain. All annual variations are growing except for 1993 crisis (when only Portugal is on the rise) and for a slight drop of Greece in 1990;
- among FSC the most dynamic economies are the smallest ones and/or those most influenced by proximity of EU (such as Slovenia, Croatia), whose growth rates since 1993 have been sometimes higher than the world average. Over the period for which the data are available (1993-98), Slovenia's GDP grew by 26.8% and Croatia's by 19.7% (world GDP, in the same period, grew by 22.4%). Yet, they are likely to influence little the overall datum for the whole set of FSC (this datum is unfortunately not available in international statistics), since real GDP of major countries (Ukraine, Rumania, Bulgaria, and probably Yugoslavia, which count all more than 85% of population of the area) decreased for the whole period, by 63% for Ukraine (data available from 1991), by 29.1% for Rumania (1988-1998), by 28.6% for Bulgaria (data from 1991);
- in the Maghreb area, Algeria and Libya – which showed major growth in the '70s – are in deep crisis, due to the end of oil boom and above all to international isolation following social, religious and political troubles; Morocco shows a fluctuating trend,

Table 3 - GDP annual variations

	1968	1970	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
World	4.5	3.4	1.3	2.6	1.6	0.4	2.6	4.8	4.0	3.4	3.9	4.5	3.3	2.9	2.3	3.2	2.9	4.3	3.5	3.9			
Albania															-28.0	-7.2	9.6	9.4	8.9	9.1	-7.0	8.0	8.0
Algeria	8.2	7.3	10.3	16.4	1.8	-5.3									-1.2	1.6	-2.2	-1.1	3.9	3.8	1.1	5.1	3.4
Bulgaria															-11.7	-7.3	-1.5	1.7	2.2	-10.9	-7.0	3.5	2.5
Croatia																	-8.0	5.9	6.8	6.0	6.5	2.3	-2.0
Cyprus	5.3	3.0	-19.0	5.9	3.1	6.3	5.3	8.8	4.7	3.6	7.1	8.3	8.1	7.4	0.7	9.4	0.7	5.8	5.5	1.9	2.5	5.0	4.5
Egypt							6.4	6.0	12.1	9.1	6.4	5.4	5.0	5.7	1.1	4.4	2.9	3.2	4.3	5.1	5.0	5.3	6.0
France	4.3	5.7	-0.3	1.6	1.2	2.5	0.7	1.3	1.9	2.5	2.3	4.5	4.3	2.5	0.8	1.2	-1.3	2.8	2.1	1.6	2.3	3.2	
Greece	6.6	7.9	6.1	1.7	0.1	0.4	0.4	2.7	3.1	1.6	-0.5	4.5	3.5	-0.6	3.5	0.4	-0.9	1.5	2.1	2.4	3.2	3.7	
Israel		33.3	16.7	3.2	4.5	1.3	2.5	2.1	4.0	4.1	6.1	3.1	1.3	5.8	6.2	6.6	3.2	6.8	7.1	4.5	1.9	2.0	
Italy	6.5	5.3	-2.1	3.5	0.5	0.5	1.2	2.6	2.8	2.8	3.1	3.9	2.9	2.2	1.1	0.6	-1.2	2.2	2.9	0.7	1.5	1.3	
Jordan		-10.2	12.6	17.6	9.8	5.6	2.5	1.4	4.1	7.0	2.9	-1.9	-13.4	1.0	1.8	16.1	5.6	8.1	6.9	5.2	1.3	2.2	2.0
Lebanon															38.2	4.5	7.0	8.0	6.5	4.0	4.0	3.0	0.0
Libya	33.5	3.9	4.0	0.6											12.0	-4.2	0.1	-0.9	-1.1	1.2	1.3	-3.0	2.0
Malta	10.1	12.6	19.6	7.0	3.3	2.3	-0.6	0.9	2.6	3.9	4.1	8.4	8.2	6.3	6.3	4.7	4.5	3.4	7.3	3.2	3.7	3.1	3.5
Morocco	12.4	5.0	4.1	3.4	-2.8	9.6	-0.6	4.3	6.3	8.4	-2.6	10.4	2.5	3.9	6.9	-4.0	-1.0	10.4	-6.6	12.1	-2.0	6.3	0.2
Portugal	8.8	9.3	-4.3	4.8	1.3	2.1	-0.2	-1.8	3.0	4.1	5.1	4.0	4.9	4.1	2.1	4.2	7.8	1.9	2.0	3.0	3.8	3.9	
Romania					0.1	4.0	6.1	5.9	-0.1	2.3	0.8	-0.5	-5.8	-7.3	-12.9	-8.7	1.5	3.9	7.1	3.9	-6.9	-5.4	-3.9
Slovenia																	2.8	5.3	4.1	3.5	4.6	3.9	3.8
Spain	6.8	4.1	0.5	1.3	-0.2	1.6	2.2	1.5	2.6	3.2	5.6	5.1	4.8	3.7	2.3	0.7	-1.2	2.1	2.8	2.2	3.6	4.0	
Syrian Ar. Rep.	4.4	-5.9	21.1	12.0	9.5	2.1	1.4	-4.1	6.1	-4.9	1.9	13.3	-9.0	7.6	7.1	10.6	5.0	7.7	5.8	1.8	1.2	5.4	0.1
Tunisia		7.5	8.1	9.4	6.5	-0.5	4.7	5.7	5.7	-1.4	6.7	0.1	2.6	7.1	3.9	7.8	2.2	3.3	2.4	7.0	5.4	5.0	6.5
Turkey												2.3	0.3	9.2	1.1	5.0	7.7	-4.7	8.1	6.9	7.6	3.1	-4.3
Ukraine															-10.6	-17.0	-14.2	-22.9	-12.2	-10.0	-3.0	-1.7	-0.4
Yugoslavia															-17.0	-34.0							
Macedonia, former Yugoslav Rep.																	-7.5	-1.8	-1.1	1.2	1.4	2.9	2.5

Source: International Monetary Fund, 2000

while Tunisia – more linked to the western economies also due to the importance of tourism in national economy – grows steadily and, mostly, faster than the world GDP. Compared to the growth of GDP in the world by 41.5% in 1988-1998, Tunisia's GDP grew by 57.5%, Morocco's by 43.5%, while Algeria's only by 11.4% (from 1991, with world GDP growing in the same period by +27.6%), and Libya's by 4.8% (same period);
- in the Middle East the decade between 1988-1998 shows, even with some fluctuations, GDP growth higher than the world average for all the countries, both for the overall variation and for most annual rates. Compared to the world growth in the decade by 41.5%, Cyprus grew by 71.1%, Syria by 70.7%, Israel by 60.1%, Turkey by 56.7%, Egypt by 59.0%, Jordan by 34.9% (however, it would be by 58.4% if we excluded the first two years of the period), Lebanon by 97.8% in the period 1991-1998 (that is, following the war).

Table 4 - Private consumption 1980-1998
(US$ millions)

	Private consumption	
	1980	1998
Albania		2940
Algeria	18293	27727
Bulgaria	11089	8938
Croatia		12973
Egypt	15848	63575
France	391263	835735
Greece	32706	88059
Israel	11493	61627
Italy	273819	707975
Jordan	3123	5139
Lebanon		16930
Libya	7171	
Morocco	12937	23882
Portugal	19166	65324
Romania		29040
Slovenia		10874
Spain	141274	329729
Syrian Ar. Rep.	8690	8856
Tunisia	5380	12511
Turkey	42067	136027
Ukraine		24526
Macedonia, former Yugoslav. Rep.		1879
Georgia		4986

Source: The World Bank, 2000

2.3 GDP per capita

The GDP growth in the decade from 1988-1998 can be compared to the population growth, in order to point out in which countries GDP grew proportionally faster than population (growth in GDP per capita). It is worth noticing that:
- for EUC, GDP always grows faster than population, except for the 1993 crisis (which spared Portugal);
- for MEC, just a widespread fall occurred in 1991, and some isolated falls (not affecting Turkey) took place in the years 1996-1998;
- for MAC, contrast emerges between Tunisia's GDP per capita, almost constantly rising, Morocco's fluctuations and regular fals for Libya and Algeria;
- for FSC drops in GDP per capita are prevailing, namely for major countries, while positive variations have prevailed for Slovenia and, in recent years, Croatia.

These elements, as those previously highlighted, outline a scenery where two strong and/or rapidly growing areas emerge (EU and the Middle East), against two areas – Maghreb, and the former socialist countries in the Balkans and the Black Sea regions – where, with occasional exceptions involving small countries, the economy is still dropping.

The comparison between economic and demographic dynamics can be extended to (total and individual) private consumption of families (Table 4). Variation over the period 1980-1998 seems to confirm this scenario (even if available data are largely incomplete and should be read with some caution).

2.4 International Trade

What are the consequences of these trends on MC, from the point of view of their insertion in international trade and in the world economy? Tables 5 and 6 and Figures 1-8 report exports and imports in value, at constant prices, for the period from 1968-1997.

2.4.1 Exports

The value of exports for MC, at constant prices, increased by 20 in the period from 1968-1997, and doubled in the last decade (after it increased by 5 in the first decade and by 2.5 in the second one). This result is almost entirely due to the export of EUC (in 1997 their share was 85% of the total).

Among EUC, France and Italy have grown steadily except for short crises in the early '80s and '90s. In 1997 exports of the two countries reach 500 billion US $, about 2/3 of total exports of MC (it must be remem-

Table 5 - Exports in value (billions US$), at constant prices, for the period from 1968 to 1997

	1968	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Albania								0,076	0,125	0,138	0,202	0,207	
Algeria	0,83	1,009	4,7	13,871	12,841	12,93	12,57	11,13	10,23	8,88	10,24	12,62	
Bulgaria	1,615	2,004			13,339	4,793	3,225	3,922	3,728	3,994	5,354	4,833	4,898
Croatia							3,292	4,598	3,904	4,26	4,633	4,512	4,341
Cyprus	0,087	0,107	0,15	0,532	0,476	0,957	0,964	0,987	0,867	0,967	1,229	1,395	1,101
Egypt	0,622	0,762	1,402	3,046	1,838	2,585	3,659	3,051	2,244	3,463	3,435	3,535	
France	12,723	17,879	53,086	116,03	101,674	216,588	217,1	235,871	209,349	235,905	286,738	288,468	289,842
Greece	0,468	0,643	2,294	5,153	4,539	8,105	8,666	9,509	8,435	9,384	10,961	9,648	8,626
Israel	0,639	0,779	1,941	5,538	6,26	11,576	11,921	10,019	14,826	16,884	19,046	20,61	22,503
Italy	10,186	13,205	34,988	78,104	76,717	170,304	169,465	178,155	169,153	191,421	233,998	252,001	238,24
Jordan	0,04	0,034	0,153	0,574	0,789	1,064	1,13	1,215	1,232	1,424	1,769	1,817	1,845
Lebanon	0,147	0,19	1,233	0,955	0,53	0,494	0,539	0,56	0,452	0,544	0,825	1,017	
Libya	1,866	2,357	6,834	21,91	10,929	13,225	11,235						
Malta	0,034	0,039	0,164	0,483	0,4	1,133	1,234	1,54	1,355	1,518	1,861	1,736	1,642
Morocco	0,45	0,488	1,543	2,493	2,165	4,265	4,313	3,984	3,991	4,013	4,642	6,881	7,03
Portugal	0,734	0,946	1,939	4,64	5,685	16,417	16,28	18,35	15,249	17,899	22,261	23,824	
Romania	1,469	1,851	5,341	11,209	12,167	5,775	4,266	4,363	4,892	6,151	7,91	8,085	8,431
Slovenia								6,681	6,083	6,828	8,316	8,312	8,372
Spain	1,589	2,388	7,69	20,72	24,247	55,642	60,177	64,334	59,555	73,299	91,716	101,994	104,363
Syrian Ar. Rep.	0,168	0,203	0,93	2,108	1,637	4,212	3,43	3,093	3,146	3,047	3,563	3,999	3,916
Tunisia	0,158	0,182	0,856	2,198	1,738	3,526	3,699	4,019	3,802	4,657	5,475	5,517	5,559
Turkey	0,496	0,588	1,401	2,91	7,598	12,959	13,594	14,715	15,345	18,106	21,637	23,224	26,245
Ukraine								8,045	7,817	10,305	13,317	14,441	
Yugoslavia	1,264	1,679	4,072	8,978	10,7	14,308	13,953						
Macedonia. former Yugoslav. Rep.									1,055	1,086	1,204		

Source: IMF, 2000

Table 6 - Imports in value (billion US $) at constant prices for the period from 1968 to 1997

	1968	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Albania								0,175	0,557	0,6	0,714	0,842	
Algeria	0,815	1,257	5,498	10,559	9,841	9,715	7,538	8,573	7,77	9,37	10,25	8,84	
Bulgaria	1,782	1,831	5,949		13,657		2,537	4,11	4,385	3,869	5,242	4,648	4,504
Croatia						5,187	3,795	4,501	4,666	5,231	7,582	7,788	9,313
Cyprus	0,17	0,235	0,308	1,202	1,247	2,568	2,621	3,313	2,59	3,018	3,694	3,983	3,698
Egypt	0,68	0,786	3,751	4,86	5,495	9,216	7,862	8,245	8,184	10,185	11,739	13,019	
France	14,009	19,119	54,222	134,866	108,251	234,436	231,784	239,638	201,838	230,188	275,275	277,673	269,216
Greece	1,393	1,958	5,357	10,548	10,134	19,777	21,58	23,22	22,011	21,466			
Israel	1,307	2,079	5,997	9,784	9,875	16,794	18,658	15,535	22,624	25,237	29,579	32,62	30,781
Italy	10,285	14,974	38,526	100,741	87,692	181,968	182,679	188,451	148,273	169,172	206,04	208,114	208,272
Jordan	0,159	0,184	0,732	2,402	2,733	2,6	2,508	3,255	3,539	3,382	3,698	4,428	4,102
Lebanon	0,596	0,683	2,048	3,65	2,203	2,525	3,743	4,202	4,821	5,933	7,278	7,582	
Libya	0,645	0,555	3,542	6,777	4,101	5,336	5,361						
Malta	0,123	0,161	0,375	0,938	0,759	1,964	2,13	2,331	2,174	2,448	2,89	2,801	2,556
Morocco	0,552	0,686	2,567	4,164	3,849	6,8	6,873	7,348	6,76	7,188	8,563	9,704	9,525
Portugal	1,043	1,556	3,839	9,309	7,652	25,263	26,113	29,581	24,337	26,938	32,339	34,104	
Romania	1,738	2,117	5,769	13,843	11,267	9,843	5,793	6,26	6,522	7,109	10,278	11,435	11,28
Slovenia								6,142	6,499	7,304	9,492	9,423	9,357
Spain	3,505	4,747	16,265	34,078	29,963	87,715	93,306	99,758	78,626	92,509	115,019	121,782	122,717
Syrian Ar. Rep.	0,313	0,36	1,685	4,124	3,967	2,4	2,768	3,49	4,14	5,467	4,709	5,38	
Tunisia	0,218	0,306	1,424	3,54	2,757	5,542	5,189	6,431	6,214	6,581	7,903	7,745	7,914
Turkey	0,764	0,948	4,739	7,91	11,343	22,302	21,047	22,871	29,428	23,27	35,709	43,627	48,585
Ukraine								7,099	9,533	10,748	16,052	18,639	
Yugoslavia	1,797	2,874	7,697	15,076	12,207	18,871	14,737						
Macedonia. Former Yugoslav. Rep.									1,199	1,484	1,719		

Source: IMF, 2000

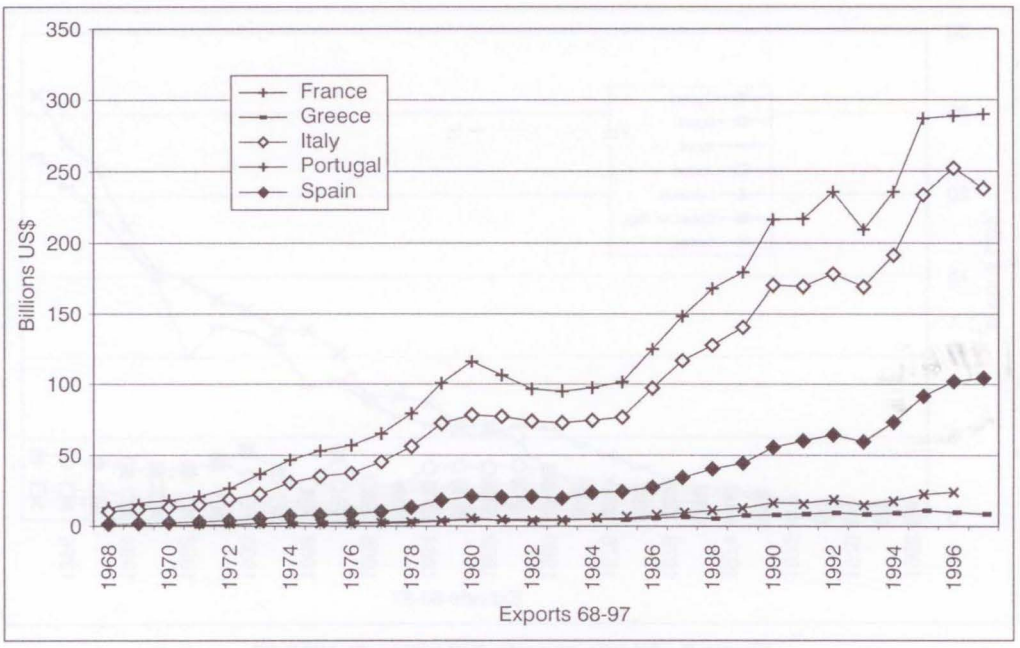

Figure 1 - EU exports (US billion $) 1968-97

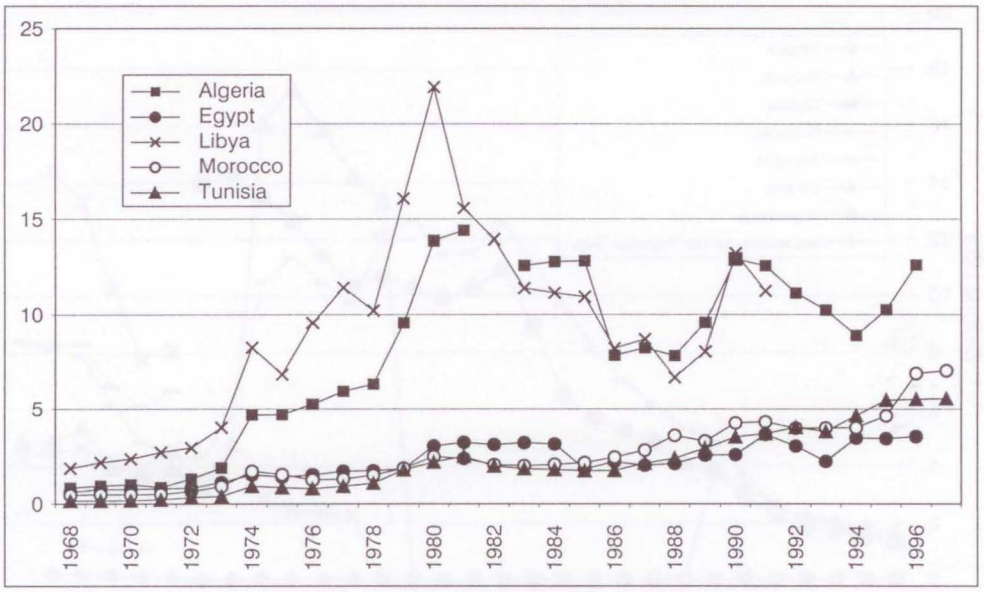

Figure 2 - Maghreb exports (US billion $) 1968-97

bered that France is only partly an MC, and seaborne trade is shared among the Mediterranean, Northern and Atlantic ports). The share does not change substantially for France (36% in 1968 and in 1997) and for Italy (from 29% to 32%), while Spain grew from 4% in 1968 to 13% in 1997 (the 3rd exporter country in the Mediterranean basin). The three countries total 80% of MC's export. The share of EUC rose in the period from 72.3 to 84.7%.

For FSC, the value of exports is quite small. They grew until the end of the '80s, then collapsed in the early '90s and afterwards recovered, namely for Ukraine, Slovenia, Rumania, but still in small absolute figures (15.8 and 8 billion US $ respectively). The share of FSC in the total MC's exports fell from 12.2% in 1968 to 5.0% in 1997.

Among MEC, a protracted growth is shown by Israel and more recently Turkey, which export nowadays about 25 billion US$ each. Exports of other countries are hardly relevant. Exports for the whole area slightly grew in the period (from 6.1% to 6.9%), probably as a consequence of drops in other areas.

Among MAC, exports are quantitatively dominated (about 70% of the value) by Libya and Algeria, growing during the '70s, and then dropping during the '80s and fluctuating in the '90s. Export grew for Morocco and Tunisia (namely for tourism bill), but they still represent quite a small share in the total figure.

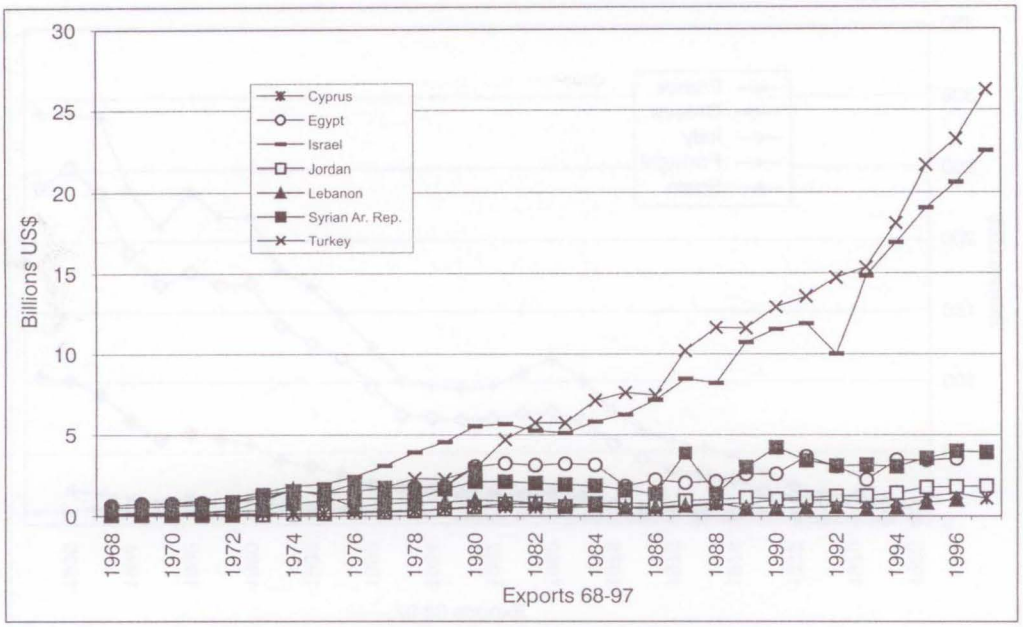

Figure 3 - Middle exports (US billion $) 1968-97

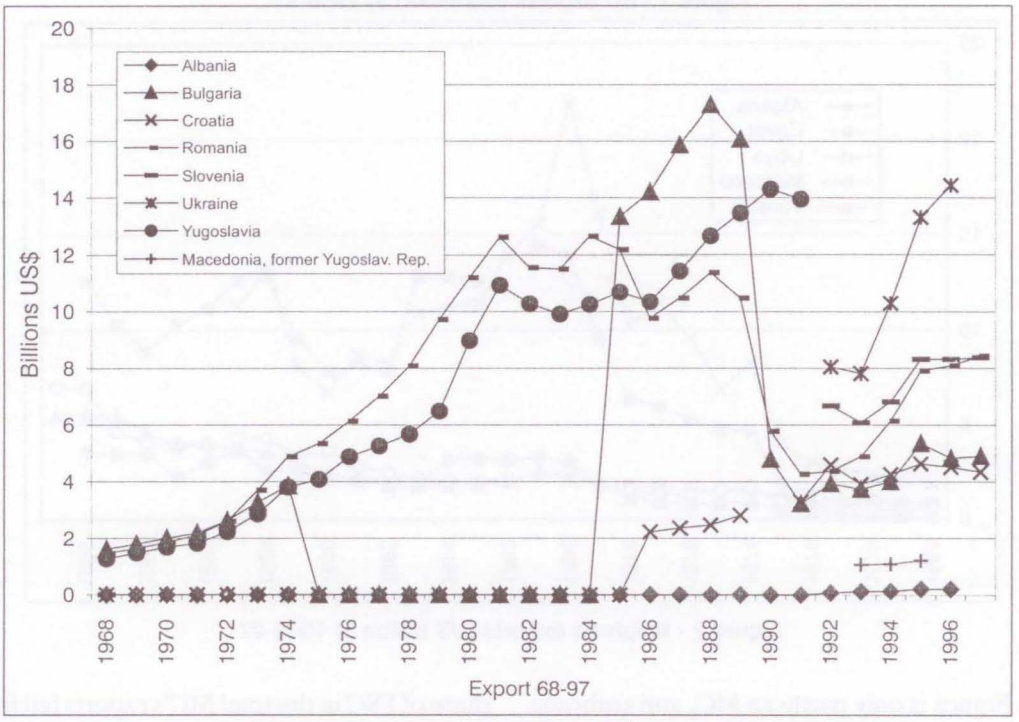

Figure 4 – Former Socialist Countries exports (US billion $) 1968-97

The share of exports for MAC dropped in the period from 9.2% to 3.2% (the datum is affected by missing data on Libya: nevertheless, even if we refer to the 1991 data we can conclude that this share should not exceed 5.2%).

2.4.2 Imports

The value of imports for MC, at constant prices, increased 19 times over the period from 1968-1997, and nearly doubled in the last decade (after having increased by little less than 5 times in the first decade and twice in the second one). It is largely determined by imports of EUC (representing in 1997, 77% of the total amount). Imports grew slightly less than exports in the same period.

Among the EUC (whose imports grew much less than exports), France and Italy grew steadily with two circumscribed crises from 1980 to 1983-4 and in 1993. Imports of these two countries reach nearly 480 billion US $, that is nearly 2/3 of total MC's imports (keeping in mind, as said before, that France is not only an MC).

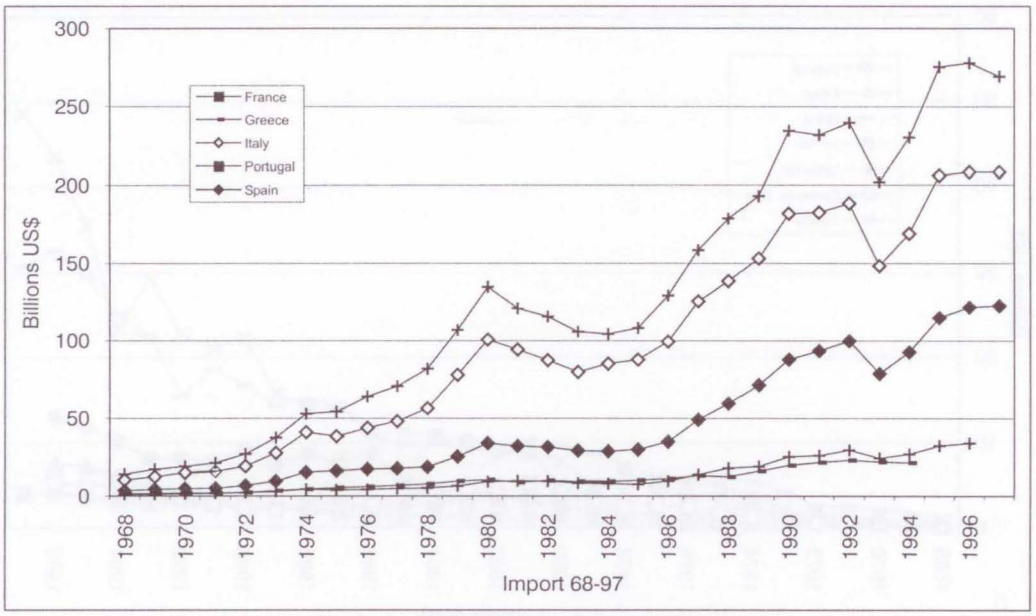

Figure 5 – EU imports (US billion $) 1968-97

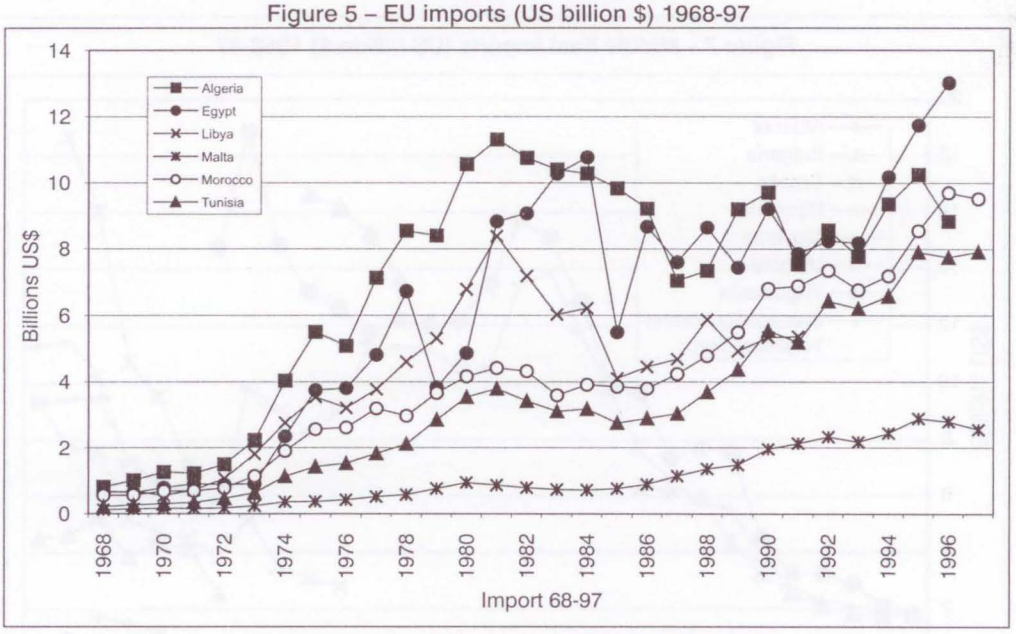

Figure 6 – Maghreb imports (US billion $) 1968-97

The share in total imports of MC did not change for France (33% both in 1968 and in 1997) and for Italy (25%), while Spain grew from 8.4% in 1968 to 14.6%. Import of these three countries accounts for over 70% of total MC's imports. Total share of EUC rose in the period from 72.2% to 76.9%.

Imports of FSC, quite modest regarding the absolute figure, grew until 1981-1982, then were falling for the whole decade, eventually culminating in the collapse of the economic and politic system based on the USSR. From 1993 imports started to grow again, namely in Ukraine, Slovenia, Rumania, Croatia. Yet they have remained at low levels (19, 10, 12, 8 billion US $ respectively). Their share in the total MC fell from 12.7% in 1968 to 6.3 % in 1997. Moreover exports exceeded imports, thus the gap between export and import increased.

Among MEC, Israel and Turkey show relevant import growth (namely Turkey in the second half of the '90s). Imports for the other countries fluctuate, and are almost irrelevant in absolute terms. The share of MEC on total MC's import grew from 7.8% in 1968 to 11.6%, largely determined by Israel and Turkey.

For MAC, imports have a fluctuating but strongly growing trend, namely for Morocco and Tunisia. The 80s and the '90s witness a drop in imports for Libya and Algeria. The share of the area in total MC's imports fell in the thirty years from 5.2% to 3.2%.

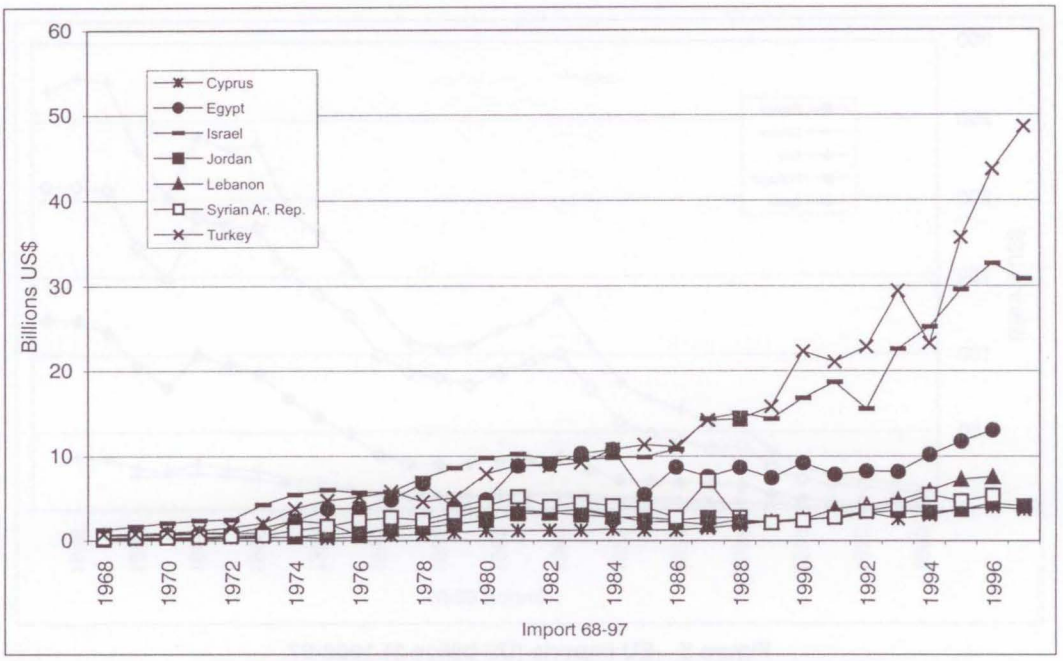

Figure 7 – Middle East imports (US billion $) 1968-97

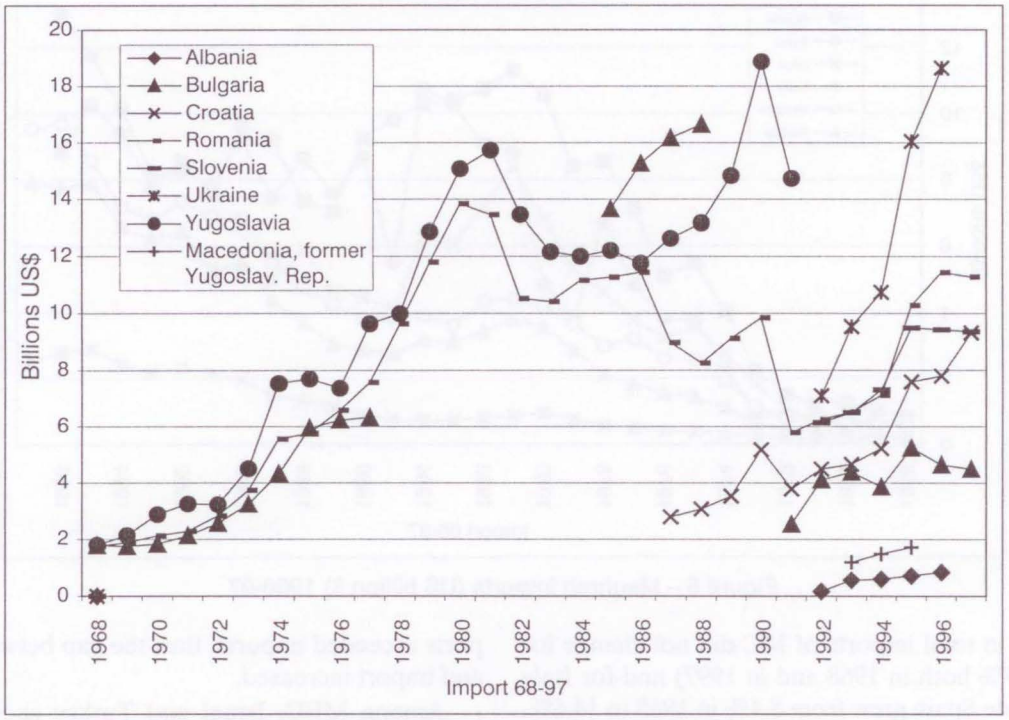

Figure 8 - Former Socialist Countries imports (US billion $) 1968-97

2.4.3 Comparing Import and Export trends

If we compare export and import trends for each group of countries over the decade from 1987 to 1997 (Figure 9), we may note that international opening increased more for advanced economies than for the other ones[5], higher absolute growth is observed for EUC, followed by MEC, while the growth of the two other groups was much slower, and even stopped with a drop in export value (and for FSC also of import value) in the first half of the decade.

Besides, for the first two groups the variation of the ratio of export to import (that is, the slope of the straight line connecting the points of the graph with the origin of axes) indicates that export grew proportionally more than imports, while the two remaining groups show the opposite trend (and in the first half of the decade, even an absolute reduction in export).

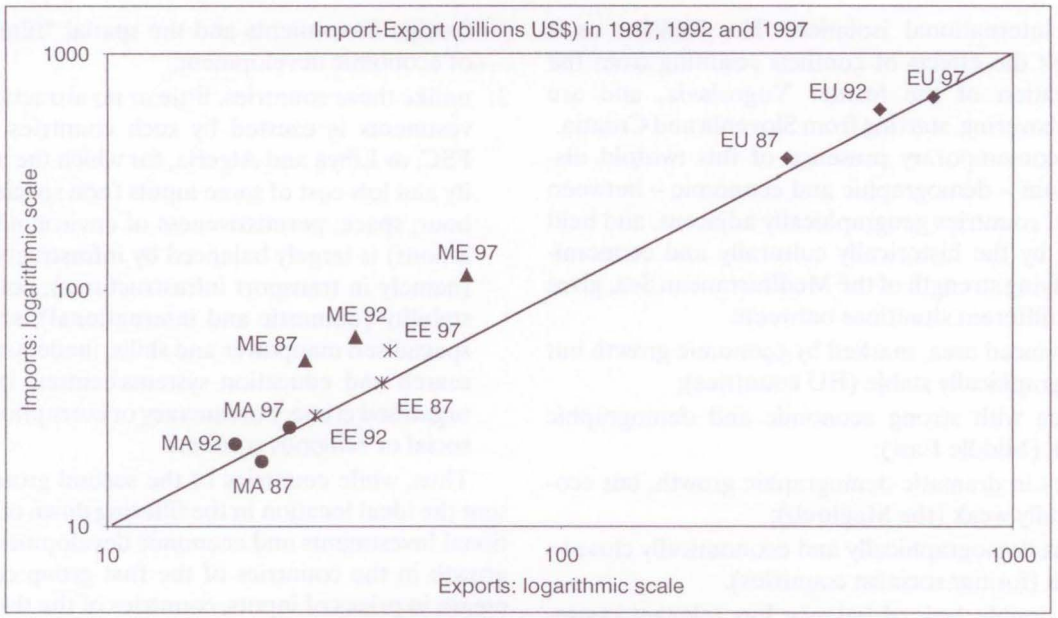

Figure 9 – Import-Export in 1987, 1992 and 1997

Actually, this does not necessarily imply a rise in exports absolutely bigger than the rise in imports. For absolute variations, single data show that countries with exports exceeding imports are all EUC (Italy, France, Greece, Spain, Portugal), plus Morocco, Tunisia, Malta (in Jordan growths in exports and in imports are substantially equivalent); while all those for which imports exceed exports belong to the MEC (Turkey, Syria, Israel, Lebanon, Egypt, Cyprus).

2.4.4 Comparing MC with the world trade

If we compare import-export data with the world growth of international trade (whose annual rate is 6.6% over the period 1990-1997), for the '90s, we observe that:

- international trade growth rate for the whole Mediterranean area is remarkably lower than the world growth rate;
- countries with a foreign trade (exports and imports) growth rate bigger than the world rate belong all to EUC (Spain) or to MEC (Israel, Jordan, Lebanon, Cyprus, Turkey);
- for Italy, Malta, Morocco and Tunisia export growth rates exceed world trade growth rate.

2.5 Differences as threat?

We are now able to outline the scenario of an economic region – the Mediterranean and the Black Sea basin – characterised by strong contrasts and lacks of balance.

First, a geographic juxtaposition emerges between the areas marked by very different demographic trends. The "Northern Rim" of the Mediterranean Sea (EUC and FSC) is in a substantially stable situation, while the "Southern Rim" (Maghreb and the Middle East, including Turkey) show very fast growth.

Second, the Mediterranean area is also the scene for geographic juxtaposition between areas with very different economic trends. EUC are among the most advanced economies in the world, early industrialised and presently launched, even if in delay with respect to the USA, on their way to post-industrial development and "new" economy. MEC are only partly and more recently industrialised, with rather different situations between advanced economies (such as Israel) and areas of relative economic backwardness (Syria), yet in the middle of rapid economic and commercial growth. Maghreb, despite the former prospect, 30-40 years ago, of quick and steady industrialisation and economic growth, has been and still is being hampered, namely the two bigger countries (Libya and Algeria), due to political, social, and religious troubles, and consequent international isolation. Morocco and Tunisia tend to abandon this scenery and link more tightly to international (namely European) economic growth, but still are jeopardised by the general backwardness of the whole area and by difficult economic and commercial relationships. Eventually, former socialist economies in the Balkan and the Black Sea area feel the effects of the crash of politic, economic and social system hinged on the USSR, and having major troubles in the transition toward market economy. Troubles affect namely major countries, which were more linked to the former Soviet Union (Rumania, Bulgaria) or were even part of it (Ukraine, Georgia), as well as the present Yugoslavia, because of politic conflicts (foreseeable also in the future, due to the likely conflict between Serbia and Montenegro), of wars and

straight international isolation. The Balkans as a whole felt the effects of conflicts resulting from the disintegration of the former Yugoslavia, and are slowly recovering, starting from Slovenia and Croatia.

The contemporary presence of this twofold disequilibrium – demographic and economic – between groups of countries geographically adjacent, and held together by the historically culturally and economically unifying strength of the Mediterranean Sea, gives place to different situations between:

- an advanced area, marked by economic growth but demographically stable (EU countries);
- an area with strong economic and demographic growth (Middle East);
- an area in dramatic demographic growth, but economically weak (the Maghreb);
- an area demographically and economically close to a crash (former socialist countries).

This double lack of balance has relevant consequences upon economic and social dynamics of the whole area.

One relevant consequence is obviously the volume of migrations, more and more relevant in the Mediterranean theatre, above all from Maghreb and former socialist countries, and above all towards EU countries. This phenomenon is caused by the co-presence of both (demographic and economic) gaps, and not only by the first. And it is enhanced, but not simply caused, by conflicts taking place in single regions (e.g. Kurdistan).

Besides, there is a correlation between the increase in GDP and the increase in export, as well as between demographic growth (and/or GDP drop) and rise in import; with evident consequences on transport system and its performance.

But above all, the double gap highlighted by statistics draws a scenario that could be seen as a "three-speed" one, whose consequence might well be to protract or even enhance gaps in wealth and in standards of living, instead of reducing them in the long run. As a matter of fact:

1. the most advanced economies (EUC and at least some MEC) can be in such conditions (as far as infrastructure, know-how, investments, etc., are concerned) to be able to hook up to – even with some delay – high levels of growth connected to new economy and globalisation;
2. against possible scarcity or high cost, in these countries, of some key inputs (labour, namely specialised, space, cost of fulfilling environment and social regulations, infrastructure congestion, etc.), several MEC, and probably some small and "anomalous" countries in other areas (such as Slovenia, Tunisia) can represent an ideal "complementary region" for the availability and cost of the above mentioned inputs, and thus they can attract foreign investments and the spatial "filter down" of economic development;
3. unlike these countries, little or no attraction on investments is exerted by such countries as most FSC, or Libya and Algeria, for which the availability and low cost of some inputs (non specialised labour, space, permissiveness of environment regulations) is largely balanced by infrastructure lacks (namely in transport infrastructures), political instability (domestic and international), scarcity of specialised manpower and skills, inadequacy of research and education systems/centres, impact of organised crime, bureaucracy or corruption, and of social or religious conflicts.

Thus, while countries of the second group represent the ideal location in the filtering down of international investments and economic development, as the growth in the countries of the first group causes increase in prices of inputs, countries of the third group can just become "supply areas" for importing some of these inputs (like non-specialised manpower) or, at the most, possible locations for mature, highly standardised economic activities, with low profits and value added, often environment consuming, and totally managed from abroad.

The scenario of a "three-speed" Mediterranean economy would probably imply that the growth induced by most advanced economies, instead of spreading over the whole area, would raise only some countries, thus increasing the economic and social gap between the first two groups and the third one.

It is then clear that problems of transport systems, and namely of ports and other infrastructures, in the Mediterranean Area, are not just a sectional topic. Within a context including infrastructure policies for attraction of investments and location of production activities, this is not only monitoring of the adequacy of infrastructure capacity with respect to forecasts in transport demand, but mainly the key issue with respect to development goals of less advanced Mediterranean Countries.

3. EXPECTED GROWTH IN THE EARLY 2000s AND CONSEQUENCES ON INTRA-MEDITERRANEAN COMMERCE

3.1 Forecasts of GDP

IMF macroeconomic forecasts refer to wide regions, except for advanced economies which are provided individually. The last *Economic Outlook* by IMF (year 2000) reports forecasts until 2005. For the purposes of this paper, data on the real GDP growth rates, in the world trade in volume and on traffic flows

in import and export are reported. Besides, it must be noted that IMF "regions" do not coincide with the four aggregations we referred to in the previous paragraphs and that were useful for our survey. IMF regions are, namely, bigger: The Middle East includes also the countries of Arabian peninsula, while the group of the "economies in transition" includes, in addition to those we have considered so far, also the other former USSR countries. The comparison is even harder for Maghreb, since IFM reports only aggregate data for the entire group of African developing countries. These difficulties in data collection suggest the usage of the few available data with great caution.

Notwithstanding, the analysis of data allows outlining some important trends:

- EU advanced economies should go on growing at an increasing rate of real GDP (at an annual average of 3%), due to: (*i*) good performances of economic fundamentals (employment rate, public deficit, inflation rate, interest rate); (*ii*) expansion of economic cycle which in some countries (such as Italy) appear to have just started; (*iii*) to the expected recovery of Euro against US dollar and yen over the next years. Yet, the growth rates should be lower than the world average (which is forecast to be 4.2% per year), as it was in the '90s, for the reasons outlined in the previous paragraph.
- The real GDP for the Middle East area is expected to grow at rates slightly higher than the world average (4.4% per year), due to: (*i*) tightening link with the EU (namely for Turkey and Cyprus); (*ii*) further liberalisation of commerce; (*iii*) enhancement of filtering down in firms' location – mentioned in § 2; (*iv*) the consequent growth in foreign direct investments (FDI), which will largely influence the significant increase in overall investments expected for the region (+23.6% per year in 2002-2005). GDP growth will be accompanied by a growth in import/export flows, where export is expected to maintain variation rates of the last decade of 20th century, while import is expected to grow more than proportionally.
- For the Maghreb area, as already said, forecasts are much more difficult. The relevant potential (partly due, namely for Libya and Algeria, to oil prices increase) allows opportunities to make up for the gap from the other areas, yet religious and politic troubles may jeopardise any expectations.
- Good performances are expected from economies in transition, essentially due to the fact that during the '90s the crisis due to the collapse of the USSR system and due to the number of national and international conflicts caused the crash of all local economies. Obviously, any recovery is exaggerated by the fact that it is expressed, as in international economic statistics, in terms of percent growth with respect to the previous period. This point must be made clear in order to understand the expected growth rates in GDP which are similar to world average, and the apparently renewed control (even if at 10% or so) on increase in consumption prices. The recovery in production will cause in turn a recovery in import/export flows, which are expected to grow by 6.3% and 5.8% respectively per year (which means, anyway, further increase in trade balance deficit). These economies are expected to grow over the next five years by more than 3%. During the same period, international trade is expected to grow faster: real world GDP is estimated to grow by an annual 4.7%, while the world trade (in volume) is expected to grow by a 6.7% rate.

As a whole, the economies of the MC are expected to grow at approximately the same rate (4.7%), (due to the statistical consequences of comparison with previous years).

3.2 Commercial exchange among the Mediterranean countries

As far as seaborne trade is concerned, we must keep in mind that the Mediterranean Sea plays a twofold role: it has always been the arena for exchanges (of goods, people, cultures) among regions located on its shores, and in the recent years it has been the key node for goods travelling between the East of the world (Asia, East Africa, the Arabian Gulf) and the West (Europe, America) and shipped via Suez. Thus, it concentrates a very strong flow of goods which: (*i*) have their origin and their destination close to the Mediterranean shores; (*ii*) are shipped in the Mediterranean basin and are directed outwards; (*iii*) arrive to the Mediterranean regions from the rest of the world; and (*iv*) just transit through the Mediterranean without being unloaded.

Then, if we want to point out the role of economic growth in MC – namely Middle East, Maghreb and the economies in transition – on seaborne trade in the Mediterranean basin, we must concentrate on international flows occurring *among* these countries.

According to EU's DG-VII (1999), in 1997 commercial flows of EU with MAC and MEC came to 41.3 billion ECU in import and 65.2 billion ECU in export, that is, 2% and 3% respectively of total EU import and export.

From the comparison of IMF data on total value of import and export for each country with data on value of goods imported/exported by EU countries, some remarks concerning the size of these variables can be drawn:

EU countries more involved in commercial exchange with the Middle East and Maghreb countries are Germany (8.6 billion ECU, France (8.6 billion

ECU) and Italy (7.5 billion ECU), which concentrate 60% of flows from MEC and MAC to EU, as well as 60% of export flows from EU to MAC and MEC (14.3 billion ECU exported from Germany, 13.0 from France and 11.6 from Italy).

These three European countries (Germany, France and Italy) represent about 30% of whole imports of Maghreb and the Middle East – i.e. flows imported by MAC and MEC from the rest of the world -, and nearly 31% of exports from Maghreb and the Middle East towards the rest of the world, while the whole EU represents about 50% of total Maghreb and Middle East exports and imports.

Therefore, the role of EU in the international trade of Maghreb and Middle East regions is quite outstanding, while those regions represent only 2% and 3% respectively, of EU import and export flows.

Commerce between EU countries and Eastern Europe is a little more relevant. EU export to East Europe amounts to 78.6 billion ECU, import from East Europe to 56.9 billion ECU. If weights instead of values are taken into account, figures show that EU mainly imports raw materials and semi-manufactures, while exporting final products: flow from EE to EU is 110 million tons, while the flow from EU to EE is 46 million tons (even if its value exceeds the opposite flow by more than one third).

Nevertheless, these figures represent only 4% and 3% respectively, of the EU total export and import. Moreover, the EE aggregate includes countries which are not relevant to our survey since the commerce with EU largely employs rail, road, waterways, so that we did not include it in the "FSC" aggregate (Czechoslovakia, the Czech and Slovak Republics, Estonia, Hungary, Lithuania, Latvia, Poland).

3.3 Seaborne trade among the Mediterranean countries

Coming to seaborne traffic in the Mediterranean Sea, the first relevant figure is given by container traffic in the Mediterranean ports. This datum appears significant for the purposes of this paper since economic growth and globalisation itself are causing, and are expected to cause also in the future the world trade to significantly outpace the world output as a larger part of global production has entered international commerce. It affects essentially maritime transport and in particular container market since most of the global commerce concerns manufactured or semi-manufactured goods instead of primary goods (see Drewry, 1996).

Growth in container traffic is clearly outlined by statistics. Main container ports scored in the period between 1993-99 a growth rate of 14.6%, passing from 7.6 million TEUs to over 17.3 million.

As Figure 10 shows, this traffic concentrates in most EU ports, and the degree of concentration is apparently growing: the share of EU Mediterranean ports on increase from 65% in 1993 to 68% in 1998. The remainder is almost entirely concentrated in MEC's ports (among which we include the transhipment port of Malta).

As far as EE ports are concerned, figures are quite fragmentary since reliable data for ports such as Belgorod-Dnestroskiy, Mariupol, Izmail, Kerch in Ukraine are missing. Little more satisfactory are stats concerning MAC's ports, due to the lack of data for the Libyan ports.

Anyway, the growth calculated for the four main areas shows an average annual rate over the period 1993-98 of 17.7% for EUC ports, of 12.2% for MAC ports, of 11.6% for MEC and of 11.5% for FSC ports.

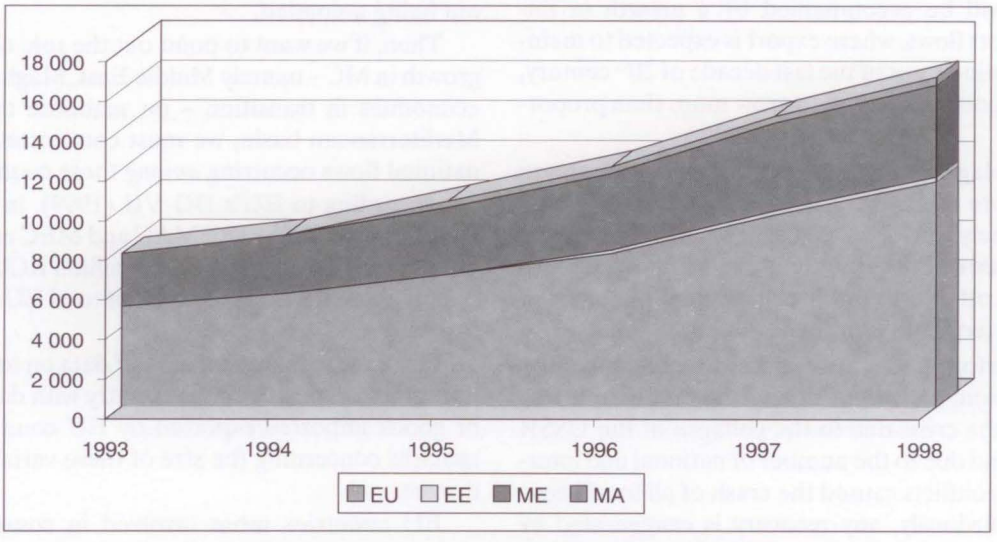

Figure 10 - Container throughput in 1993-98

Source: Drewry. 2000

There are at least two main reasons for the faster growth of EU ports:

- they belong to the advanced economies fully integrated in the globalisation process;
- in these countries there are some primary transhipment ports of the Mediterranean (such as Gioia Tauro and Algeciras), whose traffic is totally unrelated to the economic growth of the hinterland (moreover, the same box is calculated twice).

These data allow some relevant considerations.

First, containerisation is growing as more and more goods are containerised and the transhipment and hub-and-spoke organisation is spreading, namely in the Mediterranean basin and regarding long distances. There are forecasts according to which along the next five years transhipment is expected to increase by 40% in the EU Mediterranean ports and by 43% in the Middle East ports. Thus, in both areas transhipment would attain a share of 40% on total container transport (see Tables 7 and 8). For the entire Mediterranean basin, Drewry (2000) estimates a growth in port throughput demand of over 30 million TEUs (Figure 11).

Table 7 - Forecast global transhipment by regions (,000 TEU of port handling)

	1990	1995	2000	2005
South Europe	1,656	2,970	6,038	8,469
Middle East	968	2,235	4,050	5,787

Source: Drewry. 1997

Table 8 - Forecast transhipment incidence by regions (transhipment as % of total regional activity

	1990	1995	2000	2005
South Europe	25.5	28.5	36.0	40.0
Middle East	27.3	33.0	40.0	40.0

Source: Drewry. 1997

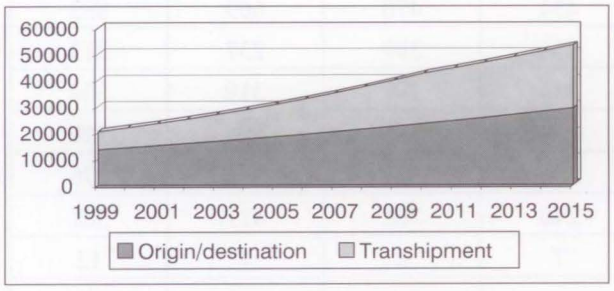

Figure 11 - Forecast demand of container throughput to 2015

Source: Drewry. 2000

As a conclusion, in the mid-run we can expect: (*i*) economic growth in MC, (*ii*) (more than proportional) growth in their exchanges, (*iii*) growth of the share of containerisation in total seaborne trade, and (*iv*) greater diffusion of hub-and-spoke technique. As a consequence, containerised seaborne trade is expected to grow by 6.1% per year in the surveyed area. What must be investigated is whether the groups of countries we are considering will be able to face increase in transport demand, namely as far as port facilities are concerned, namely in sectors, such as container traffic and maritime transport, characterised by high specialisation, capital intensity, relevant tying-ups.

4. THE MEDITERRANEAN PORTS CAPACITY FORECAST IN THE MEDIUM/LONG RUN

The data supplied in the previous paragraph clearly show that intra-Mediterranean shipping is supposed to increase dramatically in the mid-term.

As we have just explained, this increase is particularly due to entrepreneurial policies aiming at the displacement of technical and material resources, made easier by low-cost shipping procedures and standardised means of transport (basically containers, which are extremely adaptable and convenient for transfer services). The more cargoes are shipped in containers, the more transhipment-structured services expand and are successful. Certainly, such ship traffic increase is undoubtedly tied up with an economic growth that is expected in the whole Mediterranean area (making the necessary aforesaid distinctions).

But we have also seen that intra-Mediterranean commercial exchanges are rather exiguous when compared with the global shipping and ship traffic hosted by this sea.

Once these preliminary facts are highlighted, we need to understand if the countries considered in this study are effectively making the necessary efforts to make the Mediterranean shipping growth real. Our attention will be focused on containerised traffic, given that containers are expected to become the mainstream transfer system for goods at their primary or further manufacturing stages.

This document is essentially based on the latest Drewry report (2000), integrated with the Ports database (on 1999) edited by Fairplay and enriched, as far as it was possible, with information provided by specialised press. This study highlights the same problems as noticed in the preceding paragraph, such as large blank spaces in the data relating to Maghreb areas and the countries of the former Soviet bloc. Meanwhile – on the other hand – we can get a large amount of data from both advanced economies and developing nations of Europe or the Middle East. Table 10 shows these data, with our comments below.

Table 9 - Container throughput in major Mediterranean ports **(000 TEU)**

	1993	1994	1995	1996	1997	1998
Genova	344	512	615	826	1180	1266
Savona	32	43	47	20	14	15
La Spezia	765	816	966	871	616	732
Livorno	361	371	424	417	501	538
Napoli	181	200	207	246	304	312
Salerno	145	169	198	209	220	251
Gioia Tauro	0	0	13	572	1449	2126
Ancona	64	50	43	45	69	75
Ravenna	171	181	193	191	188	173
Venezia	118	115	128	169	212	206
Trieste	150	143	150	174	202	171
Marsiglia	432	437	498	548	622	664
Barcellona	501	605	689	767	972	1070
Siviglia	26	40	47	45	59	60
Valencia	385	467	672	708	832	1003
Tarragona	41	41	36	34	33	31
Algeciras	807	1004	1155	1307	1538	1826
Pireo	537	517	600	575	684	889
Koper	60	61	58	64	66	73
Constatnza	44	41	69	86	86	98
Bar	15	20	20	25	4	7
Bourgas	5	6	7	9	14	18
Varna	28	25	30	40	51	45
Odessa	19	50	90	65	52	54
Malta	288	383	515	593	663	1072
Istanbul-Haydarpasa	232	180	257	329	330	323
Izmir	213	269	302	346	388	399
Mersin	117	131	148	182	268	242
Haifa	403	430	454	470	669	883
Limassol	221	266	266	399	237	213
Ashdod	272	304	334	297	319	364
Damietta	493	520	570	586	604	310
Alessandria	258	284	299	325	382	276
Port Said	171	191	240	362	411	381
Skikda	n.a.	n.a.	7	8	7	12
Annaba	n.a.	n.a.	n.a.	n.a.	n.a.	4
Algiers	70	100	120	133	127	145
Casablanca	148	169	187	195	201	229
Tangiers	6	6	7	7	7	7
Beirut	n.a.	n.a.	n.a.	n.a.	150	157

Source: Drewry. 2000; Fairplay. 1999

Over a period of 3-5 years the following container terminals are expected to reach full-scale activities: in the EU, those brand-new of Cagliari and Taranto (Italy) – which are respectively run by P&O Ports and Evergreen –, and Malaga (Spain); in the Middle East, Hayovel at Ashdod (Israel), La Valletta (Malta), Mersin and Derince (Turkey); in Eastern Europe, Constantza and Sulina (Rumania). On the whole, such an added (and/or brand-new built) port capacity will fully exceed 6,000,000 TEUs per year.

Beside this added port capacity, we also have to consider the constant process of modernisation, updating and enlargement of terminals already working in the container transfer sector. That involves all the European ports mentioned in the previous paragraphs and, undoubtedly, Haifa (Israel), Marsaxlokk (Malta) and Bar (Yugoslavia), too.

As far as containers' traffic goes, such new added port capacity is expected to meet demand increases in the medium term.

Expanding our horizon to around 2010-2015, port capacity is still destined to grow: there are already some enlargement projects for the terminals of Bourgas (Bulgaria), Constantza (Romania), Iskenderun (Turkey), Tangiers (Morocco), Port Said (Egypt), Barcelona, Algeciras and Valencia (Spain), Marseilles (France), Gioia Tauro and Genoa (Italy), so as to reach an added port capacity certainly over 8,000,000 TEUs. We can also reckon that – at that stage - the expanded Lisbon port and the new Sines terminal (Portugal), as well as Huelva and Gibraltar terminals (Spain), will be ready.

Figure 12 compares, at a regional level, current throughput (1998) and estimated port capacity (2015).

In Figure 13 the inside ring is about 2015 and the outside one is based on the 1998 data: when reading such regional rates of container port capacity it is possible to say that EU Mediterranean countries are likely to improve their hegemony as a result of advanced transhipment-dedicated container terminals. This latest comment is based on the data edited by Drewry (2000).

Certainly this short outlook on port activities is not fulfilling. Anyway we can state that an increase of port

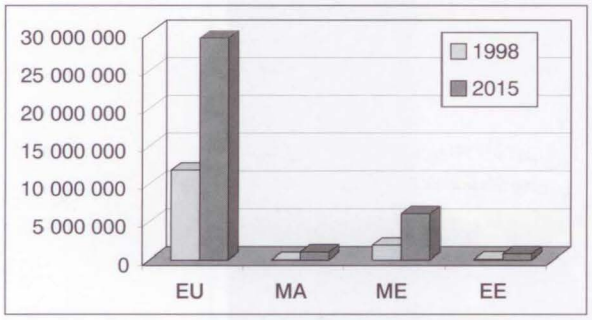

Figure 12 - Estimated port capacity to 2015

Source: Drewry. 2000

Table 10 - Estimated container throughput by 2015

Port	Country	1998 throughput (TEU)	Estimated throughput by 2015
Bourgas	Bulgaria	18,046	168,046
Port Said	Egypt	425,000	2,175,000
Marseilles	France	660,232	960,232
Pireus	Greece	933,096	1,433,096
Ashdod	Israel	422,000	822,000
Haifa	Israel	759,000	1,459,000
Cagliari	Italy		1,000,000
Genova	Italy	1,266,000	3,366,000
Gioia Tauro	Italy	2,125,640	4,125,640
La Spezia	Italy	731,288	2,431,288
Livorno	Italy	535,490	785,490
Napoli	Italy	319,686	669,686
Salerno	Italy	250,846	550,846
Taranto	Italy		1,600,000
Beirut	Lebanon	300,000	600,000
Marsaxlokk	Malta	1,071,669	1,471,669
Tangiers	Morocco	7,500	1,007,500
Sines	Portugal		1,300,000
Constatnza	Romania	98,260	598,260
Algeciras	Spain	1,825,614	3,625,614
Barcelona	Spain	1,095,113	2,495,113
Malaga	Spain		750,000
Valencia	Spain	1,005,397	1,755,397
Gibraltar	Spain	2,500	1,002,500
Derince	Turkey	5,087	1,005,087

Source: Drewry. 2000

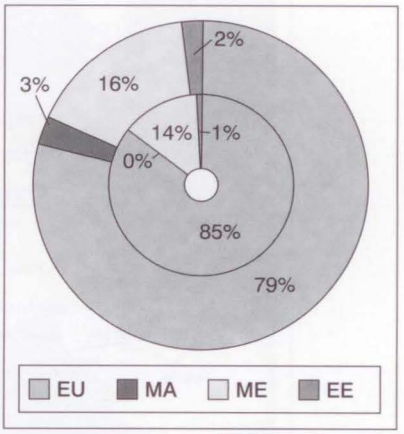

Figure 13 - Container port capacity in 1998 and 2015 by regions

Source: Drewry. 2000

traffic due to an accelerated economic development of extra-EU Mediterranean countries will not cause by itself a situation where demand exceeds supply. On the contrary, the analysis (even if not yet complete) of Mediterranean port development plans shows a stage of potential growth in the next 15 years: and that send away the risk of port undercapacity.

5. THE ROLE OF THE EU IN ENHANCING THE ECONOMIC DEVELOPMENT OF MEDITERRANEAN COUNTRIES

Even if we are focusing on seaborne trade among the Mediterranean countries, it is obvious that upgrading inland transport infrastructures is a key issue, since those links that are indispensable for cargoes going to (or leaving) the port from (or for) the points of production (or consumption) of goods. Otherwise traffic growth forecasts outlined by data mentioned in the previous paragraphs would remain only a potential growth.

This topic would deserve much more space than what we can provide in these notes. However some aspects can usefully be highlighted.

Transport infrastructures are considered fundamental not only in order to enhance the whole transport system (both nodes and links) but also for their capacity to realise a common market.

Since 1996 the EU have decided to improve some crucial links forming the so-called Trans European Network and in the Essen Council 14 projects were considered as priorities (Figure 14). Most of those projects, listed in Table 11, will be completed by around 2005.

In the same year the Commission set up a process of Transport Infrastructure Needs Assessment (TINA) to supervise and co-ordinate the development of an integrated transport network in 11 applicant countries (Poland, the Czech Republic, Hungary, Slovenia, Estonia, Bulgaria, Latvia, Lithuania, Romania, Slovakia and Cyprus).

Around 2010, the priority projects of TINA should be complete and the EU should be larger than it currently is, so the idea is to co-ordinate infrastructure projects in applicant countries with those implemented in the EU.

In June 1999 the TINA group approved a network of infrastructures including 18,030 kilometres of roads, 20,290 kilometres of railways, 38 airports, 13 seaports and 49 river ports for the whole cost of about 90 billion EUR between now and 2015.

Then the European aid is moving from the south Mediterranean countries to Central and Eastern Europe as clearly stated by the list of loans granted by the European Investment Bank during the last three years.

6. CONCLUSIONS

The context outlined in the previous paragraphs allows some considerations, which can be summarised as follows:

1. Available statistics clearly highlights two relevant and increasing gaps, in demographic and economic dynamics of Mediterranean Countries respectively. From their cross comparison, four groups of

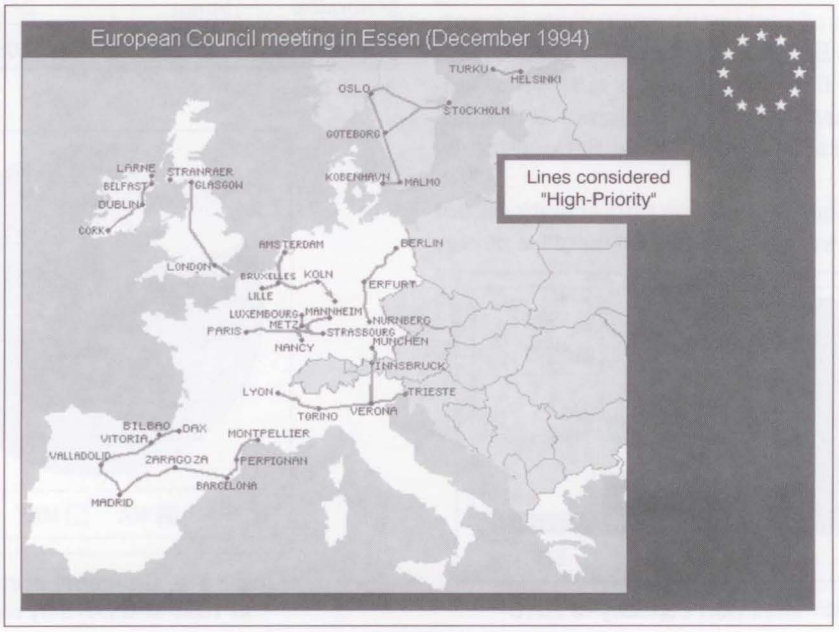

Figure 14

Table 11 - TEN-T priority projects

Projects	Total investment (MEUR)	Countries involved
High-Speed Train / Combined Transport North-South	15,102	ITA. AUT. GER
High-Speed Train PBKAL	17,232	FRA. BEL. GER. NED. GBR
Greek motorways	9,242	GRE
Multimodal link Portugal-Spain-Central Europe	6,212	POR. ESP
Conventional Rail	357	EIR
Malpensa 2000	1,047	ITA
Oresund fixed rail/road link Denmark-Sweden	4,158	DAN. SVE
Nordic triangle multimodal corridor	10,070	SVE. NOR
Ireland/United Kingdom/Benelux Road link	3,629	EIR. GBR
West Coast Main Line	3,000	GBR
Betuwe Line	4,094	NED. GER
High-Speed Train/Combined Transport France-Italy	18,260	FRA. ITA
High-Speed Train South	14,072	ESP. FRA
High-Speed Train East	4,777	FRA. GER

Source: EU Commission

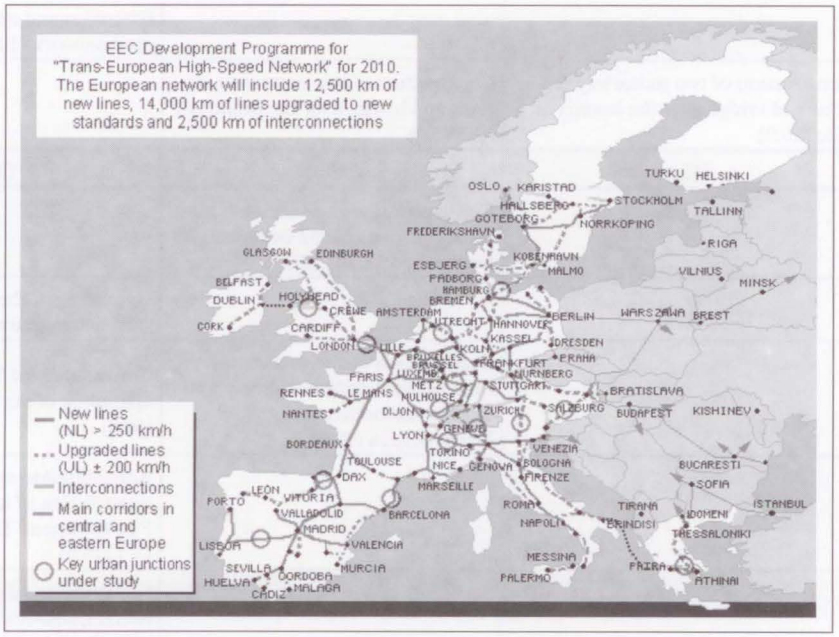

Figure 15

countries emerge, characterised by different combinations of trends: European Union Countries, Middle East Countries, Former Socialist Countries, Maghreb Countries.

2. Possible output of the mentioned double gap is the scenery that we called "three-speed Mediterranean" where the gap between advanced (basically, EUC) or emerging (MEC) countries, and those facing severe economic crises (FSC, MAC) is likely to get deeper and deeper.
3. Present commercial exchanges among countries of different groups are relatively low, if compared namely to other flows involving the Mediterranean basin: traffic to *or* from MC, as well as traffic in transit through Suez and Gibraltar. Consequently, even their volume and their present and forecast variations have relatively little consequences on present and projected capacity of the Mediterranean port facilities. As far as projected capacity and estimated flows are concerned, it seems that

Table 12 - Finance contracts signed by the European Investment Bank (millions EUR)

Country	1997	1998	1999
Morocco	Rehabilitation of Marrakesh-Casablanca railway line (85.0)		Track realignment and dualling of rail line between Sidi Kacem and Fez (55.0) Acquisition of port equipment and modernisation of infrastructure at eight major ports (30.0) Modernisation and upgrading of breakwaters and jetties in six main ports (32.0)
Tunisia	Rehabilitation of Tunis-Sfax--Gabès railway line (25.0) Upgrading of road network in Greater Tunis area; construction of by-passes around Sfax. Sousse and Soliman (65.0)		
Maghreb	(150.0)	(0.0)	(117.0)
Gaza-West Bank		Rehabilitation of local. regional and access roads (20.0)	
Jordan	Modernisation and extension of industrial port of Aqaba (30.0)		
Lebanon	Rehabilitation of Tabarja-Chekka motorway section and construction of Chekka-Tripoli section on Beirut-Tripoli trunk road (20.0)		
Cyprus			Extension and upgrading of main road network (100.0)
Egypt	Construction of two motorway sections and bridge over the branch of Nile (10.0)	Construction of two motorway sections and bridge over the branch of Nile (5.0)	
Middle East	(60.0)	(25.0)	(100.0)
Albania		Construction of two-lane dual carriageway road section between Durres and Tirana (22.0)	
Bulgaria			Upgrading of the Plovdiv-Dimitrovgrad-Svilengrad rail line (80.0)
Macedonia		Construction of two sections of road network between Skopje and Tetovo and between Stobi and Demir Kapija (70.0)	Construction of Skopje bypass and upgrading of north-south highway (60.0)
Romania			Rehabilitation and completion of construction of motorways on Pan-European Transport Corridor IV (210.0)
Slovenia			Construction of motorway section between Blagovica and Vransko on Priority Corridor V of Trans- European Road Network (175.0) Construction of motorway section between Kozina and Smirn on Priority Corridor V of Trans-European Road Network (160.0)
Eastern Europe	(0.0)	(92.0)	(685.0)

Source: European Investment Bank

there will be no under-capacity, namely in container traffic, whose share in seaborne traffic is rapidly growing.

4. Yet, the circumstance that most port facilities are built and run to match the demand for extra-Mediterranean traffic implies that the increase in

capacity tends to concentrate in EUC and MEC. Infrastructure development follows the dramatic growth in world international trade, rather than the growth of MC and of their mutual exchanges. For this reason, it almost solely involves the most advanced countries in the Mediterranean areas, and/or those geographically closer to extra-Mediterranean traffics.

5. It ensues further risk that, against the growing containerisation of seaborne trade, port and transport facilities of least advanced countries become more and more inadequate, and can present further barrier to their integration and development.
6. In this context, anyway, the position of MAC and of FSC should be differentiated: for the latter – a number of which are also applicants for joining the EU – EU projected land transport infrastructures (Trans European Networks and others) allow better expectations, namely in the prospect of recovery in domestic growth.

This scenery confirms the importance of transport policies as a tool for the integration between the economies of the Mediterranean Countries. So far, it has not been so, and relevant development in transport system has represented merely a response to increased demand coming from outside the area.

The problem is not one of under-capacity, that should not occur, but the risk that the economic gap between different groups of MC would become deeper, instead of being reduced.

Against this perspective, policies aiming at creating favourable economic environment and high logistic and commercial accessibility are necessary in order to attract firms and foreign direct investments, and are crucial for preventing the increase of gaps. In this context transport infrastructures play the key role, but in a perspective which is somehow reversed: no longer as an answer to the question *"Are they sufficient as to the forecast growth?"*, but rather *"Will they help to cause a not-forecast growth?"*

Of great importance might be such policies as:

- development of the Mediterranean Short Sea Shipping;
- development of container terminals and facilities in MAC and FSC (in the latter it is partly projected);
- completion of the main North-South axes of the European high-capacity and high-speed railway network;
- EU maritime policies, namely in the field of harmonisation of pricing and fiscal policies for shipping and stevedoring;
- incentives to partnerships between ports and logistic facilities, and to consortia of firms, belonging to countries of different groups;
- development by EUC of initiatives in the field of professional and managerial training in the industries of shipping, stevedoring, transports and logistics, addressed to the Mediterranean non-EU countries;
- development of free trade area, either (for some countries) by joining EU, or by multilateral commercial agreements.

This is the direction in which transport policies of the Mediterranean Countries should move, as well as EU policies aiming at the Mediterranean integration – by means of partnership tools and financial tools such as the European Bank for Investments – in order to enhance opportunities related to potential economic interdependencies of different regions of the Mediterranean basin.

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1. §§ 1, 2, 6 are by E.Musso (musso@economia.unige.it); §§ 3, 4, 5 are by C.Ferrari (ferrari@economia.unige.it).
2. A wide debate is taking place, often on ideological rather than scientific basis, on pros and cons of globalisation, and on their spatial distribution. Most literature agrees that globalisation brings about a relevant overall benefit for all countries taking part in it, even if existing differences usually lead to a concentration (at least initial) of greater benefits in most advanced countries. For an up-to-date survey see Globalization Ledger by A.T.Kearney's Global Business Policy Council, available on the Internet at the web-site: www.atkearney.com/ATK/Publications.
3. Source: World Trade Organisation
4. See: Launhardt (1872); Weber (1909); until Christaller (1933), Lösch (1940) and eventually Isard (1956).
5. In the Figure, we necessarily employed the logarithm scale which largely reduces the visual effect.

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